

# CATALOG 2025



# NUC UNIVERSITY CATALOG

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# History

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NUC University is a private institution of higher education dedicated mainly to offering doctorate, master's degrees, post baccalaureate certificates, bachelor's degree, associate's degree and diploma programs in the fields of allied health, nursing, business administration, education, office systems, technology, criminal justice, psychology, construction trades, culinary arts, informatics, arts, beauty, and aviation. It was incorporated under the laws of the Commonwealth of Puerto Rico on September 8, 1982, file number 52,584, under the name of National College of Business and Technology. In 1980, a Steering Committee organized by Mr. Jesús Siverio Orta, Esq. worked on the planning and organization of the institution. On April 1, 1982, NUC University began its educational operations in Bayamón and, in June of the same year, the Committee acquired the Polytechnical Community College. At the same time, the Institution obtained from the Puerto Rico Department of Education its operating license with the same rights, privileges and obligations as the predecessor Institution. It began its educational programs in Bayamón in July 1982. The initial programs offered were Pharmacy Assistant and Secretarial Sciences. The first group of students from these two programs graduated in July 1983. The Institution initiated its educational program with four classrooms on the third floor of the Ramos Building located in the city of Bayamón. To complement the educational programs offered at that time, the facilities also included a Typing Laboratory, Pharmacy Laboratory and a Library.

In March 2007, National College of Business and Technology, Inc. (the first-level owner of NUC) was purchased by Leeds IV Advisors, Inc. In February 2018, NUC acquired NUC University – IBC Technical Division, NUC University – Florida Technical College (NUC-FTC), and The Digital Animation & Visual Effects School (The DAVE School).

In March 2023, NUC was purchased by Renovus Holdings I, LLC, an affiliate of Renovus Capital Partners. Renovus also owns Columbia Central University, and the two institutions plan to merge upon receipt of regulatory approvals, after which they will operate under the NUC name and institutional structure.

NUC University currently operates the following units in Puerto Rico: Bayamón Campus (1982), Ponce IBC Technical Division (1983), Arecibo Campus (1984), Mayagüez IBC Technical Division (1984), Guayama IBC Technical Division (1986), Fajardo IBC Technical Division (1991), Manatí IBC Technical Division (1992), Caguas IBC Technical Division (2000), Río Grande Campus (2003), Ponce Campus (2007), Caguas Campus (2011), Escorial Campus (2012), Arecibo IBC Technical Division (2012), Bayamón IBC Technical Division (2012), Los Colobos IBC Technical Division (2014), Aguadilla IBC Technical Division (2014), Moca IBC Technical Division (2014), Yauco IBC Technical Division (2014), Mayagüez Campus (2017). The Institution offers distance education through Bayamón Campus – Online Division (2007) and professional development in the Continued Education Division (2016). In addition, NUC University operates the following units in Florida: NUC South Florida, FTC-Kissimmee, FTC-Orlando, FTC-South Miami, FTC- Deland, FTC-Lakeland, FTC-Pembroke Pines, FTC-Tampa, and The Digital Animation & Visual Effects School (The DAVE School).

# Mission, Vision, Institutional Priorities

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## Mission

At NUC University, our goal is to develop individuals from all backgrounds into enterprising professionals, successful in their field of study and employment, proud to belong to NUC and who contribute to their communities.

## Vision

To be recognized as a university that cares about its students and prioritizes their success through centers of excellence, innovative and diverse learning modalities, quality student services, all of which leads to developing quality professionals with adaptability, integrity and values.

## Institutional Priorities

1. **Academic Quality** - Affirm the importance of academic quality through systematic assessment and continuous improvement of the institution's academic offerings. Also, provide academic offerings based on learning outcomes and personal values directly tied to the labor market. Student services complement the learning process and contribute to the development of students' experiences. NUC's focus on service demonstrates its commitment to quality student services that support the teaching-learning process and foster educational excellence.
2. **Centers of Excellence** - Elevate certain areas of study such as Healthcare, Business, and Construction Trade to Center of Excellence status
3. **Service, Development, and Student Experience** - Provide a college experience centered on student experiences, development, and services that prepare graduates to lead and excel in the local or global geographic area where they decide to live.
4. **Organizational Structure and Culture** - In strategic partnership and collaboration with business leaders, provide management, development and implement programs that contribute to achieving business and employee goals with integrity, professionalism, compliance, communication and trust.
5. **Brand Strengthening and Positioning** - NUC will be recognized as a university that puts the student first and that is the institution of choice for Puerto Rico and Florida populations and underserved communities in the United States looking for quality degrees highly valued by employers, in English, Spanish, or bilingual, through a flexible mix of classes online, hybrid and on-ground and with programs that focus on developing the skills necessary to be successful in the job market.
6. **Financial Strength** - Achieve administrative capability and successfully conduct the institution's financial operations.



# Institutional Learning Goals

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NUC University supports its student body and prepares them for the effective achievement of their academic goals. NUC identifies the following basic competencies that are necessary to build a solid foundation for the academic experience at the non-degree, under graduate as well as graduate levels and assures that the students develop the necessary skills, knowledge and attitudes for future employment, to continue graduate studies, responsible citizenship, and a commitment for continuous learning throughout their whole life. These competencies are aligned with the mission, values, and institutional goals, as well as with all the academic offerings of NUC University.

Among the expected outcomes for student learning, are the following basic competencies:

**1. Professional competency and technical skills**

Capacity to apply creatively the knowledge and skills of their respective field of studies and inserting themselves successfully in the labor market, contributing effectively to the economic, social and political progress of their environment.

**2. Communication skills**

Capacity to express and exchange ideas effectively through listening, speaking, reading, writing and other appropriate modes of interpersonal expression and workforce vocabulary.

**3. Critical and Creative Thinking**

Capacity to analyze, apply critically and creatively their professional or technical competencies in the management of complex situations, decision making, problem solving, understanding, adapting, and generating changes, while at the same time managing them effectively.

**4. Logical reasoning**

Capacity to utilize quantitative and qualitative information in logical the decision-making and problem solving process.

**5. Information Literacy and Technological Competency**

Capacity to apply in an ethical and critical manner the knowledge and skills related to the development and processes in information and technological environments in an effective and efficient way, considering the personal, professional, technical, and citizen dimensions.

**6. Ethical and moral behavior**

Capacity to reason ethically and morally when facing complex situations, making informed decisions, and solving problems, showing respect towards laws and persons, intellectual honesty, social responsibility, ethical judgment, respect to life and environment conservation.

**7. Respect to diversity**

Capacity to recognize and value the richness of human experiences, understanding the multicultural, gender, political, and other social differences, the needs of people with functional diversity and the capacities that enrich living together respecting the human experience in a globalized world.

# Governance

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The governance of NUC University is carried out by a Board of Directors and a Board of Trustees. The Board of Trustees has the primary responsibility for ensuring that the Institution achieves its mission and purpose and maintains its academic integrity. Currently, these boards are composed of the following members:

## Board of Directors (Corporate Board)

Atif Gilani .....	Director
Brad Whitman .....	Director
Ruchi Hazaray .....	Director

## Board of Trustees (Institutional Board)

Alberto Estrella, Esq.....	Chairperson
Ruchi Hazaray .....	Vice-Chairperson
Sara Salva.....	Secretary
Luca Di Leonardo. ....	Member
Ana Cáceres Rojas, Esq.....	Member
Marcos Vidal.....	Member
Michael Bannett .....	Non-Voting Member

## Senior Leadership Team

Michael Bannett.....	Chief Executive Officer
Josué Medina .....	Chief Financial Officer/Interim President
Gonçal Bonmati .....	Chief Strategic Officer
Rich DeJong .....	Chief Information Officer
Dr. James Michael Burkett.....	President US Operations
Ellis Murtha .....	Senior VP of Compliance and Regulatory Affairs
Manuel Meléndez.....	VP of Online Division
Dr. Lydia M. Collazo.....	VP of Academic Affairs
Dr. Daliana Rivera .....	VP of Puerto Rico Operations
Pura López .....	VP of Human Resources
Betsy Vidal .....	VP of Student Affairs

# Academic Board

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The purpose of the NUC University Academic Board is to promote and maintain the highest standards in teaching and research and to safeguard the academic freedom of the University. Review policies, guidelines and procedures in relation to academic matters and provide constructive feedback and advice on the quality of educational services.

## Executive Committee of the Academic Board

President .....	To be elected
Vice President .....	To be elected
Secretary .....	To be elected

## Faculty Representatives

Dr. Irma Meléndez Castro.....	NUC University – Arecibo
Prof. Mildred Báez López .....	NUC University – Bayamón
Dr. Ferdinand Díaz Vázquez .....	NUC University – Online
Prof. Miguel A. González Rivera .....	NUC University – Caguas
Prof. Moraima Febres De Jesús .....	NUC University – Escorial
Dr. Grasly Loperena Cordero.....	NUC University – Mayagüez
Dr. José Vázquez Padilla .....	NUC University – Ponce
Prof. Eulalio Vázquez Rodríguez .....	NUC University – Río Grande
Prof. Luz M. Santiago Reverón .....	NUC University – IBC Technical Division – Aguadilla
Prof. Genoveva Colón Padua.....	NUC University – IBC Technical Division – Arecibo
Prof. Juan González Ramos.....	NUC University – IBC Technical Division – Bayamón
Prof. Carmen I. Cora Morales.....	NUC University – IBC Technical Division – Caguas
Prof. Marta Ramos Torres.....	NUC University – IBC Technical Division – Guayama
Prof. Nannette Y. Nieves Osorio .....	NUC University – IBC Technical Division – Los Colobos
Prof. Manuel A. Quijano Quijano .....	NUC University – IBC Technical Division – Manatí
Prof. Yadhira Ramírez Luciano.....	NUC University – IBC Technical Division – Mayagüez
Prof. Alex Giménez Rosario.....	NUC University – IBC Technical Division – Ponce
Prof. Estefanie Torres Vega .....	NUC University – IBC Technical Division – Yauco
Prof. Courtney Hatcher.....	NUC University – FTC Deland
Prof. Mireysi Cabrera.....	NUC University – FTC Kissimmee
Prof. Greig Drury .....	NUC University – FTC Lakeland
Prof. Jennifer Boane .....	NUC University – FTC Orlando
Prof. Kevin Leistner.....	NUC University – FTC Pembroke Pines
Prof. Kelvin Saliers.....	NUC University – FTC South Miami
Prof. Carlos Linares.....	NUC University – FTC Tampa
Prof. Patrick Salamon.....	NUC University – The Dave School
Dr. Francisco Felices Sánchez .....	Columbia Central University – Bayamón
Prof. Marilyn Almodovar Rosario.....	Columbia Central University – Caguas

## Deans and Academic Directors

Prof. Janis González López.....	Academic Dean – NUC University – Arecibo
Prof. Kamir Concepción Reyes.....	Academic Dean – NUC University – Bayamón
Prof. Solmarie Martínez Del Valle.....	Academic Dean – NUC University – Caguas
Prof. Miguel Rosario Lozada .....	Academic Dean – NUC University – Escorial
Dr. Grelliane Barreto Velázquez.....	Academic Dean – NUC University – Mayagüez
Prof. Deborah Alvarado Soto.....	Academic Dean – NUC University – Ponce
Prof. Magda Urdaneta Feliciano.....	Academic Dean – NUC University – Río Grande
Prof. José Martínez Agosto .....	Academic Dean – NUC University – Online División
Prof. Cristina Rosado Silva .....	Academic Director – NUC University – IBC Technical Division – Aguadilla
Prof. Enrique Reyes Guzmán.....	Academic Director – NUC University – IBC Technical Division – Arecibo
Prof. Giselle C. Hernández .....	Academic Director – NUC University – IBC Technical Division – Bayamón
Prof. Lilliam Rivera Bermúdez .....	Academic Director – NUC University – IBC Technical Division – Caguas
Prof. José M. Alverio Collazo .....	Academic Director – NUC University – IBC Technical Division – Guayama
Dr. Jessica Meléndez Cruz .....	Academic Director – NUC University – IBC Technical Division – Los Colobos
Prof. Luz Manuel Bou .....	Academic Director – NUC University – IBC Technical Division – Manatí
Prof. Brenda L. Sánchez Mercado .....	Academic Director – NUC University – IBC Technical Division – Mayagüez

Prof. Griselle Vázquez Torres .....Academic Director – NUC University – IBC Technical Division – Ponce  
 Prof. María del C. Plaza Luciano .....Academic Director – NUC University – IBC Technical Division – Yauco  
 Dr. Maria R. Rivera .....Senior Dean of Online Operations and Academic Affairs – FTC – Deland  
 Ms. Maribel Escabi .....Academic Dean – NUC University – FTC – Kissimmee  
 Dr. Yadira Santiago .....Academic Dean – NUC University – FTC – Lakeland  
 Dr. Arkil Starke .....Academic Dean – NUC University – FTC – Orlando  
 Dr. Eddy Jorge .....Academic Dean – NUC University – FTC – Pembroke Pines  
 Dr. Ángel Báez .....Academic Dean – NUC University – FTC – South Miami  
 Ms. Cassandra Geddes .....Academic Dean – NUC University – FTC – Tampa  
 Ms. Jasmine Carpenter .....Academic Dean – NUC University – FTC – Dave School  
 Dr. Brenda Hernández Rivera .....Academic Director – Columbia Central University – Bayamón  
 Prof. Aida Ramírez Vázquez .....Academic Director – Columbia Central University – Caguas

### **Representative of Nursing Faculty**

Prof. Pedro Vargas Ortiz .....Nursing Director – NUC University – Escorial

### **Representative of Registrars Office**

Ms. Karla González Cartagena .....Corporate

### **Representative of Student Affairs**

Ms. Solimar Calo .....Corporate

### **Representative of Educational Resource Centers**

Prof. Alma Sánchez Berenguer .....Corporate

### **Representative of Continuing Education**

Ms. Ivelisse Mercado García .....Corporate

### **Ex-Office Members**

Dr. Lydia M. Collazo Bencón .....VP Academic Affairs NUC University  
 Prof. Yaran K. Correa Prado .....VP Academic Affairs NUC University – IBC Technical Division  
 Prof. Leiby Adames Boom .....VP Academic Affairs NUC University – Florida Technical College  
 Dr. Dolymari García .....VP Program Development NUC University  
 Dr. Aixa M. Flores Pérez .....Associate VP Nursing Programs NUC University

# Authorizations and Accreditation

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## State Authorization

NUC University is an institution authorized by the Board of Postsecondary Institutions (JIP) through the institutional license 2024-311. **Junta de Instituciones Postsecundarias (JIP)**, Oficina de Registro y Licenciamiento de Instituciones de Educación, Departamento de Estado, Tel. (787) 722-2121 - PO Box 9023271, San Juan, Puerto Rico 00902-3271 - Calle San José, San Juan, Puerto Rico 00901.

## NC-SARA Authorization

NUC University has been approved to participate in the National Council for State Authorization Reciprocity Agreements. [nc-sara.org/](https://nc-sara.org/)

## Institutional Accreditation

NUC University (NUC) is an accredited institution and a member of the Middle States Commission on Higher Education (MSCHE or the Commission) [www.msche.org](https://www.msche.org). NUC's NUC University – IBC Technical Division (NUC-IBC), NUC University – Florida Technical College (NUC-FTC), The Digital Animation & Visual Effects School (The DAVE School), and Hillsboro Aero Academy (HAA) are included in this accreditation. NUC's accreditation status is Accreditation Reaffirmed. The Commission's most recent action on the institution's accreditation status on 2019 was to reaffirm accreditation. MSCHE is recognized by the U.S. Secretary of Education to conduct accreditation and pre-accreditation (candidate status) activities for institutions of higher education including distance, correspondence education, and direct assessment programs offered at those institutions. The Commission's geographic area of accrediting activities is throughout the United States.

NUC has four additional academic units: NUC University – IBC Technical Division (NUC-IBC), NUC University – Florida Technical College (NUC-FTC), The Digital Animation & Visual Effects School (The DAVE School); and Hillsboro Aero Academy (HAA). Information about NUC, NUC-IBC, NUC-FTC, The DAVE School, and HAA is available at <https://nuc.edu/>, <http://tecnicos.nuc.edu/>, <https://ftccollege.edu/>, <http://dave.nuc.edu>, and <https://flyhaa.com/>.

## Programmatic Accreditation

### Accreditation Commission for Education in Nursing (ACEN)

NUC University's nursing education program (Bachelor's Degree in Science in Nursing; Associate's Degree in Nursing) is accredited by the Accreditation Commission for Education in Nursing (ACEN), 3390 Peachtree Road NE, Suite 1400 Atlanta, GA. 30326; (404) 975-5000.

### Council for the Accreditation of Educator Preparation (CAEP)

The Master's Degree in Education with specialty in Educational Leadership is accredited based on the Council for the Accreditation of Educator Preparation (CAEP) Standards through Fall 2027. CAEP is a CHEA recognized national accreditor for educator preparation. <https://caepnet.org/provider-search> (This accreditation applies to Arecibo, Bayamon-Online Division and Río Grande campuses. Does not apply to NUC University campuses in Florida, US).

### American Culinary Federation Education Foundation's Accrediting Commission (ACFEFAC)

The Associate Degree in Gastronomy and Culinary Management (NUC University – IBC Technical Division Ponce, Fajardo, Caguas, and Manatí) and the diploma level programs of Culinary Arts and International Pastry and Baking (NUC – IBC Technical Division / NUC University – Escorial Campus) are programmatically accredited by the American Culinary Federation Education Foundation's Accrediting Commission (ACFEFAC), 6816 Southpoint Pkwy Ste 400, Jacksonville, FL 32216, (904) 824-4468.

## Examination Boards

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- Junta Dental Examinadora
- Junta Examinadora de Barberos y Estilistas en Barbería
- Junta Examinadora de Embalsamadores de Puerto Rico
- Junta Examinadora de Enfermeras y/o Enfermeros
- Junta Examinadora de Especialistas en Belleza
- Junta Examinadora de Farmacia de Puerto Rico
- Junta Examinadora de Maestros y Oficiales Plomeros
- Junta Examinadora de Peritos Electricistas
- Junta Examinadora de Técnicos de Emergencias Médicas
- Junta Examinadora de Técnicos de Refrigeración y Aire Acondicionado
- Junta Examinadora de Tecnólogos Radiológicos en Imágenes de Diagnóstico y Tecnólogos en Radioterapia
- Junta Examinadora de Terapeuta de Masaje Profesional

## Language Options for NUC's Programs

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NUC University's programs are available in Spanish and some programs are available in English language. Language availability varies by program. See program pages for language availability. Students should only enroll in classes and programs delivered in English at NUC University if they have adequately mastered the English language (reading, writing, and speaking). Likewise, students should not enroll in courses and programs delivered in Spanish at NUC University unless they have an adequate master of the Spanish language. No test will be used to determine the student's first language.

# Locations Directory

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## ARECIBO REGION

### Arecibo Campus

Arecibo Centro Plaza  
Calle M. Pérez Avilés #191  
Ave. Víctor Rojas  
Arecibo, Puerto Rico 00614  
Tel. (787) 879-5044

### IBC Technical Division - Arecibo

Avenida Víctor Rojas,  
Esquina Calle Cervantes, Barrio Pueblo,  
Arecibo, Puerto Rico 00612  
Tel. 787-880-4019

### IBC Technical Division - Manatí

Carretera #2, Km. 49.7, Barrio Tierras Nuevas,  
Manatí, Puerto Rico 00674  
Tel. 787-854-6634

## BAYAMÓN REGION

### Bayamón Campus

National University College Plaza Building, Km. 11.2 State  
Road #2,  
Bayamón, Puerto Rico 00960  
Tel. (787) 780-5134

### IBC Technical Division - Bayamón

Carretera #2, Km. 15.3, Barrio Hato Tejas,  
Bayamón, Puerto Rico 00961  
Tel. 787-522-4325

## CAGUAS REGION

### Caguas Campus

Plaza San Alfonso  
190 Ave. Gautier Benítez  
Caguas, Puerto Rico 00726  
Tel. (787) 653-4733

### IBC Technical Division - Caguas

Carretera #1, Km. 33.7, Lote 3, Urbanización Bairoa,  
Caguas, Puerto Rico 00726  
Tel. 787-745-9525

### IBC Technical Division - Guayama

Carretera #3, Km. 138.2, Edificio Iraola, Barrio Machete,  
Guayama, Puerto Rico 00784  
Tel. 787-864-3220

## ESCORIAL REGION

### Escorial Campus

Ave. 65th Infantería, Km. 5.4, Bo. Sabana Llana,  
San Juan, Puerto Rico 00928  
Tel. 787-522-2300

## MAYAGÜEZ REGION

### Mayagüez Campus

Carr. # 2 KM. 156.5 Bo. Sábalo,  
Mayagüez, PR 00680  
Tel. (787) 652-0373

### IBC Technical Division - Aguadilla

Carretera #2, Km. 121.1, Barrio Caimital Alto,  
Aguadilla, Puerto Rico 00603  
Tel. 787-891-9403

### IBC Technical Division - Mayagüez

#75 Avenida Tenerife, Carretera #2, Barrio Sultana,  
Mayagüez, Puerto Rico 00680  
Tel. 787-833-4143

### IBC Technical Division - Moca\*

145 Ave. La Moca,  
Moca, Puerto Rico 00676  
Tel. 787-818-0337

## PONCE REGION

### Ponce Campus

Hospital San Cristobal  
Route # 506, Bo. Coto Laurel  
Ponce, Puerto Rico 00780  
Tel. (787) 840-4474

### IBC Technical Division - Ponce

Calle Ferrocarril #709, Esquina Concordia,  
Ponce, Puerto Rico 00717  
Tel. 787-840-6119

### IBC Technical Division - Yauco

Yauco Plaza Shopping Center 1, Local 49,  
Yauco, Puerto Rico 00698  
Tel. 787-992-0237

## RÍO GRANDE REGION

### Río Grande Campus

State Road # 3, Km. 22.1 Bo. Ciénaga Baja  
Río Grande, Puerto Rico 00745  
Tel. (787) 809-5100

### IBC Technical Division - Fajardo\*

Carretera #3, Km. 44.0, Calle Marginal,  
Bo. Quebrada Fajardo,  
Fajardo, Puerto Rico 00738  
Tel. 787-860-6262

### IBC Technical Division - Los Colobos

Carretera PR #3, Km. 13.8, Lote 3-A,  
Los Colobos, Bo. Canovanillas,  
Carolina, PR 00983  
Tel. 787-876-7819

*\*The IBC Technical Division of Moca and IBC Technical Division of Fajardo is in teach out. Reentry students may be re-enrolled only if they are scheduled to complete their program before the teach-out date.*

## ***STUDENT SERVICES***



# Admissions

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The Admissions Office is responsible for providing information regarding all academic programs offered at NUC University. This office evaluates the applications of candidates for admission. During an interview with the candidate, the prospective student receives information with respect to the admissions process as well as Institutional policies, rules and regulations. Likewise, Admissions representatives will direct all prospective eligible Military Service members to speak with their Educational Service Officer or Counselor within their Military Service prior to enrolling.

## Admission Policy

### *General Admission Requirements*

#### *Diploma and Undergraduate Requirements*

To be admitted as a regular undergraduate student at NUC University, each applicant must meet the following requirements and provide the following documents:

1. Complete and sign the admission application and enrollment agreement.
2. Be a high school graduate or have a recognized equivalent preparation:
  - a. High school completion must be verified by submitting the high school transcript or diploma. High school diplomas and/or transcripts submitted by prospective students are individually reviewed pursuant to the policy titled "Validity of High School Completion." Per this policy, NUC University will collect the proof of high school graduation provided by the prospective student, confirm whether the issuing high school has already been determined valid or invalid, where appropriate conduct additional review of high school validity, and determine whether the diploma appears to contain any irregularities.

A student's self-certification of high school graduation is not sufficient to validate a questionable high school credential. A student who cannot provide a high school transcript or a copy of their diploma because the high school the student attended closed may be permitted to provide a signed affidavit of high school completion. Such exceptions are only allowed in the most exceptional cases and must be reviewed and approved by the Admissions Committee.

NUC University verifies high school graduation documents in the admission process for students from accelerated schools in Puerto Rico. This policy applies to all incoming students who earned their high school diploma from an accelerated high school and do not provide documentation of an otherwise recognized equivalent to a high school diploma. The student must present the final high school transcript for the accelerated high school, complete the current Accelerated High School Information Form, and comply with the established criteria in it. The admission office will: 1) confirm the accelerated school maintains a license/registration with the Board of Postsecondary Institutions (or the appropriate predecessor or successor agency); 2) confirm the year the accelerated school diploma was awarded; and 3) based on the information reasonably available to NUC, determine whether the student completed their studies according to the applicable requirements according to the Board of Postsecondary Institutions (or the appropriate predecessor or successor agency).

- b. Documentation of successful completion of the general education development (GED) or other state sanctioned test or high school equivalency certificate is accepted as equivalent to high school completion.

- c. If the student is transferring from another post-secondary institution, an official college transcript documenting successful completion of 1) an associate's degree, 2) at least 60 semester or trimester credit hours or 72 quarter credit hours that does not result in the awarding of an associate's degree, but that is acceptable for full credit toward a bachelor's degree at any institution, or 3) at least 60 semester or trimester credit hours or 72 quarter credit hours in a bachelor's degree program, including credit hours transferred into the bachelor's degree program.
- d. Documentation of completion of home schooling at the secondary school level. Home schooled students must present a notarized Home-Schooled Student Certification and High School Transcript with courses, and grades. In the event this is not available, students must present evidence that they have passed the high school equivalency exam or GED. Home schooled students will also be required to complete and submit all admission documents required by the institution.
- e. Students who have graduated from a high school located in a foreign country (*outside the United States and its territories*) must submit evidence of their academic credentials validated by the Puerto Rico or Florida Department of Education, as applicable, or a NACES or AICE member agency.
- f. Students who were enrolled in an eligible program of study prior to July 1, 2012 may establish Title IV eligibility by passing an Ability to Benefit (ATB) test in Spanish or English (depending on the applicant's native language). If an applicant passed a Spanish language test (not rejected by the U.S. Department of Education) prior to November 1, 2015 and meets the other conditions described in this section, they may provide the test results. For tests administered on or after November 1, 2015, applicants for whom Spanish is their native language are required to have passed a Spanish language ATB test approved by the U.S. Department of Education. NUC confirms if an applicant may establish Title IV eligibility by reviewing in NSLDS whether the applicant previously received Title IV funds and/or by requiring the applicant to provide a transcript or other receipt that demonstrates enrollment in an eligible program. Eligible applicants are identified as follows:
  - the student attended an eligible program at any Title IV eligible institution prior to July 1, 2012 and attendance can be documented from NSLDS, or
  - the student, prior to July 1, 2012, officially registered at a Title IV eligible institution, and the student was scheduled to attend an eligible program.

Alternatively, the student was enrolled in a program of study prior to July 1, 2012 and completed at least six credit hours (or 225 clock hours) that are applicable toward a degree or certificate offered by NUC University.

3. If less than 21 years of age, present the inoculation certificate issued by the Puerto Rico Health Department. This requirement will not apply to students residing outside Puerto Rico.
4. Student must have earned a minimum grade point average (GPA) and any additional program requirements indicated in the Admission and Transfer Requirements Table for Undergraduate Programs, if applicable to the selected program of study. Students who do not have a high school grade point average must be evaluated by the Admission's Committee.
5. For programs in which there is an internship/practicum component or in which there is a requirement to be examined by an examining body, the prospect must be 18 years of age or older at the time the requirement applies. Students must also present a criminal record certificate issued by the Puerto Rico Police and a Health Certificate from the Department of Health. Additional requirements may apply; please see program-specific descriptions and materials for other programs with an internship/practicum or examination requirement.

## ***Graduate Requirements***

To be admitted as a regular graduate student, each applicant must meet the following requirements and provide the following documents:

1. Complete and sign the admission application and enrollment agreement.
2. Submit an official transcript documenting completion of a baccalaureate degree.
3. Meet the specific requirements for the graduate program to which they are applying as described in section 3.4

## ***Admission's Committee***

For all undergraduate programs, except for the Physical Therapist Assistant and Nursing programs, candidates with special qualifications who do not meet the GPA but meet all other admissions requirements may be evaluated by an Admission's Committee. This committee decides which of these candidates are admitted. The Admission's Committee will evaluate the candidates that did not obtain the minimum GPA for admission. Such evaluation may be done at the request of the student or upon the recommendation of the Admissions Office. The committee will consider the following factors:

- Be 21 years of age or older
- Have work experience
- Be head of the family
- Have special studies (continuing education) after high school
- Demonstrate special interest during the interview
- Present a recommendation letter from the high school counselor.

If in the opinion of the Committee, the candidate meets two or more of the above criteria, the student will qualify to be evaluated for admission as a regular student. The Committee may also recommend for those students admitted a limited course load, closer or more frequent follow-up and even special monitoring.

## ***Transfer Students***

Transfer students must present an official transcript of credits from their prior post-secondary institution(s).

- a. If the transcript is from a foreign university, the student will be responsible for having the document translated into English by a certified translator and evaluated by a certified foreign credential examiner who is a member of the National Association of Credential Evaluation Services. Certified documents should be sent to the Dean of Academic Affairs at the NUC University component to which the student is applying.
- b. If the student has successfully completed an associate's degree or higher or at least 60 semester or trimester credit hours or 72 quarter credit hours as demonstrated by their official transcripts, evidence of high school completion is not required. Otherwise, the student must submit documentation of high school completion or a recognized equivalent as described in this section. For transfer credit please refer to the [Transfer Credits Policy](#).

## Additional Admission Requirements for Certain Programs

### ***DIPLOMA PROGRAMS***

<b>Program</b>	<b>Minimum High School GPA</b>	<b>Transfer Students - GPA at Prior Postsecondary Institution</b>	<b>Other Requirements</b>
Mixology/Bartending	N/A	N/A	1. Must be 18 years of age when applying for admission.
Advanced Hair Styling and Design	N/A	N/A	<ol style="list-style-type: none"> <li>1. Copy of diploma or transcript of credits in Cosmetology or Barbering and Styling programs from NUC University - IBC Technical Division or from any other educational institution at the post-secondary technical level appropriately accredited.</li> <li>2. Copy of diploma or transcript of credits of graduation from a Cosmetology or Barbering program of vocational level (secondary or post-secondary) from a vocational high school attached to the Department of Education of Puerto Rico; or who has a Professional License of Beauty Specialist or Barber Stylist.</li> <li>3. Students who have graduated from short courses or Continuing Education courses of less than 360 hours are not eligible for admission to this program.</li> </ol>
Preschool Assistant	N/A	N/A	1. The student must complete the Criminal History Certification (Act 300).
Master in Barbering	N/A	N/A	<ol style="list-style-type: none"> <li>1. Copy of diploma or transcript of credit from a Barbering and Styling program from NUC University - IBC Technical Division or from any other duly accredited post-secondary technical educational institution, or who holds a Barber and Stylist license in Puerto Rico.</li> <li>2. In the case of students graduated from a vocational high school attached to the PR Department of Education, a copy of diploma or transcript of credits from a vocational (high school) Barbering program is required.</li> </ol>

### ***ASSOCIATE DEGREE PROGRAMS***

<b>Program</b>	<b>Minimum High School GPA</b>	<b>Transfer Students - GPA at Prior Postsecondary Institution</b>	<b>Other Requirements</b>
Associate Degree Applied Sciences in Clinical Sonography	GPA 2.00	GPA 2.00	
Associate Degree Applied Sciences in Radiological Technology	GPA 2.00	GPA 2.00	
Associate Degree Applied Sciences in Cardiorespiratory Care	GPA 2.00	GPA 2.00	

<b>Program</b>	<b>Minimum High School GPA</b>	<b>Transfer Students - GPA at Prior Postsecondary Institution</b>	<b>Other Requirements</b>
Associate Degree Pharmacy Technician	GPA 2.00	GPA 2.00	
Associate Degree in Nursing	GPA 2.00	GPA 2.00	
Associate's Degree in Optical Sciences	GPA 2.00	GPA 2.00	
Associate's Degree in Physical Therapist Assistant	GPA 2.00	GPA 2.00	
Associate Degree in Emergency Medical Technician-Paramedic	GPA 2.00	GPA 2.00	<ol style="list-style-type: none"> <li>Students with a GPA that is less than 2.00 points or that does not have a grade point average may be admitted if: <ol style="list-style-type: none"> <li>The GPA was affected by having obtained a "D" grade in Spanish, Math or English, or</li> <li>The student presents a College Board Examination result showing that at least a total of 400 points were obtained, or</li> <li>The student completes an admission test and obtain a minimum of 70%</li> </ol> </li> <li>Certificate of criminal record issued by the Police of PR.</li> <li>Certificate from the Health Department.</li> </ol>
Associate Degree in Gastronomy and Culinary Management	GPA 2.00 - if the student does not meet the required GPA please refer to item (1) one of the other requirements	GPA 2.00	<ol style="list-style-type: none"> <li>Students with a GPA that is less than 2.00 points or that does not have a grade point average may be admitted if: <ol style="list-style-type: none"> <li>The GPA was affected by having obtained a "D" grade in Spanish, Math or English, or</li> <li>The student presents a College Board Examination result showing that at least a total of 400 points were obtained, or</li> <li>The student completes an admission test and obtain a minimum of 70%</li> </ol> </li> <li>Certificate of criminal record issued by the Police of PR.</li> <li>Certificate from the Health Department.</li> </ol>
All Other Associate's Degree Programs	GPA 1.76	GPA 2.00	

## ***BACHELOR DEGREE PROGRAMS***

<b>Program</b>	<b>Minimum High School GPA</b>	<b>Transfer Students - GPA at Prior Postsecondary Institution</b>	<b>Other Requirements</b>
Bachelor's Degree in Science in Nursing	GPA 2.25	GPA 2.25	
Bachelor's Degree in Science in Nursing (RN to BSN)	N/A	GPA 2.25	<ol style="list-style-type: none"> <li>Have an Associate Degree in Nursing from an institution accredited by an accrediting agency recognized by the US Department of Education or by the appropriate governmental or quasi-governmental agency from the country of origin.</li> </ol>

<b>Program</b>	<b>Minimum High School GPA</b>	<b>Transfer Students - GPA at Prior Postsecondary Institution</b>	<b>Other Requirements</b>
			2. Have a permanent RN License in the United States or Puerto Rico and evidence that such license is active. All students must keep their license active during their time of study.
Bachelor's Degree in Diagnostic Imaging, concentration in CT and MRI	GPA 2.00	GPA 2.00	
Bachelor's Degree in Diagnostic Medical Sonography with a Concentration in Cardiovascular Technology	GPA 2.00	GPA 2.00	
All Other Bachelor's Degree Programs	GPA 1.76	GPA 2.00	

### ***POST BACCALAUREATE CERTIFICATES***

<b>Program</b>	<b>Minimum GPA at Prior Postsecondary Institution</b>	<b>Other Requirements</b>
Graduate Certificate in Accounting	GPA 2.50	<ol style="list-style-type: none"> <li>1. Have a bachelor's or master's degree in accounting from an accredited institution recognized by the US Department of Education or by an official agency from the country of origin., or,</li> <li>2. Have a bachelor's or master's degree in any area of concentration and where the official school transcript proves the completion of nine (9) credits in accounting courses.</li> <li>3. These courses should have been approved with a minimum grade of C in undergraduate courses, or a minimum grade of B in graduate courses.</li> </ol>
Graduate Certificate in Management and Educational Leadership	GPA 2.50	<ol style="list-style-type: none"> <li>1. Have a bachelor's degree from an accredited institution recognized by the US Department of Education or by an official agency from the country of origin.</li> <li>2. Meet all general admission and transfer requirements.</li> </ol>
Graduate Certificate in Online Education	GPA 2.50	<ol style="list-style-type: none"> <li>1. Have a bachelor's degree from an accredited institution recognized by the US Department of Education or by an official agency from the country of origin.</li> <li>2. Meet all general admission and transfer requirements.</li> </ol>

### ***MASTER DEGREE PROGRAMS***

<b>Program</b>	<b>Minimum GPA at Prior Postsecondary Institution</b>	<b>Other Requirements</b>
All Master's Degrees in Business Administration	GPA 2.50	<ol style="list-style-type: none"> <li>1. Have a bachelor's degree from an institution accredited by an accrediting agency recognized by the US Department of Education</li> </ol>

<b>Program</b>	<b>Minimum GPA at Prior Postsecondary Institution</b>	<b>Other Requirements</b>
		or by the appropriate governmental or quasi-governmental agency from the country of origin.
Master's Degree in Education with major in Educational Leadership	GPA 3.00	<ol style="list-style-type: none"> <li>1. Have a bachelor's degree from an institution accredited by an accrediting agency recognized by the US Department of Education or by the appropriate governmental or quasi-governmental agency from the country of origin.</li> <li>2. One letter of recommendation from professors or other professionals.</li> <li>3. Interview with the Program Director or Academic Dean.</li> </ol>
Master's Degrees in Education in: Curriculum / Assessment and Effectiveness	GPA 2.50	<ol style="list-style-type: none"> <li>1. Have a bachelor's degree from an institution accredited by an accrediting agency recognized by the US Department of Education or by the appropriate governmental or quasi-governmental agency from the country of origin.</li> </ol>
All Master's Degrees in Science in Nursing	GPA 2.50	<ol style="list-style-type: none"> <li>1. Have a bachelor's degree in Science in Nursing from an institution accredited by an accrediting agency recognized by the US Department of Education or by the appropriate governmental or quasi-governmental agency from the country of origin.</li> <li>2. Have and present evidence of active and permanent License of General Nurse (BSN) in U.S. or P.R. The student must maintain the license active during the time of study.</li> </ol>
Master's Degree in Information Technology	GPA 2.50	<ol style="list-style-type: none"> <li>1. Have a bachelor's degree in Information Technology, Computer Sciences or other technology related bachelor's degree from an institution accredited by an accrediting agency recognized by the US Department of Education or by the appropriate governmental or quasi-governmental agency from the country of origin.</li> <li>2. If the bachelor's degree is non-technology related, student must have completed at least one (1) course with a minimum grade of B in each of the following three areas at the undergraduate level, prior to being admitted in the master's degree: <ul style="list-style-type: none"> <li>• Operating Systems and Architecture</li> <li>• Network Fundamentals</li> <li>• Data Base Design</li> </ul> </li> </ol>
Master's Degree in Industrial Organizational Psychology	GPA 2.50	<ol style="list-style-type: none"> <li>1. Have a bachelor's degree from an institution accredited by an accrediting agency recognized by the US Department of Education or by the appropriate governmental or quasi-governmental agency from the country of origin.</li> <li>2. Students interested in applying for the Puerto Rico Psychologists' licensing examination must enroll in supervised practicum courses that are equivalent to 500 hours in total. According to the Regulations of the Puerto Rico Psychologist Board of Examiners, the number of online courses must not exceed 30% of the total program, and such online courses must be mainly theoretical in nature.</li> </ol>



## DOCTORAL DEGREE PROGRAM

Program	Minimum GPA at Prior Postsecondary Institution	Other Requirements
Doctorate in Business Administration with Specialty in Strategic Management	GPA 3.00	<ol style="list-style-type: none"> <li>1. Have a master's degree in Business Administration from an institution accredited by an accrediting agency recognized by the US Department of Education or by the appropriate governmental or quasi-governmental agency from the country of origin.</li> <li>2. If the master's degree is non-business administration related, student must complete the courses recommended by the Doctoral Admission Committee, prior to being admitted in the doctoral degree program.</li> <li>3. Submit two (2) letters of recommendation (professionals)</li> <li>4. Submit an updated curriculum vitae or professional resume.</li> <li>5. Complete an interview process.</li> <li>6. Submit an essay describing what doctoral studies are and what goal is pursued with the completion of the degree.</li> <li>7. No more than six (6) credits will be granted in the case of transfers.</li> </ol>

*The graduates of Allied Health programs are reminded that they are required by law to complete an examination offered by the Examining Boards that oversee these professions in order to obtain their licenses. A certificate of good conduct is required in some Allied Health programs. Minimum age requirements may also apply to begin practice in some programs.*

## Externship/Practicum Requirements

Once officially enrolled, documents listed below must be completed at least two weeks before students are scheduled to start their practical experience (e.g., Externship, Internship or other Clinical/Practical Experience). Failure to do so could result in suspension of the practical experience. Students should also review program-specific publications for any additional requirements. Also, practical experience providers/centers may apply additional requirements.

1. Valid Health Certificate issued within the previous six months prior to the practice.
2. P-VAC 3 Certificate of Immunization.
3. Hepatitis B Vaccine (Required in those programs where the students will be in direct contact with patients) or proof from the clinical laboratory that certifies the administration.
4. Chicken pox vaccine or proof of immunity from the laboratory (applicable only for hospitals and direct care centers)
5. Negative Penal Record Certificate (If requested by the practice center).
6. Some practice centers have established the policy of requiring drug tests.
7. CPR (Cardiopulmonary Resuscitation Course) according to the practice center.
8. Present a Medical Insurance Card
9. Flu Vaccine (according to the practice center)
10. HIPAA-OMNIBUS, OSHA orientation (and other related requirements if imposed by the practice center)
11. Abuse and Neglect Certificate (applicable to certain programs)
12. Evidence of Influenza vaccination for the programs EMGA and EMER.
13. Negative 266 Law (not be a convicted sexual offender).
14. Law 300- Law of Sexual Offenders. The student must present a Criminal History Certification related to the Law of Sexual Offenders; this will only to those cases in which the practice centers require it.
15. Nose and throat cultures (when applicable).
16. Other requirements may be needed according to the practice center. These documents presented by the students will be shared with the practice center designated officer.



## Notification of Admission

The Admissions Office will notify all applicants regarding their admissions to the university with a letter.

## Other Condition for Admission

A student who does not have an application accompanied by all the required documents will have a period of 30 days after classes begin to submit the missing documents. The Admissions Officer will notify the student of the documentation that is needed to complete their file and the deadline for its delivery. The student is considered to be conditionally admitted and financial aid will not be disbursed to the student until all admission requirements have been satisfied.

If the student does not submit the required documentation in the specified period, the enrollment will be canceled.

## Transfer Credit Policy

### ***I. Policy for the Transfer of Course Credits from Institutions of Higher Education and Non-University Postsecondary Educational Institutions***

1. It will be considered for transfer of credits those courses approved by the student proceeding from a Higher Education Institution and from Non-University Post-secondary Level Institutions, duly authorized and accredited.
2. Course content must be equivalent to the course content in the curricular sequence for the program to which the student is interested in being admitted to NUC University.
3. Will be considered for transfer of credits, subject to evaluation of content, courses that have been validated from other institutions and that are identified in the submitted official transcript. The original transcript of transfer courses from the other institution will not be required to be submitted.
4. In the case of NUC University- Florida Technical College students, will be considered for transfer credits the professional certifications that the student has approved, whose content is equivalent to the content of the courses that are in the academic offerings for the program in which the student has applied for admission.
5. In the case of students who receive training services for veterans or any other entity that requires it, they must present all credit transcripts from the institutions where they have studied.
6. Those students interested in transferring additional credits from courses approved from other institutions must present the credit transcript of that institution.
7. In the case of military students, some training courses provided by the armed forces, the transfer will be made taking into consideration the Official Join Services Transcript (JST). The Joint Services Transcript (JST) is a synchronized transcript presenting data for the United States Army, Marine Corps, Navy, and Coast Guard. Each JST is "owned" by the service member's or veteran's specific service, so you will see each service's seal with the American Council on Education (ACE) seal at the top.
8. The student may request a preliminary evaluation with a copy of the transcript of credits. Each approved course and its equivalence with the corresponding courses offered by NUC University will be evaluated. The final transfer of credits will be made once the official transcript has been received from the institution of origin.
9. Students are responsible for ensuring that their documents, specifically the official transcript of all the courses to be transferred, have been received at the Registrar's Office on or before the next enrollment period.
10. If the student's academic record arrives at the Registrar's Office without the official transcript of credits, a Hold will be placed in the Student Administration System, which

will restrict the student's enrollment. This Hold will be removed when the official TC is received or if the student enrolls in the courses for which the student had requested transfer in the following term, according to availability.

11. Courses to be transferred shall be no more than 15 years for General Education courses, 10 years for core and major courses in undergraduate programs, six (6) years for diploma programs, and six (6) years for graduate programs. These will be considered on their merits, under consideration of course content, significant changes, and in accordance with the standards of the accrediting agencies and the requirements and changes of the examination boards.
12. General Education courses from technical degrees or diploma programs will not be considered for transfer credit for undergraduate level programs.
13. Courses to be transferred for undergraduate and diplomas programs must have been approved with a minimum grade of C, except for those academic programs that establish different requirements, in which case, they must meet the minimum grade required for these.
14. Courses to be transferred for graduate programs must have been approved with a minimum grade of B.
15. Some courses that are not part of NUC University academic offerings may be considered as elective courses, as long as they are authorized by the VP for Academic Affairs.
16. When a student is readmitted, courses previously attempted at NUC University may be considered for transfer credit, following the parameters established in the Transfer Credit Policy for Approved Courses at NUC University.
17. The University Environment Seminar and the Transition to University and Professional Training Seminar courses will not be considered for transfer.
18. Remedial and continuing education courses, technical certificates, and challenge or competency exams taken in other university institutions will not be transferable.
19. For undergraduate and post-secondary non-university level programs the maximum amount of credits to be transferred will be 50% of the total credits that the student must take to fulfill the graduation requirements of an academic program at NUC University, either in transfer credits or in combination with competency exams.
20. For graduate programs, the maximum amount of credits to be transferred will be six (6) credits.
21. In the Nursing Program, technical courses will only be transferred from those institutions in which there is an official collaboration agreement.
22. In the Bachelor Degree in Science in Nursing (RN to BSN) program, the transfer of credits will be conducted as established in the general catalog. No additional courses will be transferred without exception.
23. The transfer of credits for a course may be considered, even if the student has not approved the prerequisite of the course, if the student takes the course in the immediate term that is available in the academic offering.
24. If the transcript proceed from a foreign university, the student will be responsible for having a certified translator translate the document to English in order to be evaluated by a certified foreign credential examiner and member of the National Association of Credential Evaluation Services (NACES: <https://www.naces.org/members>). World Education Services, etc.
25. In the case of military students, some training courses provided by the U.S. armed forces may be equivalent to university courses, provided the content and number of credits are equivalent to those of NUC University. For the determination of equivalency of these

courses, NUC University will consider the American Council on Education publication titled Guide to Evaluation of Educational Experience in the Armed Services.

26. Academic credits will be awarded to students who have passed one or more of the Advanced Placement Exams offered by the College Entrance Examination Board (CEEB) only in Spanish, English and Math areas, provided that they have earned three (3) or more points in a five-point (5) scale.

<b>SCORE</b>	<b>COURSES</b>
3	ENGL 1010, MATH 1010, SPAN 1010
4 or 5	ENGL 1010-1020, MATH 1010, SPAN 1010-1020

27. Credit will be granted for specific subject tests offered by the College Level Examination Program (CLEP) and Defense Activity for Non-Traditional Education Support (DANTES), Worldwide Education Support to the Department of Defense. The transfer of credits is subject to the verification of the equivalence of the courses with the corresponding courses offered by NUC University; this process will be carried out at the Academic Dean's Office of the Campus.
28. Academic credit for courses duly accredited by the American Council on Education" (ACE), Council for Adult and Experiential Learning (CAEL) or similar agencies may be considered for transfer, as long as the courses are part of an agency where NUC University has an agreement of understanding; process to be conducted in the Academic Dean's Office of the Campus. (Students participating in the Competency Based Program [CBE] will have other considerations in the credit transfer process).
29. Transfer courses will be listed without a grade on the student's credits transcript. These courses will affect the average of attempted credits vs. approved.
30. Students may submit a written appeal to the Academic Dean/Director Office if they disagree with the decision made. After having received the notice, students will have a period of ten (10) business days for filing the appeal.
31. Any exceptions to this policy should be addressed to the Vice President of Academic Affairs.

### ***Application Process***

1. The student completes the NUC University application for admission to the Admissions Office and the *Transfer Credits Request Form for Courses from Institutions of Higher Education and Non-University Postsecondary Educational Institutions*.
2. The student must request an official transcript of credits and a copy of the catalog of the institution of origin that includes the description of the course and the number of credits, if the same is not available in the institution's web page. NUC University may request the student a copy of the official transcript of the course and any other necessary documentation to corroborate the content, number of credits and duration of the course, when the description of the catalog of the other institution is not specific.
3. The transfer application must be requested during the admission process to the institution or within forty-five (45) calendar days from the start date of the first academic term; no new applications will be accepted after the deadline.
4. If any students presents inconvenience obtaining the official transcript of credits, they will receive an extension of 15 calendar days to the transfer period. If the official transcription is not received at the Registrar's Office within the stipulated time, the transfer of credit request is void.
5. The Registrar's Office will only accept one Request for Transfer of Credits and one reconsideration or appeal to that request.

## **II. *Transfer Credit Policy for Approved Course at NUC University***

1. All courses completed that are contemplated in the curriculum outline of a graduate, undergraduate, or diploma program from NUC University will be considered for credit transfer. The content of the courses must be equivalent to the content of the courses in the current curriculum.
2. The transfer of credits for a student who has graduated from a NUC University program who applies for admission to another graduate, undergraduate, or diploma program will follow these parameters:
  - a. Graduate – up to 70% of the total credits required to complete a master’s degree program
  - b. Undergraduate – up to 85% of the total credits required to complete the program
  - c. Diploma – up to 16 credits required to complete the program
3. The transfer of credits of course completed by active or readmission students will be carried out per course, according to the requirements of the new program.
4. For graduate programs, all transfer credits should have been completed with a minimum course grade of B. For undergraduate and diploma programs, all transfer credits should have been completed with a minimum course grade of C.
5. Credits completed in the institution that were previously transferred from another institution or competency-based exams can be transferred.
6. Courses to be transferred shall be no more than 15 years for General Education courses, 10 years for core and major courses in undergraduate programs, six (6) years for diploma programs, and six (6) years for graduate programs. These will be considered on their merits, under consideration of course content, significant changes, and in accordance with the standards of the accrediting agencies and the requirements and changes of the examination boards.
7. As an exception, students who meet the following criteria will be able to continue their studies following the previous version of the program:
  - a. students who withdrew during their last academic term and return within three (3) years of the withdrawal date to complete the program (diploma)
  - b. students who were missing 12 credits or less and return within ten (10) years to complete an undergraduate program or within six (6) years to complete a graduate program
  - c. students who meet the graduation criteria of the program
  - d. Following the previous version is subject to the availability of the courses.
8. Externship courses and reviews for licensure exams for any program in the Technical Division and the Basic Culinary Techniques course offered in Culinary Arts programs will not be considered for transfer credits.
9. The University Environment Seminar course (SEMI 1001) is not transferable, except for those that have been enrolled and approved at NUC University as of November 2021 or later. Also, research courses for graduate programs will not be considered for credit transfer.
10. For the purposes of academic progress, the credits transferred will be considered for qualitative and quantitative components, except credits transferred from external institutions and competency-based exams.
11. If a student does not wish to continue their application, they must complete the *Credit Transfer Relinquishment* document during the period for making changes established in the calendar.
12. Special situations will be referred to the Office of Vice Presidency of Academic Affairs for the corresponding evaluation.
13. The student will receive notification by institutional e-mail of the determination of their credit transfer request.

14. If students disagree with the courses transferred, they can submit a written appeal to the academic office of their academic unit. Students will have ten (10) business days upon receipt of the notification to submit an appeal. Once this period has passed the decision is final, binding, and unappealable.

### ***Application Process***

1. Students complete the *Credit Transfer Request Form* in the Admissions Office, the Registrar's Office, or the Academic Counseling Office, as applicable in the academic unit, no later than the first two (2) weeks from the start of classes, as established in the academic calendar. New applications will not be accepted after this date.

### ***III. Institutions with which NUC has established an articulation agreement***

- ICPR Junior College
- Sophia

### ***General Statement***

*The determination of transfer of credits taken at NUC University is at the discretion of the receiving institution.*

## **Non-Degree Seeking Policy (NDS)**

NUC University currently receives students (Audit Students) who seek to take courses without any interest whatsoever in obtaining a degree. The institution classifies these students as Non Degree Seeking (NDS). NDS students are those students who are not interested in obtaining an academic degree at NUC but are interested in taking courses for their own professional or personal development.

NDS students can apply for any course that is part of the academic offerings of NUC, subject to academic evaluation (if apply), availability, space limitation, and depending upon the regulations and/or the accreditation standards of the academic programs, if any.

Those students who already have a Bachelor's degree or a Master's degree awarded and are interested in studying another concentration under the same program can take these additional courses. However, since these courses by themselves are not considered an eligible program, students will be classified under the category of "non-degree seeking" student. This means that they will be enrolled on a course-by-course basis and will be not classified as a regular student pursuing a degree. For this reason students will not be granted another diploma nor will they be eligible for Title IV financial aid for these courses.

NDS students will receive credits and a final grade. This means that they will have to comply with all the assignments and required exams to approve the courses.

### ***Requirements to be admitted as a special student***

1. Complete and submit the application for admission.
2. If under the age of 21, must submit the original document or a copy of the updated immunization certificate.
3. Pay admissions fee (nonrefundable)
4. If the student is enrolled in another collegiate institution, they must submit evidence of authorization from the institution to take courses at NUC.
5. Submit a transcript certifying the degree awarded.
6. Be interviewed by the NUC Education Department Director or Coordinator (This only applies to the Master's degree in Education courses).
7. The student must follow the norms and procedures established by the institution.
8. The costs per credit and fees are published in the [Tuition and Fees Section](#).

This policy will apply to on ground, online and foreign students. For this policy, students must comply with all the requirements of the Commonwealth of Puerto Rico, the United States and their place of origin.

## **Re-Admissions**

Every student who has withdrawn from the Institution and is interested in being re-admitted must complete a re-admission request form at the Registrar's or Admission's office. This process applies to those students who have not been enrolled at the Institution for one or more terms.

Any student who discontinues their studies in the institution and is later re-admitted in the same academic program, as long as the program has not undergone any curricular revision, will re-enter under the academic progress status that they had at the moment of discontinuing studies. If the student is re-admitted in the same program that has undergone a curricular revision or change to a different academic program, only the credits approved and grades earned under the previous program that are required in the new program will be counted in academic progress. Notwithstanding the above, the students therefore re-admitted, should be bound by the academic program and other requirements in the Catalog and other established guidelines effective as of the date of this re-admission. Likewise, any Armed Forces member enrolled, including reserve components and National Guard members will be readmitted if such members are temporarily unavailable or must suspend enrollment by reason of serving in the Armed Forces.

# Financial Aid

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NUC University offers financial aid to students who are eligible for the programs currently administered by the Institution. Financial aid may not be available for all programs. Please contact the Financial Aid Office for more information. The aid offered to each eligible student is subject to the availability of funds for the specific award year.

## Financial Aid Programs

The Financial Aid programs currently available at the Institution are the following:

- **Need Based Programs**

- ***Federal***

- Federal Pell Grant
    - Federal Supplemental Educational Opportunity Grant (FSEOG)
    - Federal Work and Study Program
    - Subsidized Direct Federal Loan

- ***State***

- Programa de Beca para Estudiantes con Talento Académico (BETA)

- ***Institutional***

Important Note: Institutional grants are subject to change. Please contact the financial aid office for an updated list and availability.

- **NUC & NUC-DT IBC**

- Scholarship Creciendo Contigo
      - Scholarship High School Seniors
      - Scholarship Healthcare Heroes
      - Scholarship Por Ti, Contigo

- **No Need Based Programs**

- ***Federal***

- Unsubsidized Direct Federal Loan
    - Federal Direct Loans for Parents (Plus)
    - Federal Direct Loans for Graduate Students (Plus)

To apply for financial aid, students must complete the standard forms, provided by the Financial Aid Office, for the programs currently offered. In the case of federal programs under Title IV, the Free Application for Federal Student Aid (FAFSA) can be obtained by completing an application online at [www.fafsa.ed.gov](http://www.fafsa.ed.gov). Specific information concerning the eligibility requirements for each program is also available at the Financial Aid Office. To be eligible for any type of financial aid, all students must comply with the Institution's Standards of Satisfactory Academic Progress.

## Financial Aid Offered by the Institution

The following is a description of the different types of financial aid offered by the Institution:

### Federal Pell Grant Program

This grant does not have to be repaid by the student. Funds for this program are available for eligible undergraduate students. The eligibility for this program is determined by a standard formula provided by the US Department of Education. Students must apply annually for this aid by completing the Free Application for Federal Student Aid (FAFSA).



### **Federal Direct Loan Program**

Enables eligible students and parents to borrow directly from the US Department of Education. The program provides low interest loans that must be repaid with interest. Students must apply annually for this aid by completing the Free Application for Federal Student Aid (FAFSA) and by completing an Entrance Counseling session and Master Promissory Note.

### **Federal Work Study (FWS) Program**

The Federal Work Study Program provides jobs for eligible students with financial aid need as defined by the US Department of Education. Federal Work Study gives students the opportunity to earn money to help pay educational expenses. The amount of the awards is based on need and availability of funds.

### **Federal Supplemental Educational Opportunity Grant (FSEOG) Program**

The Federal Supplemental Educational Opportunity Grant is an award to help those eligible undergraduate students having the greatest financial need (with priority given to Pell Grant recipients), and it doesn't have to be repaid. The amount of the award is based on need and availability of funds.

### **JIP Programs/State Grants Program**

These funds are assigned to the institution by the Board of Postsecondary Institutions for eligible students with financial need who are enrolled in a master's, bachelor's or associate's degree program.

## **Institutional Grants**

This policy applies to all students who enroll at any NUC University location in Puerto Rico and meet the eligibility criteria of the grant for which they are applying. Students may participate in any of these grants, regardless of whether they receive other (non-institutional) financial aid, as long as they comply with the requirements established in this policy.

Students applying for any financial aid administered by NUC University are required to report any additional external financial aid they expect to receive to fund their studies (Veterans, Vocational Rehabilitation, AmeriCorps, etc.).

The application is available and must be submitted to the Financial Aid Office. Applications will be evaluated on a first-come, first-served basis, so NUC University encourages you to apply early, as funds available for these grants are limited. NUC University will disburse the amount of the grant awarded at the end of the academic term for which the funds were allocated.

These grants are not available to students enrolled in continuing education courses. Students may only participate in one institutional grant.

#### ***Institutional Grant: High School Senior***

The High School Senior grant awards \$200.00 to students enrolled in programs leading to a diploma and \$300.00 to students enrolled in programs leading to an associate or bachelor's degree. The grant is applicable to the first term of study. An additional \$200.00 will be awarded to students who demonstrates evidence of having completed high school with a cumulative GPA of 3.2 or higher.

To be eligible, students must meet the requirements described below:

1. Have completed high school in the year they were admitted to NUC University,
2. Complete the Institutional Grant Application before the end of their first academic term,
3. Be a resident of Puerto Rico and/or enrolled at NUC University South Florida Campus,
4. Maintain satisfactory academic progress,
5. Complete all courses enrolled in the first term of studies.



***Institutional Grant: Healthcare Heroes***

The Healthcare Heroes grant awards \$200.00 to students enrolled in programs leading to a diploma and \$300.00 to students enrolled in programs leading to an associate, bachelor's or master's degree. The grant is applicable to the first term of study. An additional \$200.00 will be awarded to students who are ineligible for the maximum Federal Pell Grant amount due to reaching the maximum lifetime limit.

To be eligible, students must meet the requirements described below:

1. Enroll in one of the health-related programs,
2. Complete the Institutional Grant Application before the end of their first academic term,
3. Be a resident of Puerto Rico and/or enrolled at NUC University South Florida Campus,
4. Maintain satisfactory academic progress,
5. Complete all enrolled courses of the first term of studies.

***Institutional Grant: "Creciendo Contigo"***

The "Creciendo Contigo" grant awards \$200.00 to students enrolled in programs leading to a diploma and \$300.00 to students enrolled in programs leading to an associate, bachelor's or master's degree. The grant is applicable to the first term of study. An additional \$200.00 will be awarded to students who are ineligible for the maximum Federal Pell Grant amount due to reaching the maximum lifetime limit.

To be eligible, students must meet the requirements described below:

1. Enroll in a new program after previously completing a program at one of NUC University's locations, or re-enroll in a program previously initiated that was not completed in any of NUC locations,
2. Complete the Institutional Grant Application before the end of their first academic term,
3. Be a resident of Puerto Rico and/or enrolled at NUC University South Florida Campus,
4. Maintain satisfactory academic progress,
5. Complete all courses enrolled in the first term of studies.

***Institutional Grant: "Por ti, Contigo"***

The "Por ti, Contigo" grant awards \$200.00 to new students enrolled in programs leading to a diploma, and \$300.00 to new students enrolled in programs leading to an associate, bachelor's or master's degree. The grant is applicable to the first term of study. An additional \$200.00 will be awarded to students who are ineligible for the maximum Federal Pell Grant amount due to reaching the maximum lifetime limit.

To be eligible, students must meet the requirements described below:

1. Be a new student,
2. Complete the Institutional Grant Application, prior to the end of their first academic term,
3. Be a resident of Puerto Rico and/or enrolled at NUC University South Florida Campus,
4. Maintain satisfactory academic progress,
5. Complete all courses enrolled in the first term of studies.

***Institutional Grant: Pathway to Success Grant and Tuition Discount***

This grant awards \$750 and a discount of 15% for each term to students who re-enroll in a Bachelor's degree program previously initiated that was not completed. The grant applies to the first term of study. To be eligible, students must meet the requirements described below:

1. Complete the Institutional Grant application before re-starting the program,
2. Re-enroll and attend the same bachelor's program previously initiated and be able to complete the remaining of the program within 150% of the initial date of enrollment,
3. Maintain satisfactory academic progress,
4. Graduate from the program within 150% of the initial date of enrollment, as certified by the Registrar.

***Institutional Grant: Pathway to Success Grant and Tuition Discount (Teach Out)***

This grant awards \$750 and a discount of 15% for each term to students who attend an academic program at a location with an active Teach-Out plan (select NUC-DT IBC locations). The grant applies to the first term of study. To be eligible, students must meet the requirements described below:

1. Complete the Institutional Grant application before completing the program,
2. Complete a program in an eligible location,
3. Maintain satisfactory academic progress,

***Institutional Scholarship: Get Back on Track***

The "Get Back on Track" scholarship is designed for students who have already started repaying student loans obtained at NUC University and wish to return to our institution to complete or continue an academic program. The amounts awarded are:

- PR Residents
  - Undergraduate Programs - \$150.00 per Term
- Graduate Programs - \$500.00 per Term
  - US Residents
- Undergraduate Programs - \$250.00 per Term
  - Graduate Programs - \$600.00 per Term
- Additionally, students may qualify for forgiveness of past-due institutional balances that remain unpaid for periods ending at least 12 months before re-enrollment, up to a maximum of \$5,000.

To be eligible, students must meet the requirements described below:

1. Have been previously enrolled at NUC;
2. Have student loan debt acquired through prior enrollment at NUC University, as validated on the NSLDS website;
3. Be in repayment status on any federal student loan taken out between October 1, 2023, and September 30, 2024, as evidenced on the NSLDS website;
4. Be eligible for re-entry to NUC based on Satisfactory Academic Progress (SAP) guidelines;
5. Complete a required counseling session with the Prevention Default Office;
6. Complete and submit the Institutional Grant Application before beginning the program.

## Title IV Refund Policy

NUC University (NUC), in accordance with federal laws and regulations, follows the Federal Policy for Return of Title IV Funds to determine the amount of Title IV aid a student has earned if they decide to withdraw from the institution or otherwise ceases attendance prior to the end of a payment period. A student is not considered withdrawn if any of the following applies:

- (1) the student completes the requirements for graduation before completing the payment period (applicable only to graduation from the student's program of enrollment as of that payment period);
- (2) If the student is enrolled in a program comprised of modules<sup>i</sup> and any of the following applies:
  - a. The institution obtains written confirmation that the student will attend a later module in the same payment period or period of enrollment that begins no later than 45 calendar days after the end of the module the student ceased attending. (If the student is enrolled in any full-term courses during the payment period the 45-day timeline does not apply, but the student must confirm in writing that they will be returning to a module that begins later in the payment period);
  - b. The student successfully completes (earns at least one passing grade per module in) one or more modules that, together, comprise at least 49% of the days in the payment period (*excluding scheduled breaks of five (5) consecutive days or more, and all days between modules, if applicable*); or
  - c. The student successfully completes (earns a passing grade in) coursework equal to or greater than the coursework required for half-time enrollment.

The law specifies how NUC must determine the amount of Title IV program assistance a student earns if they decide to withdraw from or otherwise ceases attendance in the institution. The Title IV programs in which NUC currently participates that are covered by this law are: Federal Pell Grants, Iraq & Afghanistan Service Grants, Direct Loans, Direct PLUS Loans, and Federal Supplemental Educational Opportunity Grants (FSEOG).

Although Title IV aid may be credited to the student's account at the beginning of each payment period, the student earns the funds as they complete the payment period. If a student withdraws before completing the payment period, the amount of Title IV program assistance the student earned up to that point is determined on a pro rata basis. If the student received (this includes amounts received on your behalf by the institution, or your parent) less assistance than the amount earned, they may be able to receive those additional funds as a post-withdrawal disbursement. If, however, the student received more assistance than they earned, the institution and/or the student will have to repay the excess.

For example, if a student completes 20% of the payment period (term), they will have earned 20% of the Title IV assistance they were originally scheduled to receive. Once a student completes more than 60% of the payment period, they will have earned all the assistance that they were scheduled to receive for that payment period. The percentage completed in the payment period is calculated by dividing the calendar days the student completed in the payment period (term) (as of student's Last Day of Attendance) by the total calendar days in the payment period (term) that the student was scheduled to attend (excluding, if applicable, any scheduled break of 5 consecutive days or more). For students withdrawing from a program offered in modules, the number of days the student is scheduled to attend in the payment period (term) is determined as follows:

- If eligible for Pell Grant, Iraq-Afghanistan Service Grant during the payment period (term) - days in modules in which the student actually began attendance, or
- If eligible for Direct Loan or FSEOG funds during the payment period (term) (regardless of eligibility for other Title IV programs) - days in modules the student was enrolled in on the first day of the period or enrolled in at any time during the period.

The date of determination refers to the date NUC determined that a student ceased attendance. NUC routinely monitors attendance records and determines if a student ceased attending within 14 days of their last day of

attendance.

If the student did not receive all the funds earned, they may be due a post-withdrawal disbursement.

If the post-withdrawal disbursement includes loan funds, the institution will contact the student to request written authorization before disbursing the funds. At that point, the student will be provided with the option to accept or decline some or all of the loan funds. The institution will provide written notification to the student (or parent) of their eligibility for a post-withdrawal disbursement of loan funds within 30 days of the date of determination that the student withdrew. The student will be allowed at least 14 days to provide written confirmation of their decision. Before accepting loan funds, students should consider that they must pay back the loan funds with interest.

The institution will automatically credit the student's account with any post-withdrawal disbursement of grant funds to pay for contracted tuition, fees, and room and board charges. The institution will also automatically credit the student's account with the post-withdrawal disbursement of grant funds to pay for other institutional charges if, prior to withdrawal, the student provided authorization. The institution will disburse the post-withdrawal disbursement of grant funds in excess of outstanding current charges and other institutional charges (if authorized by the student) to the student within 45 days of the date of determination that the student withdrew.

All post-withdrawal disbursements of loan and grant funds must be disbursed within 180 days of the date of determination that the student withdrew.

It is important to understand that due to other eligibility requirements, the institution is prohibited from disbursing some Title IV funds that a student was scheduled to receive prior to withdrawal. For example, the institution cannot make a post-withdrawal disbursement of loan funds to a first-time, first-year undergraduate student who withdrew prior to completing the first 30 days of the payment period. We encourage students to contact the Student Accounts Office with any questions.

If the student received (this includes amounts received on your behalf by the institution or your parent) excess Title IV program funds that must be returned, the institution must return a portion of the excess funds equal to the lesser of student's institutional charges multiplied by the unearned percentage of student's funds, or the entire amount of excess funds. The institution must return any portion of unearned funds for which it is responsible as soon as possible but no later than 45 days after the date of determination that the student withdrew. The institution will return Title IV funds for which it is responsible, in the following order:

1. Unsubsidized Federal Direct Stafford Loan
2. Subsidized Federal Direct Stafford Loan
3. Federal Direct PLUS Loan
4. Federal Pell Grants
5. Iraq & Afghanistan Service Grants
6. FSEOG

If the institution is not required to return all of the excess funds, the student must return the remaining amount. The law provides that students are only required to return 50 percent of the grant assistance they received or were scheduled to receive. The student portion of grants will not be returned if the grant overpayment is \$50 or less. Any amount that students have to return is called an overpayment. Students are required to make arrangements with the institution or the U.S. Department of Education to return the unearned grant funds. If a grant overpayment results from the calculation, the institution will notify the student within 30 days of the date of determination that the student withdrew or otherwise ceased attendance to coordinate arrangements to return the unearned grant funds. Students will have 45 days to make repayment arrangements with the institution from the date of the institution's notice of overpayment. Failure to make satisfactory repayment arrangements for the student portion of unearned grant funds may result in the student losing eligibility for Title IV funds.

Any loans the student, or their parent, received in excess of loan funds earned that are the student's or parent's responsibility to return per the calculation must be repaid in accordance with the terms of the promissory note. That is, the borrower makes scheduled payments to the holder of the loan (the Department of Education) over a period of time. The loan amounts received must be repaid in full with applicable interest even if student did not complete the program, is unable to obtain employment after completing the program, or is dissatisfied. To obtain detailed information about the federal loan types and amounts received for each academic year and the servicer contact information for each loan, the borrower may access their account at [studentaid.gov](http://studentaid.gov). The borrower may also contact the Financial Aid Office for assistance in obtaining this information.

The requirements for Title IV program funds when a student withdraws are separate from the institutional refund policy. If a student ceases attending, the Title IV funds that previously paid or were anticipated to pay the student's balance due to NUC may be reduced resulting in the student owing a balance to NUC. NUC will seek payment from the student for any balance due on the student's account due to the return of funds to the U.S. Department of Education. The Institutional Refund Policy is published in the institutional catalog. Students can also request a copy of this policy at the Student Accounts Office.

This policy applies to all students enrolled in a Title IV eligible program that are also eligible for Title IV aid.

**MODIFICATIONS:** This policy may be modified by new regulations or guidance issued by the U.S. Department of Education, or as otherwise deemed appropriate. In that case, NUC will update the relevant publications. We encourage the student to consult the newsletters, catalogs, offices, or other means of the University concerning new policies to be issued, if applicable.

*<sup>i</sup>A program is considered to be offered in modules if a course or courses in the program do not span the entire length of the payment period. Please contact the Student Accounts Administration office at: [stufinancialsupport@nuc.edu](mailto:stufinancialsupport@nuc.edu) for assistance in determining whether your program is offered in modules or for any other questions related to this policy.*

## Definition of Academic Year of Financial Aid

Programs are offered in standard terms. A full financial aid academic year consists of two semesters. For financial aid purposes, the academic year is defined as one of 24 credits and 32 weeks.

# Student Accounts

The Student Accounts Office is responsible for the assessment and collection of student tuition and fees. This office manages student account transactions on a student's account.

## Tuition, Fees and Other Charges

**Effective for Terms starting on or after 03/01/2025 - Revised 01/23/2025**

The Tuition, Fees, and Other Charges listed below are applicable to all students enrolled at NUC University (NUC), and NUC University – IBC Technical Division, with the exception of students enrolled in continuing education courses. The institution reserves the right to review costs as needed. These changes are duly notified to student prior to its implementation. Students are encouraged to be attentive for announcements regarding Tuition, Fees, and Other Charges, which are published at the following links: <https://recintos.nuc.edu/>, <https://online.nuc.edu/en/>, <https://tecnicos.nuc.edu/>.

## Tuition and Fees

The Tuition and Fees listed below are costs related to the offering of the courses and are applicable to each academic term for which the student is enrolled. Refer to the [Institutional Refund Policy](#) for details regarding how NUC will handle charges when a student cancels their enrollment, adds or deletes courses during the add/drop period, or withdraws before completing a payment period.

## Tuition

### **PUERTO RICO (PR) RESIDENTS**

<b>Diploma, Undegraduate, Post-Bachelor Certificates and Master Degree Programs</b>	<b>Programs offered in Spanish</b>	<b>Programs offered in English/Bilingual</b>
<b>Credits per Term</b>	<b>Cost per Term</b>	<b>Cost per Term</b>
12 or more	3,800.00	4,800.00
11	3,480.00	4,400.00
10	3,130.00	3,950.00
9	2,802.00	3,540.00
8	2,480.00	3,130.00
7	2,140.00	2,700.00
6	1,820.00	2,300.00
5	1,510.00	1,910.00
4	1,150.00	1,460.00
3	840.00	1,060.00
2	530.00	670.00
1	180.00	230.00

<b>Program or Modality</b>	<b>Cost per Credit</b>
Doctorate Degree Program	350.00
Audit or non-degree seeking students	195.00

**NON-RESIDENTS OF PUERTO RICO (PR)**

<b>Undegraduate (Excludes Nursing Destination School), Post-Bachelor Certificates and Master Degree Programs</b>	<b>Programs offered in Spanish</b>	<b>Programs offered in English/Bilingual</b>
<b>Credits per Term</b>	<b>Cost per Term</b>	<b>Cost per Term</b>
12 or more	4,800.00	5,520.00
11	4,400.00	5,060.00
10	3,950.00	4,540.00
9	3,540.00	4,080.00
8	3,130.00	3,600.00
7	2,700.00	3,110.00
6	2,300.00	2,650.00
5	1,910.00	2,200.00
4	1,460.00	1,680.00
3	1,060.00	1,220.00
2	670.00	770.00
1	230.00	260.00

<b>Program or Modality</b>	<b>Cost per Credit</b>
Associate Degree in Nursing - Nursing Destination School (Continuing Students)	399.00
Associate Degree in Nursing - Nursing Destination School (New Students 03/01/2025)	280.00
Doctorate Degree Program	450.00
Audit or non-degree seeking students	195.00

**Fees**

<b>Description</b>	<b>Amount</b>
<b>Technology Resources and Administrative Services<sup>1</sup> (per term)</b>	
Associate Degree in Nursing - Nursing Destination School	370.00
Other programs	400.00
<b>Electronic Device<sup>2</sup></b>	
All programs	390.00

**Other Charges**

The charges listed below are discretionary and are handled at the student's request.

<b>Description</b>	<b>Amount</b>
Academic Evaluation	2.00
Certification of Contact Hours – Continuing Education	10.00
Certifications	15.00
Change of Course(s)	30.00
Collection Agency Fees (up to an additional 30% per balance referred to an agency)	0.30
Copy of Official Enrollment	2.00
Diploma Duplicate	35.00

<sup>1</sup> Does not apply to audit and non-degree seeking students.

<sup>2</sup> The student may opt to exclude the electronic device fee. The electronic device fee applies only to the term in which the student receives the equipment and is non-refundable unless the student returns the equipment unused (sealed box), or is certified defective by institution authorised personnel.



Description	Amount
Duplicate of Student ID	5.00
Evaluation of Foreign Academic Credentials	100.00
Graduation Cap & Gown	Varies
Official Credits Transcript	15.00
Parking Stamp (taxes included - Cost: 4.43 + IVU (11.5%): 0.57 = 5.00) <sup>3</sup>	5.00
Proficiency Examination (per credit)	100.00
Program/Concentration Change	30.00
Removal of Incomplete (per course)	50.00
Returned Check "NSF"	15.00
Printing, Photocopying and Scanning Costs (per page/per side)	
Letter Size - Black & White	0.10
Letter Size - Color	0.25
Legal Size - Black & White	0.15
Legal Size - Color	0.30
Scanning/E-mailing	0.50
Printing Token	3.00
Top up for printing and/or photocopying (per term)	5.00

## Description of Tuition and Fees

**Tuition** - Supports costs associated with course development and instruction. It include costs related to providing the student with high quality laboratories, including costs associated with, but not limited to the cost of furniture, equipment, software, and special materials used in the laboratory. It also supports the costs associated with creating and maintaining an environment that offers the student the opportunity to learn and practice in a workplace setting. The amount charged is based on the total credits registered for the corresponding period.

**Electronic Device** - Provides the student with the opportunity to acquire the equipment needed to complete their distance learning courses at a price below the competitive market rate. The equipment is available upon the student's request and subject to availability.

Students may choose not to pay this fee. If the student chooses not to pay this fee, the student will be responsible for the purchase of the equipment.

**Technology Resources and Administrative Services** - Supports the availability of educational and administrative technology services including, but not limited to, the following: multimedia, access to digital resource data network, library access system enhancements, updating of e-learning systems, accident insurance, degree granting process, technology safety systems, data protection systems, and technologies to support student services.

## Cost of Attendance Information

The cost of attendance (COA) represents the estimated amount it will cost the student to go to school for an academic year. The Financial Aid Office uses the COA to determine the amount of financial aid for which the student is eligible. The components of the COA are reviewed annually by reference to current tuition and fee costs and living expense budget information published by the College Board and/or similar agencies

<sup>3</sup> Applies to students enrolled in locations that require parking stamp.



independent of the institution. The Financial Aid Office, once it awards financial aid, will send students a financial aid offer that will include details of the costs of attendance used to determine eligibility for the academic year.

COA includes an estimate of direct and indirect costs. Direct costs such as: tuition and fees are detailed above. Indirect costs such as: food and housing, estimated cost of books, course materials, supplies and equipment, transportation, loan fees, and miscellaneous personal expenses are detailed below. Please note that COA for students who attend less than half-time, does not include miscellaneous personal expenses.

***Estimated Cost per term  
and per living arrangements***

<b>Component</b>	<b>Description</b>	<b>Living Off Campus</b>	<b>Living With Parent</b>
Books, course materials, supplies, and equipment	An allowance for books, course materials, and equipment.	440.00	440.00
Federal student loan fees	An allowance for the cost of any Federal student loan fee, origination fee, or insurance premium charged to the student or the parent of the student.	1.057% for Direct Subsidized Loans and for Direct Unsubsidized Loans. As an example, the loan fee on a \$5,500 loan would be \$58.13.  4.228% for Direct PLUS Loans (for both parent borrowers and graduate and professional student borrowers). As an example, the loan fee on a \$10,000 loan would be \$422.80.	1.057% for Direct Subsidized Loans and for Direct Unsubsidized Loans. As an example, the loan fee on a \$5,500 loan would be \$58.13.  4.228% for Direct PLUS Loans (for both parent borrowers and graduate and professional student borrowers). As an example, the loan fee on a \$10,000 loan would be \$422.80.
Living expenses	An allowance for food and housing costs, to be incurred by the student attending the institution on at least a half-time basis.	4,243.00	2,758.00
Miscellaneous personal expenses	An allowance, for a student attending the institution on at least a half-time basis.	1,784.00	1,641.00
Professional licensure, certification, or a first professional credential	An allowance for the costs associated with obtaining a license, certification, or a first professional credential, for a student in a program that prepares them to enter a profession that requires such a qualification.	Varies by program	Varies by program
Transportation	An allowance, which may include transportation between campus, residences, and place of work.	561.00	516.00

The COA may also include additional components that are evaluated on a case-by-case basis per student's request. These additional components may include: an estimate of dependent care costs, and expenses related to a disability. To apply for a COA adjustment, the student must complete an Application for Student Budget Adjustment. This document is available and can be requested at the Financial Aid Office.

## Student Tuition Recovery Fund (STRF)

### *For NUC California Online Students Only*

"The State of California established the Student Tuition Recovery Fund (STRF) to relieve or mitigate economic loss suffered by a student in an educational program at a qualifying institution, who is or was a California resident while enrolled, or was enrolled in a residency program, if the student enrolled in the institution, prepaid tuition, and suffered an economic loss. Unless relieved of the obligation to do so, you must pay the state-imposed assessment for the STRF, or it must be paid on your behalf, if you are a student in an educational program, who is a California resident, or are enrolled in a residency program, and prepay all or part of your tuition.

You are not eligible for protection from the STRF and you are not required to pay the STRF assessment, if you are not a California resident, or are not enrolled in a residency program.

It is important that you keep copies of your enrollment agreement, financial aid documents, receipts, or any other information that documents the amount paid to the school. Questions regarding the STRF may be directed to the Bureau for Private Postsecondary Education, 1747 North Market Blvd., Suite 225, Sacramento, CA 95834, (916) 574-8900 or (888) 370-7589.

To be eligible for STRF, you must be a California resident or are enrolled in a residency program, prepaid tuition, paid or deemed to have paid the STRF assessment, and suffered an economic loss as a result of any of the following:

1. The institution, a location of the institution, or an educational program offered by the institution was closed or discontinued, and you did not choose to participate in a teach-out plan approved by the Bureau or did not complete a chosen teach-out plan approved by the Bureau.
2. You were enrolled at an institution or a location of the institution within the 120 day period before the closure of the institution or location of the institution, or were enrolled in an educational program within the 120 day period before the program was discontinued.
3. You were enrolled at an institution or a location of the institution more than 120 days before the closure of the institution or location of the institution, in an educational program offered by the institution as to which the Bureau determined there was a significant decline in the quality or value of the program more than 120 days before closure.
4. The institution has been ordered to pay a refund by the Bureau but has failed to do so.
5. The institution has failed to pay or reimburse loan proceeds under a federal student loan program as required by law, or has failed to pay or reimburse proceeds received by the institution in excess of tuition and other costs.
6. You have been awarded restitution, a refund, or other monetary award by an arbitrator or court, based on a violation of this chapter by an institution or representative of an institution, but have been unable to collect the award from the institution.
7. You sought legal counsel that resulted in the cancellation of one or more of your student loans and have an invoice for services rendered and evidence of the cancellation of the student loan or loans.

To qualify for STRF reimbursement, the application must be received within four (4) years from the date of the action or event that made the student eligible for recovery from STRF.

A student whose loan is revived by a loan holder or debt collector after a period of noncollection may, at any time, file a written application for recovery from STRF for the debt that would have otherwise been eligible for recovery. If it has been more than four (4) years since the action or event that made the student eligible, the student must have filed a written application for recovery within the original four (4) year period, unless the period has been extended by another act of law. However, no claim can be paid to any student without a social security number or a taxpayer identification number."

## **Institutional Payment Policy**

### ***General Information with Regard to Institutional Payment Policy for Tuition and Fees***

The academic year consists of three trimesters with a duration of approximately 14 weeks each. Each trimester represents a payment period for financial aid purposes. All student payment balances pending after the applicable financial aid has been applied to the student's amount, these should be paid in accordance with the following options:

1. By paying the full balance upon the student's completion of the registration process and upon the student receiving their official program of study.
2. Through a payment plan of 3 payments per payment period.
3. Through any other grant or benefit for which the student may be eligible such as:
  - Clara Abbott Foundation Grant
  - Workmen's Compensation Fund Corporation
  - Arecibo Observatory Grant (Cornell University)
  - Vocational Rehabilitation
  - Veteran's Benefits Program
  - Workforce Investment Act (WIA) Funds
  - PR Law 7
  - Other

The disbursements will be credited directly to the student's account to cover the payment of tuition and fees. Once the tuition and fees for the academic year have been covered, a check will be issued for the amount in excess, if any, within the 14 days following the date in which the account reflects the credit.

### ***Payment Policy for students who are not eligible for Federal and/or State Financial Aid***

The Institution reserves the right to request an initial deposit from these students to receive their official program of study of no less than 35% of the total cost of their tuition and fees for the term in question.

### ***Continuing or Regular Students***

If the student has a pending debt with the institution from a prior term of studies, it should be paid in full before receiving the official program of study for the current term. The applicable procedure to make the payments will be governed by what is stated in the institution's enrollment agreement and the payment policy found in this catalog and available at the Student Accounts's Office.

### ***Payment procedure***

Payments can be made by cash, personal check, manager's check (payable to NUC University), ATM, American Express, Master Card, Visa or any debit or credit card accepted by the Institution. Payments made by credit card may also be made through the student portal. The Institution reserves the right to accept checks that are not made payable to NUC University. All checks returned by the bank will be subject to a \$15 fee payable upon collection of the check and cash payment of the amount for which the check was issued. In the event that NUC University uses an outside collection agency for non-payment of a student account, all related costs must be paid in full by the student. The Institution reserves the right to restrict certain services to students with outstanding balances. Some of these restrictions include authorization to enroll in a program or term, participation in the Graduation Ceremony and any other service that requires the student to have fulfilled their financial responsibility with the Institution.

### ***Cancellation prior to commencement of classes***

If a student cancels, their enrollment prior to the beginning of classes the Institution may charge him a \$100 administrative fee.

### ***Contract Training***

In the case of government or private sponsored contract training, an administrative cost will be included in the budget to cover administrative and student services provided to these students. This also includes all students trained with funds provided through the "Workforce Innovation and Opportunity Act" (WIOA).

## **Institutional Refund Policy**

The Institutional Refund Policy regulates how NUC University will manage the charges when a student cancels their enrollment, adds and/or drops courses during the add-drop period, or withdraws prior to completing a payment period. The Institutional Refund Policy applies to all students enrolled at any of NUC locations, with the exception of students enrolled in courses/programs that do not lead to a degree.

### ***Enrollment Cancellations***

The student has the right to cancel their enrollment agreement within three (3) business days from the student's signing their enrollment agreement or until the end of the add/drop period, as specified in the academic calendar, whichever ends later. To cancel the enrollment agreement, the student must complete the Enrollment Cancellation Request form, which is available at the Admission's Office. Upon cancellation of the enrollment agreement, the institution will cancel all of the student's financial obligations, other than books and supplies, if applicable, which are not returnable because of use.

### ***Add/Drop Period***

Any student who is enrolled for a payment period will have until the end of the add/drop period, as specified in the academic calendar, to add/drop courses without any fee. Please refer to the academic calendar for specific dates. Any charges for tuition and fees, as well as any funds paid for supplies, unused books or equipment which can be returned to the institution during this period will be refunded. Except for exceptional circumstances, there will be no adjustments for these charges after this period.

### ***No Show***

The institution will cancel all of the student's financial obligations for unattended payment periods, other than books and supplies, if applicable, which are not returnable because of use.

### ***Withdrawals***

If a student attends but withdraws from school after the add/drop period and prior to completing a payment period, the percentage used to determine the applicable charges will be the percentage of completed days from the total days in the payment period, rounded to the nearest 10%. NUC will use the last day of attendance to determine the days completed in the payment period. The table below provides details about how percentages are determined.

<b>Completed Days in Payment Period / Total Days in Payment Period</b>	<b>Percentage of Charges owed to the Institution</b>	<b>Percentage of Charges to be Refunded</b>
Up to 10.0%	10%	90%
10.01% - 20.0 %	20%	80%
20.01% - 30.0%	30%	70%
30.01% - 40.0%	40%	60%
40.01% - 50.0%	50%	50%
50.01% - 60.0%	60%	40%
60.01% - 100%	100%	0%

Example of an Institutional Refund Calculation for a student that withdraws during a payment period that begins on 1/7/2019 and ends on 3/28/2019. Tuition charges for the period are \$5,420.00.

Last Day of Attendance	Percent Attended	Percent of Tuition to be Refunded	Refund Amount
1/18/2019	14.81%	80%	\$4,336.00
02/16/2019	49.38%	50%	\$2,710.00

The following fees are exempt from adjustment in this refund policy. Unused electronic devices that are returned no later than 20 days from the date of the student's withdrawal (*Last date of attendance*) will be refunded.

- ✓ Electronic Device

The student is responsible for the outstanding balance on their account, after the institution has applied any financial aid for which the student is eligible. Institutional refunds shall be made within 30 days after the date that the institution determines that the student has withdrawn.

The Student Account's Office has the responsibility to apply this policy to the accounts of students which require it.

## Continued Education Courses Refund Policy

This policy applies to all students enrolled in courses/programs offered by NUC's Continued Education Division. The Continued Education Courses Refund Policy regulates how the student, and NUC University administrative staff should handle course cancellations and/or withdrawals, as well as how NUC will handle charges when a student cancels or requests/processes a withdrawal prior to completing their course.

### Cancellations and Non-Attendance to Courses or Programs

#### a. Administrative Cancellations

NUC reserves the right to make changes in its course/program offerings and/or cancel courses/programs if they do not meet the minimum enrollment requirement (quorum). Those enrolled in a cancelled course/program will be notified of the change via email or phone call and may opt for a change of section or a refund of the total (100%) payment made.

#### b. Cancellations

The student has the right to cancel their enrollment. To cancel enrollment, the student must contact the Registrar's Office. The student may choose to obtain a credit to take the course in a future section or receive a refund of the total (100%) payment made.

#### c. No Show

The institution will cancel all financial obligations of the student corresponding to payment periods not attended. The student will receive a refund, if applicable, of the full (100%) of the payment made on or before 45 days after it is determined that the student did not attend the course/program.

### Withdrawals or Terminations after Classes Have Started

#### a. Courses of (1) day or less

If the student attends and subsequently withdraws from a course with a duration of one day or less of instruction, they will not be eligible for a refund.

#### b. Courses of more than one (1) day

A student has the right to withdraw from a program they attended and is unable to complete. To withdraw, the student must notify the Registrar's Office.

The percentage used by the institution to determine the applicable charges will be based on the weeks completed by the student. A week is considered completed if the student attends at least one day. NUC will use the last day of attendance to determine the completed weeks of the period of obligation. The applicable percentage of charges will be calculated by dividing the total weeks completed by the total weeks in the period of obligation. Break days of 5 consecutive days or more will be excluded. NUC will not grant reimbursement once the student completes at least 50% of the obligation period.

Example of institutional refund calculation for a student who stops attending during a period of obligation beginning 1/8/2024 and ending 3/28/2024 (12 weeks). In this example, the tuition and fee charges applicable to the period are \$1,000.00.

<b>Last Day Of Attendance</b>	<b>Completed Weeks</b>	<b>Completed Percentage</b>	<b>Percent of Tuition to be Refunded</b>	<b>Refund Amount</b>
1/9/2024	1	8%	92%	\$920.00
1/18/2024	2	17%	83%	\$830.00
02/13/2024	6	50%	0%	\$0.00

### **c. Exceptional Circumstances**

Applicable tuition and fee charges may also be refunded in full for courses that are attempted but not completed during the period of obligation if the student notifies in writing and documents one of the following circumstances no later than 30 days of the occurrence:

1. Involuntary call to active military duty.
2. Documented death of the student or a family member (parent spouse, child, or sibling).
3. Illness of the student or immediate family member (parent, spouse, child) of such severity or duration, and confirmed in writing by a physician, as to prevent the student from completing the period of enrollment.
4. Other exceptional circumstances with the approval of the Executive Vice President of Student Finance.

### **Refund**

Applicable refunds will be made within 45 days from the date the student cancels or withdraws. The student is responsible for the outstanding balance on their account after the institution has applied any financial aid to which the student is entitled.

The institution will issue a check made payable to the student, according to the enrollment form and cancellation/withdrawal request. The check will be mailed to the student.

# Registrar

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NUC University's Registrar Office is an essential unit within the institution. This office provides a variety of services and supports for prospective students, current students, alumni, faculty, and staff. The main objective of the Registrar's Office is to protect the integrity of the institution's academic records.

## Registration Process

The Registrar's Office organizes the entire registration process. Active students are responsible for participating in this process to guarantee their selection of courses. All students should comply with the established requirements including the academic calendar. This enrollment process for continuing students including the courses pending academic counseling is carried out before the end of the term in progress. No enrollment will be valid until the student has paid all the necessary fees and has received the official enrollment form from the Registrar's Office.

## Enrollment Status

The enrollment status of students for diploma and undergraduate programs at our Institution is as follows:

Full Time Student	a student enrolled in 12 or more credits
3/4 Time Student	a student enrolled in 9-11 credits
1/2 Time Student	a student enrolled in 6-8 credits
Less than 1/2 Time Student	a student enrolled in less than 6 credits
Special Student	Enrollment for informational instruction only or for professional development. These students are not enrolled in a program of study.

The enrollment status of students for graduate programs at our Institution is as follows:

Full Time Student	a student enrolled in 6 or more credits
3/4 Time Student	a student enrolled in 4-5 credits
1/2 Time Student	a student enrolled in 3 or more credits
Less than 1/2 Time Student	a student enrolled in 1-2 credits

## Enrollment Periods

Enrollment will take place on the days and hours established in the Academic Calendar. After enrollment, students may make modifications to their program of study during the late enrollment period.

***Modifications during the period of change:*** In order to add or delete courses or change sections, students must complete the Add/Drop form.

## Procedure for Transfers from a NUC University Location to Another

The procedure for transferring from one NUC location to another should be initiated by the interested student with the location's Registrar's Office where the student is enrolled on the dates identified in the Academic Calendar; and conclude in the Registrar's Office of the location where they are transferring.

In order for the application to transfer be considered, the student must present evidence of having achieved a Satisfactory Academic Progress and must have complied with all the institution's contractual commitments.



## Notification/Grades Changes

At the end of each term, students can access their grades through the student portal on the website of NUC University. Students who experience difficulty accessing their grades through the Student Portal, should contact the Registrar's Office. If a student understands that there has been an error, the student should first contact their professor and if there was an error, should visit the Registrar's office to request a grade change form to be completed by the student's professor. The completed form should be returned to the Registrar's office no later than the established date in the institution's academic calendar.

## Unofficial Transcripts Request

Unofficial Transcripts can be accessed via the student portal.

## Official Documents Request

The student must have fulfilled all academic and administrative requirements with the institution before applying for an official document.

### Official Transcripts Request & Certificates

Until further notice, students are required to order their Official Transcripts online. NUC University partners with Parchment to provide official transcripts orders online. This service is provided to current, former students and graduates / alumni's for obtaining their official academic transcripts. Transcripts are available at [www.parchment.com](http://www.parchment.com) or directly at <https://www.parchment.com/u/registration/5397653/account>.

By using this service, you can request official transcripts both electronically and in hard copy using this website link. After placing your transcript request online, you can check the status of your transcript on Parchment's Order Status page by entering your order number. If Parchment is unable to process your request, you will be notified by email.

There is no transcript fee for transcripts going from one NUC campus to another NUC campus. If a student or alumni transcript is from any of these colleges or campuses, the Academic or Registrar staff can access your record if needed for transfer of credit evaluations during the admission process. It is important that students and alumni verify in the student portal the correct spelling of their names, address, and contact information before graduation or upon completion of your studies to ensure that the data is accurate in system.

### Diplomas

Diplomas are ordered four weeks after graduation once Student Accounts clear it for processing. The Registrar will submit to Parchment for processing and students will receive a notification via email regarding the availability of their electronic diploma. Students with unpaid tuition and fees will have their Parchment ordering availability placed on hold until the accounts are cleared and Parchment is notified by the Registrar or Student Accounts.

The diplomas are mailed to the address on record once the accounts are clear for processing. Please allow 6 to 10 weeks for this process to be completed. Students will receive both electronic copies first, followed by their diplomas via mail to the address on record at the institution. To order duplicate diplomas, the fee is \$35.00 and must be ordered by the student through Parchment.



## Student Location and Change of Address

At enrollment, students must provide the address where they are located on their enrollment agreement. Students are responsible for updating this information when their location changes. To formally change the address where a student is located, the student must request a change through the Student Portal at the institution's website. The institution is not responsible for students not receiving institutional correspondence if they do not request a change through the Student Portal.

## Institutional Withdrawal Policy

A student is considered to have withdrawn from a term (payment period) if the student does not complete all the days in the term that the student was scheduled to complete.

Students that are considering withdrawing as an option are encouraged to meet with the Academic Advisor and/or the Retention Officer before leaving school. Students must also review the Title IV and Institutional Refund Policies to have an understanding of how withdrawals could affect their accounts, amounts of Title IV received, and obligations to repay federal loans.

### ***Official Withdrawals***

A student is considered to have officially withdrawn when the official withdrawal process is completed.

### ***Official Withdrawal Process***

1. Student must contact the Registrar's Office (On ground students) or the Academic Advisor (Online Division) to notify their intent of withdrawal, from some or all courses, and request the Official Withdrawal Form.
2. Student must complete the Official Withdrawal Form and obtain the appropriate authorizations.
3. After completed, form must be returned to the Academic Advisor or Registrar's Office.

### ***Unofficial Withdrawals***

If the student does not complete the official withdrawal process but is absent for 14 consecutive days, without providing written confirmation of future attendance, they will be administratively withdrawn.

Any Armed Forces member enrolled, including reserve and National Guard members will be readmitted if such member is temporarily unavailable or must suspend enrollment because of serving in the Armed Forces.

### ***Reinstallation after Withdrawal***

A student who would like to rescind their notification of withdrawal, or appeal the institution decision of administrative withdrawal must complete the Withdrawal Appeal Form where the student indicates their intent to remain in academic attendance through the end of the term.

The completed Withdrawal Appeal Form must be submitted to the Registrar's Office or Academic Affairs for the appropriate evaluation.

### ***Satisfactory Academic Progress Effect of Withdrawals***

For the purpose of measuring the satisfactory academic progress of a student, withdrawals will be considered as courses not approved. This will not affect the student's cumulative grade point average, but will have an effect on the number of credits that the student should have successfully completed at the moment in which their academic record has been evaluated to measure the time frame for academic progress.

### ***Date of Determination and Withdrawal***

- For official withdrawals, the Date of Determination (DOD) will be the date the student completes the Official Withdrawal Process.
- For unofficial withdrawals, the DOD will be the date NUC University became aware that the student was not in attendance (no later than 14 days of LDA).
- For students that do not return after providing Written Confirmation of Future Attendance, the DOD will be no later than 14 days after the date student was scheduled to resume attendance.
- For all Withdrawal types, the Withdrawal date will be the last date of academic attendance (LDA) as determined by the attendance records.

### ***Deadline to Request Withdrawal***

The deadline to request partial or total withdrawals is established on the academic calendar. Students will request the corresponding form for the partial or total withdrawal directly from the Registrar's Office, where the process will begin and end.

### ***Financial Aid***

All students that received loans from the Federal Student Loan Program must complete an exit counseling session after leaving the institution, completing the program or reducing course load to less than half time. Exit counseling can be completed at: <https://studentloans.gov/myDirectLoan/index.action>.

Direct Subsidized Loans, Direct Unsubsidized Loans, Subsidized Federal Stafford Loans, and Unsubsidized Federal Stafford Loans have a six-month grace period before payments are due. PLUS loans have no grace period.

## **Registrar's Office Terms**

### ***No Show***

Refers to an enrolled student who does not attend any of their courses.

### ***Cancel***

Refers to an enrolled student who cancels its enrollment.

### ***Transfer Credits***

Credits granted for courses transferred from other collegiate institutions or other NUC University's programs.

## **Repeating Courses**

A student can repeat a course if he is interested in improving their grade. Repetition of previously failed courses may be counted in the student's enrollment status for Title IV funding purposes. However, repetition of a previously passed course may be counted in the student's enrollment status for Title IV funding purposes only one time. For this purpose, passed course means any completed course with a grade higher than an "F". For satisfactory academic progress purposes, each time a course is taken counts as an attempt; but only the first time a passing grade is received is it counted as completion. Only the highest grade will be used in the calculation of the cumulative grade point average.

## Student Records

The Office of the Registrar is responsible for the registration and maintenance of all student's academic transcripts, certifications of studies and of graduation. Students requiring information concerning grade records, issuance of transcripts and related services should contact the Registrar's office.

In compliance with the Family Educational Rights and Privacy Act of 1974, the confidentiality of student records is protected. Students may request or examine any information from their student record or they may authorize in writing that a third person be provided access to their academic record.

## Grading System

The grading system used is fully explained on the transcript. The evaluation of a student's academic progress in the institution is based on:

A = Excellent	4 grade point	4.00 – 3.50	(100-90)
B = Good	3 grade point	3.49 – 2.50	(89-80)
C = Satisfactory	2 grade point	2.49 – 1.60	(79-70)
D = Deficient	1 grade point	1.59 – .80	(69-60)
F = Failed	0 grade point	.79 – 0	(59-0)

The GPA is calculated by multiplying the total number of attempted credits by the respective numerical values of the grades (0.00 to 4.00) and the sum of these products is divided by the total number of credits completed.

### Administrative Notations

CE	Approved Credit by Competency Exam
CNP	C No Pass
DGA <sup>1</sup>	Deficient Associate Degree
DNP	D No Pass (D Deficient)
EW	Emergency Withdrawal
I	Incomplete
I(G) <sup>2</sup>	Incomplete
IP	In progress
NP <sup>3</sup>	No Pass
NR <sup>3</sup>	Grade not received
P <sup>3</sup>	Pass
TC	Transferred Credits
TD	Transfer Degree
T(G) <sup>4</sup> /TC(G)	Transferred Credits from Other Programs
W	Withdrawal
Y	Course accepted through credit transfer
*	Repeated Courses

<sup>1</sup> Only used for Associate's Degree programs.

<sup>2</sup> Until the final grade is received. If it is not replaced, in the case of I(G) the "G" grade will become the final grade. In the case of NR, the course will not be considered as attempted.

<sup>3</sup> Only used in the externships of the Culinary Arts and Beauty programs.

<sup>4</sup> T (G) – "G" will be the transferred grade.

## **Pass (Approved)/Not Passed (Not Approved)**

The pass or not-passed policy only applies to externship courses for the following academic programs leading to a diploma:

- Culinary Arts,
- International Pastry and Baking,
- Mixology/Bartending,
- Cosmetology,
- Barbering and Hairstyling,
- Nail Technology, and
- Esthetics.

These courses are taken under circumstances in which it is difficult to use the established grading evaluation system.

When a student receives a P in a practice course from a diploma program mentioned above, they have complied with the requirements of the practice and progresses in the Intended Credits. This grade acknowledges that the course credits have been approved, but it does not affect the calculation of the accumulative grade point average. In the case, that a student does not complete the assigned hours of a practice course or is suspended from said course by the practice supervisor, they receive an "NP" and an Incomplete, which can be removed by completing the missing hours in the following academic term. If the student does not complete the hours, then the "NP" and Incomplete becomes an "INP" and the student will not be eligible to obtain their diploma until the "INP" is removed.

# Student Affairs

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NUC University is committed in creating a holistic understanding of health, enhancing students' wellbeing, equity and social justice. The Student Affairs Department's core values support the Institution's mission by providing meaningful experiences and an inclusive environment to the learning community.

All students admitted to NUC University receive guidance on student consumer information and its accessibility on the institution's website. Students are also provided with guidance regarding the Student Handbook, the Satisfactory Academic Progress Policy, and other policies and procedures either directly or through the institution's website.

## Counseling Services

The Counseling Center provides comprehensive services to students in a private and confidential setting. The department offers services to enable students to be successful in academic adjustment and achievement. Individual and group counseling provides a framework for students to increase their skills and understanding in order for them to make informed decisions, succeed academically, and build meaningful and productive lives.

Trained, licensed counselors provide personal counseling sessions. The goal of counseling is to help students resolve personal, emotional, social, and environmental issues that affect academic success and learning.

## Retention

NUC University offers support services to ensure adaptation to university life. The Institution is aware that our students are going through decisive moments in their lives, which require adjustments in various aspects, considering them as integral beings. To achieve this, NUC's Retention Office provides a support structure for students, once they are enrolled until their last academic period, in order to encourage them to meet their academic and professional goals and achieve their completion. Furthermore, through the academic, social, environmental, and emotional components of the Retention Model, NUC aspires to develop resilience skills that will enable students to persist.

In order to achieve student retention, the Retention Office collaborates and accompanies new students through an induction process that integrates academic and social aspects that are essential for university life. In addition, through various innovative means of communication, the Retention Office immediately contacts and provides follow-up to students who are absent for any particular reason, makes referrals to the service offices for any risk situation that may cause a future dropout, and applies those processes that prevent the student from abandoning their academic goal. Also, it supports the process of re-entry to courses, and with any situation related to daily attendance to classes. The Retention Office serves as a liaison between the services of the institution and external services that the student may need. The main objective of the office is to support the teaching and learning process, and contribute to the service, development, and student experience.

## Student Organizations

All student organizations established under NUC University have bylaws that are compatible with the mission and philosophy of the institution and with local, state and federal laws. Organizations also have a faculty advisor who ensures compliance. Each organization is responsible for planning its own working plan and managing its own budget, within the established standards set out in the Student Handbook.

## **Registry of Fraternities, Sororities and Student Associations**

NUC University complies with the requirements established in Law 179 of June 30, 1999, as amended, which orders every institution of education to establish a registry of fraternities, sororities or associations of any kind, as well as with the Regulation on the Registration of Fraternities, Sororities and Associations Established by Institutions of Higher Education, No. 6426.

## **Student Activities**

The Institution offers a variety of activities, programs and services to support and complement the academic offerings and enhance student growth. The program of activities is aligned to the university's mission and retention model by contributing to the cultural, intellectual, environmental, emotional and social development of students. The activities' philosophy relies on the student development focused on personal growth and education. The main objective is to offer all students the opportunity to develop to their full potential.

## **Institutional Grievances or Complaints Policy**

A grievance or complaint is an action related to disagreements and controversies that arise in the university community and involves two persons, the complainant and the respondent, both members of the university community. An internal grievance policy has been established in order to consider student complaints about the actions of faculty or employees, whether administrative or academic. For the complete Institutional Grievance Policy please refer to the Student Handbook. Likewise, an internal grievance policy has been established to consider complaints received from employees and other interested parties. In the case of employees or interested parties, they should submit their complaint in writing to the Institutional Human Resources Director. Retaliation against a complainant or any individual involved is strictly prohibited and is grounds for discipline.

## **Complaints to regulators**

Enrolled and prospective students interested in filing a complaint with the institution's accreditor and/or its State licensing entity should first reference the institution's grievance policy included in this Catalog and in Student Handbook. If after having filed an internal grievance with NUC the student is not satisfied with the determination made, the student may file a complaint with the Junta de Instituciones Postsecundarias, Oficina de Registro y Licenciamiento de Instituciones de Educación, Departamento de Estado, Calle San José, San Juan, Puerto Rico 00901; PO Box 9023271, San Juan, Puerto Rico 00902-3271; Tel. (787) 722-2121. In addition, the student can file a complaint with the Middle States Commission on Higher Education, 3624 Market Street, Philadelphia, PA 19104 (267) 284-5000.

## Professional Development Center (PDC) - Placement

The NUC University PDC is responsible for providing job search and placement services to NUC University students and graduates as well as coordinating recruitment opportunities with employers. It offers a range of learning opportunities, career development resources, and work experiences to help the students to develop the employability skills needed for successful and gainful employment. NUC University and its staff do not guarantee employment and the processes or conditions established by the employer.

To achieve this objective, the PDC conducts different activities such as employability skills workshops in resume writing, job application strategies, networking, and interviewing. In addition, the PDC coordinates with employers to generate job orders.

Activity or Service	Description	Participants
PDC Services Introduction	Participation at every new student onboarding /orientation to introduce PDC staff and services as well as align expectation on employment assistance including externships (US)	New Students
Job Fairs	Job fairs that are in-person or virtual to offer students and graduates employment opportunities directly from employers.	Active students, near graduates and graduates
Licenses and/or Certifications (PR Only)	<ul style="list-style-type: none"> <li>Guidance on the importance of obtaining professional licenses and certifications according to the applicable program.</li> <li>Assistance in applying for professional licenses and/or certifications</li> <li>Guidance on requirements and assistance in the examination and licensing application process.</li> <li>Assistance in the process of exam fee reimbursement, if applicable.</li> <li>Collecting and documenting data on licensure passing rates.</li> </ul>	All students and graduates until 12 months after graduation
Mock Interviews	Interview simulation according to the position requested and methodology (virtual, face-to-face, telephone).	All students and graduates until 12 months after graduation
Program Advisory Committee	A committee of representatives from the academic community, employers, and alumni who voluntarily evaluate and provide input on academic programs.	Employers, Graduates, Academic Community
Referrals To Employment Opportunities	<ul style="list-style-type: none"> <li>Coordination of opportunities identified or submitted by employer (to be presented to the applicant).</li> <li>Employment Referral Follow-up (applicant – employer.</li> <li>Collecting and documenting job offers and/or referrals received and provided.</li> </ul>	All students and graduates up to 12 months after graduation.
Referrals to Internship / Opportunities (PR Only)	<ul style="list-style-type: none"> <li>Coordination of opportunities according to institutional collaborative alliances to be presented to the candidate.</li> <li>Assistance in identifying participants</li> <li>Collecting and documenting internship offers and/or referrals received and provided.</li> </ul>	All students and graduates with the minimum requirements of the position and up to 12 months after graduation
Externship Placement (US Only)	<ul style="list-style-type: none"> <li>Assistance in Externship program requirements preparation.</li> <li>Obtaining site affiliation agreements and maintain 150% availability for every extern cohort.</li> <li>Externship course student advising and coordinating with sites including timesheets and evaluations.</li> </ul>	All eligible externs and Extern Coordinators
Resume and/or Documents Verification	<ul style="list-style-type: none"> <li>Review of resume according to the employment opportunity.</li> <li>Assistance in the process of completing documents related to obtaining employment or requested by the employer.</li> </ul>	All students and graduates until 12 months after graduation.
Employability Skills Workshops	Workshops or orientations on specific topics identified and offered to increase students' skills or competitiveness in the labor market.	All students and graduates until 12 months after graduation

## Rules of Conduct

Students are expected to conduct themselves in a nature and manner that reflects the values and integral development in NUC University's mission. Students are expected to abide by the rules and regulations found in the Student's Handbook and the Institutional Catalog.

The Institution's main objective is that its students complete their program within an excellent academic environment and by receiving quality services. Such services require an atmosphere of adequate behavior conducive to an optimum learning environment. To that effect, every student must observe the following rules.

1. Students are expected to observe good behavior at all times at NUC University.
2. Classrooms are considered study areas where students should maintain silence and act orderly. Silence and order is also required in the Educational Resources Centers, study halls, laboratories and halls.
3. Regular and prompt attendance to classes and laboratories is an essential part of the academic program.
4. Appropriate dressing is required at all times. Students should be aware that some programs require a specific uniform to be worn during the internship and/or in certain laboratories.
5. Every student is required to hand-in requested documents at the necessary time.
6. The administration will expel from the Institution any student who damages or destroys any property of NUC University. Damaging or destroying any property or equipment of the Institution or of other students is reason for automatic expulsion of the student.
7. Students who have officially enrolled in NUC University have the right to use the laboratories corresponding to the courses they are enrolled in. However, they must be careful in handling laboratory and computer equipment and follow all rules governing their utilization.
8. Children are not allowed in classrooms and NUC University is not responsible for any injuries or accidents they may suffer.
9. Collection of money or any kind of selling without written authorization of the administration is prohibited.
10. The use of alcohol or illegal drugs at NUC University, or attending classes under the influence of said products is reason for automatically expelling the students involved in accordance with the Institution's policy.

The Institution may dismiss any student in case of violation of the rules of conduct set forth in the Student's Handbook or the Institutional Catalog. The Institution will keep a record of disciplinary actions taken. This record will be part of the student's academic record. Additional information regarding rules and regulations to be observed by students can be found in the Student Handbook.

## Cancellation of Agreement by the institution

NUC University reserves the right to cancel the student's enrollment for failure to comply with policies and procedures established by the institution.



## ***ACADEMIC AFFAIRS***

# Academic Affairs Policies

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## Standards of Satisfactory Academic Progress (SAP)

### ***Satisfactory Academic Progress Policy Declaration***

NUC University adopts this Satisfactory Academic Progress Policy in accordance with its academic and federal regulations, specifically 34 C.F.R. § 668.34.

### ***Applicability of Satisfactory Academic Progress Policy***

This policy applies to all students enrolled in NUC University Campuses and Technical Division units located in Puerto Rico and Florida, regardless of if they are full-time or part-time students, as a condition of maintaining eligibility for federal financial aid (and possibly other types of aid). The policy does not apply to students enrolled in Continuing Education courses. Separate from this policy, all students must also remain in compliance with their program's general academic standards.

### ***Definition of Satisfactory Academic Progress***

NUC University defines Satisfactory Academic Progress (SAP) as the required measurement of student's academic progress towards completing their academic program. SAP is evaluated with two standards: qualitative (GPA) and quantitative (percentage of credits successfully completed or "pace").

Students must maintain the required GPA and successfully pass the necessary credits in order to meet the qualitative and quantitative components of SAP. Failure to do so may result in a student's loss of federal financial aid eligibility as described in this policy. In order for the student to complete their academic program within the maximum time frame established for the program (the quantitative component of SAP), the student must progress through their program at an appropriate minimum pace (percentage of credits successfully completed).

An evaluation of SAP is not completed until both the qualitative and quantitative components are reviewed. If the evaluation shows that a student does not have the required GPA or is not maintaining the required pace, they become ineligible for FSA funds (*Federal Student Aid*) unless they are placed on Financial Aid Warning (eligibility for Financial Aid Warning is discussed below) or, after a successful appeal, on Financial Aid Probation.

### ***Roles and Responsibilities***

<b>Roles</b>	<b>Responsibilities<sup>1</sup></b>
Appeal Committee	The Appeals Committee is made up of representatives of the Office of Student Services, Registrar, Financial Aid, Student Accounts, Academics, and Professional Counselor or its equivalent.
Submission of Appeal Request	The student will submit any Satisfactory Academic Progress Appeal request to the Dean of Academic Affairs and/or Academic Director, who will convene the Appeal Committee for an appropriate evaluation.

## ***Satisfactory Academic Progress Policy Requirements***

### **Qualitative Component: Cumulative GPA**

In order to meet the qualitative standard of SAP, a student must achieve the minimum cumulative grade point average at each specified evaluation point. (*For more details, please refer to the Satisfactory Academic Progress Evaluation Chart*).

A student enrolled in a program of more than two academic years must have a GPA of at least "C" (2.0) or its equivalent or must have an academic standing equivalent to their program's graduation standards at the end of the student's second academic year to be meeting the qualitative standard of SAP.

### **Quantitative Component: Credits Successfully Completed**

In order to meet the quantitative standard of SAP, a student must progress through the program at the minimum cumulative pace in order to finish the academic program within the allowable maximum timeframe. Students who meet or exceed the minimum pace requirements will complete their program within the maximum timeframe as described in the Maximum Timeframe section of this policy.

The quantitative component is measured by dividing the credits successfully completed by the number of credits attempted. Students must successfully complete a minimum percentage of all credits attempted at each evaluation point to meet the minimum SAP standards (*Please refer to the Satisfactory Academic Progress Evaluation Chart*).

**The chart below provides information about how grades affect the Qualitative (GPA) and Quantitative (credits) components.**

<b>Grade Type</b>	<b>Grade</b>	<b>GPA</b>	<b>Credits/ Hours Attempted</b>	<b>Credits Completed</b>	<b>Maximum Time Frame</b>
Passing Grades	A, B, C, D	Yes	Yes	Yes	Yes
Additional Passing Grades	CE, P, YP	No	Yes	Yes	Yes
Failing Grades	F, CNP, DNP	Yes	Yes	No	Yes
No Pass Grades	NP	No	Yes	No	Yes
Incompletes	I	No	Yes	No	Yes
Dropped Courses (Withdrawals)	W	No	Yes	No	Yes
Emergency Dropped Courses (COVID-19 related)	EW	No	No	No	No
Repeated Courses	As earned for each attempt at the course	Highest grade earned	Yes, all attempts of the course	Yes, all attempts of courses successfully completed	Yes, all attempts of the course
Credits Transferred from Prior Programs at NUC Accepted Towards the Current Program	TCA, TCB, TCC	Yes	Yes	Yes	Yes
Credits Transferred from Other Institutions that were Accepted Towards the Current Program	TC, Y	No	Yes	Yes	Yes

NUC does not offer remedial courses; therefore, remedial courses are not discussed in this policy.

Courses that are dropped during the add/drop period are not included in the evaluation of SAP.

### ***Maximum Timeframe***

Students are required to complete their program within the maximum timeframe. NUC's SAP Policy defines the maximum timeframe for all programs as 150% of the published length of the program of study in credit hours. The maximum time is based on credits attempted and is determined by multiplying the number of credits published in the program by 1.5. For example, a 64-credit program would have a maximum timeframe of 96 credits to complete the program.

A student does not meet the maximum timeframe standards when it becomes mathematically impossible to complete the program within 150% of the published length of the program. A student who does not meet the maximum timeframe standards loses eligibility for financial aid, unless the student completes an appeal process and the appeal is approved. (*For more information, see the Appeal Process*).

### ***Evaluation Procedure***

The Registrar's Office will evaluate SAP at the end of each academic term. (*For details, refer to the SAP Evaluation charts*)

### ***Reevaluation Procedure***

The Registrar's Office will reevaluate SAP for students in rare instances of grade changes or a final grade received late from a faculty member. The Registrar will send a written communication notifying the student of the results of the evaluation if due to the grade change the student is no longer meeting the standards of SAP. NUC will not alter financial aid already disbursed to students based on SAP evaluations that were accurate at the time they were performed.

If a formerly incomplete course is assigned a grade, that grade will be accounted for in the next regular SAP evaluation.

### ***Satisfactory Academic Progress Statuses and Notification Process***

If a student fails to meet the SAP standards, the Registrar's Office will send written notification indicating the results of the evaluation, the SAP status under which student was placed, and any applicable process that should be followed to maintain or regain financial aid eligibility.

### ***Financial Aid Warning***

Financial Aid Warning is a status assigned to a student who was meeting the standards of SAP during the prior term's SAP evaluation but fails to comply with the qualitative and / or quantitative component as established in the SAP policy at the most recent SAP evaluation (i.e., newly not meeting standards).

Students who are placed under a Financial Aid Warning status will be eligible to receive financial aid for the payment period following the period in which the student failed to meet SAP standards. Students are expected to improve their academic performance during this Financial Aid Warning period. If a student fails to meet the minimum qualitative and/or quantitative standards described above during the Financial Aid Warning period, the student will be placed on Suspension of Financial Aid status and lose eligibility for FSA programs unless a financial aid appeal is filed and approved. If the appeal is approved, the student will be placed under a Financial Aid Probation period.

### ***Suspension of Financial Aid***

Students placed on Suspension of Financial Aid status lose eligibility for financial aid. A student will be placed on Suspension of Financial Aid status if any of the following apply:

- The student fails to meet the cumulative standards of SAP after completing a term on Financial Aid Warning, or

- The student fails to meet the cumulative standards of SAP after completing a term on Financial Aid Probation or fails to adhere to the Academic Plan required for their Financial Aid Probation status, or
- It is mathematically impossible for the student to complete the program within the maximum time frame allowed.

Students will receive written notification of Suspension of Financial Aid from the Registrar's Office. The Registrar will also notify the Dean of Academic Affairs, Financial Aid and the Student Accounts Office of the student's ineligibility for financial aid.

Unless a student has been informed that they have exhausted all SAP appeals, they may appeal the Suspension of Financial Aid status (see Financial Aid Appeal Process below).

Students may continue studies without financial aid after suspension if otherwise permitted in accordance with the academic standards associated with the student's program of enrollment. If the student continues without financial aid, the student will be responsible for the full cost that may apply during such period.

### ***Financial Aid Appeal Process***

An appeal is a process where a student who is not meeting SAP standards asks the institution to reconsider their eligibility to receive financial aid funds. The appeal process applies to students who do not meet the SAP requirements in the period evaluated.

If the student experienced extenuating circumstances that prevented him/her from complying with the SAP requirements, the student may appeal the decision to suspend the student from the financial aid programs.

NUC considers the following as examples of extenuating circumstances:

- Student illness
- Family illness
- Distress in the family unit, such as: divorce or death of parents, spouse or children
- Loss of employment or potentially significant changes in working hours during the term
- Abusive relationships
- Natural disasters
- Financial difficulties such as foreclosure or eviction
- Other situations beyond student's control

To initiate the appeal process, the student must complete and submit a request for Satisfactory Academic Progress Appeal within a period of five (5) business days from the date of receipt of the notification. The student must be able to explain what has changed in their situation that will allow them to meet the SAP requirements at the next evaluation. The application is available at the Registrar, Counseling and Academics offices.

The responsibility of the Committee is to evaluate the reasons presented in the Financial Aid Appeal application, decide if the appeal should be approved or denied, and if the appeal is approved, determine if at the end of the next term the student will be able to meet the standards of SAP or if an Academic Plan is required.

The Appeals Committee will evaluate the Request for Appeal of Satisfactory Academic Progress and notify the Dean of Academic Affairs or designee of the decision. This Committee must establish a meeting schedule for each academic term, with a set period of time for the student to document their case and present it to the Committee in writing. The Registrar's Office will send the student written notice no later than 5 calendar days

from the date of the committee's decision. This notification will be sent from the Student Administration System, and will be accessible to the Academic, Registration, Counseling, Financial Aid and Student Accounts offices.

If the appeal is approved, the student will be eligible for financial assistance during the Financial Aid Probation term. Once the Financial Aid Probation period ends (at the next evaluation point), in order to maintain eligibility for financial aid, the student must be able to demonstrate that they meet the requirements of SAP or is adhering to the terms of their Academic Plan. The student has the opportunity to appeal again if they fail to comply with the agreements established for the Financial Aid Probation period.

### ***Financial Aid Probation***

This status applies to those students who have not been able to meet the SAP requirements resulting in Suspension of Financial Aid status, but subsequently complete the appeal process and their appeal is approved (*Please refer to the Appeal Process above*).

The Financial Aid Probation period is only for an academic term. The approval of an appeal will require that the student be placed on an Academic Plan during the Financial Aid Probation period if it is unlikely for the student to be able to meet SAP standards by the end of the payment period under Financial Aid Probation. The purpose of the Academic Plan is to provide that the student is monitored each subsequent payment period to ensure they are progressing to graduation (*Please refer to the Appeal process and Academic Plan below*).

Students will be eligible for financial aid during the payment period under a Financial Aid Probation status. Once the Financial Aid Probation period ends, students must be able to show they meet the requirements of SAP or the Academic Plan to maintain eligibility for financial aid.

### ***Academic Plan***

Academic plans are developed by the Counselor or designated academic representative in conjunction with the student to ensure that the student is able to meet the institution's SAP standards by a specific point of time.

If a student successfully appeals and is placed on a Financial Aid Probation status with an Academic Plan, the student will retain eligibility for federal financial aid if they meet the standards of SAP or is meeting the terms of the Academic Plan at each SAP evaluation period. To continue in the Academic Plan after the initial Financial Aid Probation period, the Academic Counselor will follow up and document that the student is meeting the requirements of the Academic Plan. If a student wants to change their Academic Plan, they must submit an appeal.

### ***Reestablishing Financial Aid Eligibility***

A student who has had their financial aid status suspended can reestablish eligibility for federal financial aid by attending courses without the benefit of financial aid and meeting the cumulative qualitative (GPA) and quantitative (pace) standards. A student who has lost federal financial aid eligibility due to maximum timeframe cannot reestablish eligibility for the same program of study unless they successfully appeal. NUC allows for two program changes, however, on a case-by-case basis, the Vice President of Academic Affairs may approve additional changes.

### ***Covid-19 Exception for SAP Criteria***

Section 3509 of the CARES Act allowed institutions to exclude any attempted credits from the calculation of SAP that a student has not been able to complete because of a circumstance related to the COVID-19 pandemic.

Permitted circumstances include, but are not limited to:

- Illness of the student or a member of their family
- The need to become a caregiver or first responder
- Economic difficulties
- Increase in working hours
- Loss of childcare
- Inability of continuing with classes through online education

This exception is available to students upon request to the Registrar's Office for any terms that included the start and end dates of the COVID-19 national emergency (March 5, 2020 to April 10, 2023, or an end date for COVID-19 related flexibilities to be confirmed by the U.S. Department of Education). Appropriate documentation must be provided to support permitted circumstances.

For example, the completion rate of a student who has completed 78 of the 120 attempted hours in a bachelor's degree program is 65 percent (78/120), which is below the SAP standards. However, if a student confirmed that the 12 credits they attempted but were unable to complete in the spring 2020 term were due to a circumstance related to COVID-19, the rate is recalculated to omit the 12 credits resulting in a revised completion rate of 72 percent (78/108), which meets SAP standards. The 12 credits attempted are also excluded from the maximum timeframe and GPA.

## Satisfactory Academic Progress Evaluation Charts

**Requirements for Satisfactory Academic Progress:** Satisfactory Academic Progress will be evaluated at the end of each academic term (payment period). At each evaluation point, students must achieve a cumulative GPA and a minimum of required credits, as shown in the SAP charts below:

### ***DIPLOMA PROGRAMS***

Program	Program Credits	Maximum Timeframe to Complete the Program in Credits	Minimum Cumulative GPA	Minimum Cumulative Pace (Credit hours completed / Credit hours attempted)
Administrative Assistant with Medical Billing	36	54	2.00	66.67%
Advanced Hairstyling and Design	24	36	2.00	66.67%
Barbering and Hairstyling	36	54	2.00	66.67%
Business Administration Specialist	28	42	2.00	66.67%
Mixology/Bartending	24	36	2.00	66.67%
Computer Repairs and Network Technician	24	36	2.00	66.67%
Construction Technician	24	36	2.00	66.67%
Cosmetology	32	48	2.00	66.67%
Dental Assistant with Expanded Functions	36	54	2.00	66.67%
Electricity with Renewable Energy	33	50	2.00	66.67%
Emergency Medical Technician-Basic	20	30	2.00	66.67%
Esthetics	36	54	2.00	66.67%
Funeral Home Management and Embalming	48	72	2.00	66.67%
Geriatric Technician	24	36	2.00	66.67%
Graphic Design	36	54	2.00	66.67%
International Pastry and Baking	36	54	2.00	66.67%
Master in Barbering	24	36	2.00	66.67%
Nail Technology	24	36	2.00	66.67%
Network Administration	36	54	2.00	66.67%

<b>Program</b>	<b>Program Credits</b>	<b>Maximum Timeframe to Complete the Program in Credits</b>	<b>Minimum Cumulative GPA</b>	<b>Minimum Cumulative Pace (Credit hours completed / Credit hours attempted)</b>
Pharmacy Technician	48	72	2.00	66.67%
Plumbing Technician	33	50	2.00	66.67%
Practical Nursing with Electrocardiography (EKG)	36	54	2.00	66.67%
Practical Nursing	36	54	2.00	66.67%
Preschool Teacher Assistant	36	54	2.00	66.67%
Professional Massage Therapist	31	47	2.00	66.67%
Refrigeration and Air Conditioning with Inverters	36	54	2.00	66.67%
Culinary Arts	36	54	2.00	66.67%
Tourism and Hotels	36	54	2.00	66.67%
Training and Physical Conditioning Technician	36	54	2.00	66.67%

### ***ASSOCIATE'S DEGREES PROGRAMS***

<b>Program</b>	<b>Program Credits</b>	<b>Maximum Timeframe to Complete the Program in Credits</b>	<b>Minimum Cumulative GPA</b>	<b>Minimum Cumulative Pace (Credit hours completed / Credit hours attempted)</b>
Associate's Degree in Business Administration	69	103.5	2.00	66.67%
Associate's Degree in Business Administration in Entrepreneurship	67	100.5	2.00	66.67%
Associate's Degree in Business Administration in Entrepreneurship on/after 2021	65	97.5	2.00	66.67%
Associate's Degree in Physical Therapist Assistant on/after 2016	77	115.5	2.00	66.67%
Associate's Degree in Dental Assistant with Expanded Functions on/after 2014	78	117	2.00	66.67%
Associate's Degree in Applied Sciences in Cardiorespiratory Care on/after 2021	80	120	2.00	66.67%
Associate's Degree in Applied Sciences in Clinical Sonography	90	135	2.00	66.67%
Associate's Degree in Applied Sciences in Clinical Sonography on/after 2021	78	117	2.00	66.67%
Associate's Degree in Applied Sciences in Radiology Technology	90	135	2.00	66.67%
Associate's Degree in Applied Sciences in Radiology Technology on/after 2021	76	114	2.00	66.67%
Associate's Degree in Accounting	64	96	2.00	66.67%
Associate's Degree in Nursing	70	105	2.25	66.67%
Associate's Degree in Medical Billing and Coding	61	91.5	2.00	66.67%
Associate's Degree in Criminal Justice	71	106.5	2.00	66.67%
Associate's Degree in Criminal Justice on/after 2021	70	105	2.00	66.67%
Associate's Degree in Leadership in Public Security	61	91.5	2.00	66.67%
Associate's Degree in Office Systems in Medical Secretary	84	126	2.00	66.67%
Associate's Degree in Office Systems in Medical Secretary on/after 2020	77	115.5	2.00	66.67%
Associate's Degree in Pharmacy Technician	76	114	2.00	66.67%
Associate's Degree in Electrical Engineering Technology in Renewable Energy	76	114	2.00	66.67%



<b>Program</b>	<b>Program Credits</b>	<b>Maximum Timeframe to Complete the Program in Credits</b>	<b>Minimum Cumulative GPA</b>	<b>Minimum Cumulative Pace (Credit hours completed / Credit hours attempted)</b>
Associate's Degree in Network Technology and Applications Development	74	111	2.00	66.67%
Associate's Degree in Web Application Development	74	111	2.00	66.67%
Associate's Degree in Gastronomy and Culinary Management	72	108	2.00	66.67%
Associate's Degree in Emergency Medical Technician - Paramedic	77	115.5	2.00	66.67%

### ***BACHELOR'S DEGREES PROGRAMS***

<b>Program</b>	<b>Program Credits</b>	<b>Maximum Timeframe to Complete the Program in Credits</b>	<b>Minimum Cumulative GPA</b>	<b>Minimum Cumulative Pace (Credit hours completed / Credit hours attempted)</b>
Bachelor's Degree in Business Administration with major in Healthcare Management	120	180	2.00	66.67%
Bachelor's Degree in Business Administration with major in Accounting on/after 2013	121	181.5	2.00	66.67%
Bachelor's Degree in Business Administration with major in Accounting on/after 2021	130	195	2.00	66.67%
Bachelor's Degree in Business Administration with major in Management	120	180	2.00	66.67%
Bachelor's Degree in Business Administration with major in Business Intelligence	120	180	2.00	66.67%
Bachelor's Degree in Business Administration with major in Finance	121	181.5	2.00	66.67%
Bachelor's Degree in Business Administration with major in International Business	120	180	2.00	66.67%
Bachelor's Degree in Business Administration with major in Human Resources	120	180	2.00	66.67%
Bachelor's Degree in Business Administration with major in General Business	120	180	2.00	66.67%
Bachelor's Degree in Business Administration with major in Project Management	120	180	2.00	66.67%
Bachelor's Degree in Business Administration with major in Social Media Marketing	120	180	2.00	66.67%
Bachelor's Degree in Science in Nursing	122	183	2.50	66.67%
Bachelor's Degree in Science in Nursing (RN to BSN)	52	78	2.50	66.67%
Bachelor's Degree in Criminal Justice with major in Cyber Crimes	120	180	2.00	66.67%
Bachelor's Degree in Criminal Justice with major in Cyber Crimes on/after 2021	121	181.5	2.00	66.67%
Bachelor's Degree in Criminal Justice with major in Forensic Investigation	120	180	2.00	66.67%
Bachelor's Degree in Criminal Justice with major in Forensic Investigation on/after 2021	121	181.5	2.00	66.67%
Bachelor's Degree in Criminal Justice with major in Homeland Security	120	180	2.00	66.67%
Bachelor's Degree in Criminal Justice with major in	121	181.5	2.00	66.67%

<b>Program</b>	<b>Program Credits</b>	<b>Maximum Timeframe to Complete the Program in Credits</b>	<b>Minimum Cumulative GPA</b>	<b>Minimum Cumulative Pace (Credit hours completed / Credit hours attempted)</b>
Homeland Security on/after 2021				
Bachelor's Degree in Criminal Justice with major in Human Services	120	180	2.00	66.67%
Bachelor's Degree in Criminal Justice with major in Human Services on/after 2021	121	181.5	2.00	66.67%
Bachelor's Degree in Criminal Justice on/after 2012	117	175.5	2.00	66.67%
Bachelor's Degree in Criminal Justice on/after 2013	120	180	2.00	66.67%
Bachelor's Degree in Criminal Justice on/after 2021	121	181.5	2.00	66.67%
Bachelor's Degree in Science in Psychology	120	180	2.50	66.67%
Bachelor's Degree in Information Technology with major in Network Administration	120	180	2.00	66.67%
Bachelor's Degree in Information Technology with major in Software Analysis and Development	120	180	2.00	66.67%
Bachelor's Degree in Information Technology with major in Information Assurance and Security	120	180	2.00	66.67%
Bachelor's Degree in Network Technology and Application Development	120	180	2.00	66.67%

### ***POST BACCALAUREATE CERTIFICATES***

<b>Program</b>	<b>Program Credits</b>	<b>Maximum Timeframe to Complete the Program in Credits</b>	<b>Minimum Cumulative GPA</b>	<b>Minimum Cumulative Pace (Credit hours completed / Credit hours attempted)</b>
Graduate Certificate in Accounting	20	30	3.00	66.67%
Graduate Certificate in Management and Educational Leadership	18	27	3.00	66.67%
Graduate Certificate in Online Education	18	27	3.00	66.67%

### ***MASTER'S DEGREES PROGRAMS***

<b>Program</b>	<b>Program Credits</b>	<b>Maximum Timeframe to Complete the Program in Credits</b>	<b>Minimum Cumulative GPA</b>	<b>Minimum Cumulative Pace (Credit hours completed / Credit hours attempted)</b>
Master's Degree in Business Administration	39	58.5	3.00	66.67%
Master's Degree in Business Administration with Specialty in Digital Marketing	39	58.5	3.00	66.67%
Master's Degree in Business Administration with Specialty in Planning and Strategy	39	58.5	3.00	66.67%
Master's Degree in Business Administration with Specialty in Healthcare Management	39	58.5	3.00	66.67%
Master's Degree in Business Administration with Specialty in Human Resources	39	58.5	3.00	66.67%
Master's Degree in Education with Specialty in Curriculum	39	58.5	3.00	66.67%
Master's Degree in Education with Specialty in Educational Leadership	39	58.5	3.00	66.67%

<b>Program</b>	<b>Program Credits</b>	<b>Maximum Timeframe to Complete the Program in Credits</b>	<b>Minimum Cumulative GPA</b>	<b>Minimum Cumulative Pace (Credit hours completed / Credit hours attempted)</b>
Master's Degree in Education with Specialty in Assessment and Effectiveness	39	58.5	3.00	66.67%
Master's Degree in Information Technology	39	58.5	3.00	66.67%
Master's Degree in Science in Nursing with Specialty in Education	36	54	3.00	66.67%
Master's Degree in Science in Nursing with Specialty in Medical- Surgical and Role in Education	36	54	3.00	66.67%
Master's Degree in Science in Nursing with Specialty in Medical- Surgical and Role in Management and Executive Leadership	36	54	3.00	66.67%
Master's Degree in Industrial Organizational Psychology	45	67.5	3.00	66.67%

## Academic Integrity Institutional Policy

NUC's principles of academic integrity will not tolerate acts of falsification, misrepresentation, intellectual dishonesty, whether intentional or unintentional or deception. Such acts of intellectual dishonesty include, but are not limited to, cheating, plagiarism, fabricating data or citations, stealing examinations, selling or distributing stolen examinations, using faculty member editions of textbooks without authorization, taking an exam for another student, using technology to disseminate exam questions and answers, tampering with the academic work of another student, misuse of grant or institutional funds, facilitating other students' acts of academic dishonesty, academic sabotage, and resubmitting work completed in another course (with the exception of compiling previous coursework, if approved, into a Directed Research Project).

The student will be responsible for reading and complying with the Academic Integrity Policy available on the Institution's Website.

## Copyright Institutional Policy

The Copyright Act (Title 17 - United States Federal Code) protects authors of "original works of authorship" including literary, drama, musical, artistic and certain intellectual works, among others. This law includes the exclusive right of the author or owner of the work to authorize others to reproduce, prepare derivative works, or distribute the works of their authorship.

The infringement of the Copyright Act is the act of exercising, without permission or legal authority, one or more of the exclusive rights granted to the holder of the right under article- 106 of the Copyright Act (Title 17 of the Code of United States). These rights include the right to reproduce or distribute a copyrighted work. In the context of file sharing, uploading or downloading substantial parts of a copyrighted work without permission constitutes an infringement.

NUC University prohibits faculty and administrative personnel to encourage, assist or authorize illegal copying of works protected by the Copyright Act. The infringement of this policy will result in corrective action or disciplinary measures including suspension or termination from employment. Violation of this policy by students may lead to other actions and sanctions as stipulated in the Academic Integrity Policy and the Student Handbook available on our website at [www.nuc.edu](http://www.nuc.edu).

Moreover, the penalties for infringement of copyright include civil and criminal penalties. In general, any person

found guilty may be sentenced to pay either actual or statutory damages of not less than \$750 and not more than \$30,000 for the infringed work. For willful infringement, the court may award up to \$150,000 for the infringed work. A court may at its discretion, also assess attorneys' costs and fees. For more information, refer to Title 17, United States Code, Sections 504, 505. Willful copyright infringement can also result in criminal penalties, including imprisonment of up to five years and fines of up to \$250,000 dollars for each offense. To obtain more information, please refer to the U.S Copyright Office's website [www.copyright.gov](http://www.copyright.gov).

It is everyone's responsibility to ensure compliance with this Act, so it is our responsibility to orient students and staff to ensure compliance.

## Competency Exams

A student who understands that they possess the knowledge or professional experience taught in a course may challenge that course through examinations, subject to academic evaluation and availability. Diploma and undergraduate students can apply for and take competency exams for any course in their program of study, subject to academic evaluation, availability and depending upon the regulations and/or the accreditation standards of those academic programs. Not all program courses will be available for competency exams. This exam will be authorized to students after they have been officially enrolled in the institution and active in the term in which they apply for the exam.

The student may not challenge more than two (2) courses per academic term for undergraduate programs, and one (1) course per academic module in the diploma programs, as long as they do not exceed the maximum number of transfer credits established in the Transfer Credit Policy. Courses in preparation for licensure exams, externship courses\*, and courses in which the student has been enrolled and active will not be challenged. Competency exams will not be available for graduate programs and post baccalaureate certificates.

The competency exam may be taken only once, which means that if the student failed the competency exam cannot repeat the exam and must enroll to the course. If the student passes the exam with a grade of 70 per cent or higher, he will obtain the value in credits assigned to that course. No grade will be assigned for competency exams.

The student will pay at the Student Accounts Office the current tuition and fees, which are non-refundable for each of the courses they are interested in challenging, and will submit the application with the Student Accounts Office stamp to the Academic Affairs Office.

Competency exam validated credits will have no effect on the calculation of the GPA; however will affect attempted credits/ hours.

### Requirements and processes to follow:

1. The student will request to challenge a course by filling out the *Request for Competencies Exam (Challenge)* form at the Registrar's Office and must take the test on or before the end of the period of changes established in the academic calendar.
2. The student must make the corresponding payments at the Student Accounts Office before starting the coordination and administration process of the exam. No extensions or payment plans is allowed.
3. The Academic Affairs Office will be responsible for the coordination processes to select the faculty members who will administer and evaluate the exam. In addition, they will notify the student of the time and place where the test will be held. This office will be the one to disclose to the student the results of the exam and the one to deliver the corresponding documentation to the Registrar's Office so that they can be kept in the student's file.

4. The period for coordinating and administering the competencies exam will be during the period established in the academic calendar.
5. The Registrar's Office will process in the system the courses approved by validation by competencies exam.

## **Request Award and Remove Incomplete (I) Provisional Grades Institutional Policy**

An incomplete grade is a provisional grade given to a student who, for acceptable and justifiable reasons, failed to complete all assignments or laboratory or practice hours required before the completion of a course, but is expected to complete them in a reasonable time to receive credit and a satisfactory grade. Approval of an incomplete is at the discretion of the professor or authorized academic personnel. Students may request a provisional grade of incomplete if they meet the conditions and reasons described below.

To receive a grade of Incomplete, students must complete the Request for Provisional Grade of Incomplete on or before the deadline established in the academic calendar. The request must include the reason that prevented the student from completing the required course material prior to the date of completion and, if necessary, must include any supporting documents. The reason given by the student cannot be an impediment for the student to remove the incomplete within the date established in the academic calendar or agreed upon with the professor. The professor must validate that there is a reasonable expectation that the student can receive credit and obtain a satisfactory grade.

To be considered to receive an incomplete, the student's request must include an acceptable reason why the student feels the need to request additional time to complete the required material or hours of the theory, laboratory, or practical course. The institution considers the following reasons to be acceptable:

1. the health condition of the student
2. the temporary health condition of a close family member
3. the death of a close family member
4. limitation in practice center or laboratory to complete hours
5. military or emergency management services deployment
6. emergencies such as atmospheric phenomena and epidemics, among others
7. other justifiable reasons (subject to the evaluation and approval by the professor and the authorization of the Dean of Academic Affairs, Academic Director, or designated person)

### ***Process for Requesting an Incomplete Provisional Grade:***

1. The student will request the form, *Request for Provisional Grade of Incomplete* through:
  - the Registrar's Office – NUC University campuses in Puerto Rico or IBC Technical Division
  - the Academic Advisor – Online Division
  - the course professor – Florida Technical College campuses
  - the forms section of the following web pages:
    - NUC Campuses: <https://www.nuc.edu/registraduria/>
    - IBC Technical Division: <http://tecnicos.nuc.edu/asuntos-estudiantiles/registraduria/>
    - FTC: <https://www.ftccollege.edu/academic-support/>
2. The Request for Provisional Grade of Incomplete document must be duly completed, signed, and accompanied by corresponding evidence.
3. The student will submit the application to the course professor or academic advisor (Online Division) either in person or via email, along with the corresponding evidence on or before the deadline established in the academic calendar of the term for which the student is interested in applying for

the provisional grade. If the professor is not available, the documents will be submitted to the Dean, Program Director, or designated personnel.

4. The course professor will evaluate the documents presented by the student to evidence the extenuating circumstances that limited the delivery of assignments or the completion of practice hours and laboratories.
5. The professor will determine whether to grant the request and deliver the Request for Provisional Grade of Incomplete document duly completed and signed in all its parts to the Registrar's Office. If the request is approved, it will include the grade that the student would get if the required assignments or hours (provisional grade) are not completed, which will be awarded as a final grade if the student does not complete the incomplete removal process. To calculate the provisional grade, the professor will consider the assignments that the student has not submitted, placing a score of 0 on the work that has not been completed.
6. The professor or designated personnel will notify the student of the decision through institutional email or other available means and coordinate the due date for make-up assignments, practice, or laboratory hours with the student.
7. If the request is approved, the student will pay the (non-refundable) Incomplete Removal fee at the Student Accounts's Office, based on the "tuition and fees" in effect at the time of the request and as published in the General Catalog.
8. If a student requests a provisional grade of incomplete in their last course of practice and in their last academic term, the student will be awarded Externship Complete status.
9. The student will have 12 days, from the beginning of the next module or semester, to remove the provisional grade of incomplete of a theory or laboratory course.
10. The student will have 45 days, from the beginning of the next module or semester, to remove the provisional grade of incomplete of a practicum course.

***Process for Requesting Removal of an Incomplete Provisional Grade:***

1. The student will request the form, *Removal of the Provisional Grade of Incomplete* through:
  - the Registrar's Office – NUC University campuses in Puerto Rico or IBC Technical Division
  - the Academic Advisor – Online Division
  - the course Academic Dean – Florida Technical College campuses
  - the forms section of the following web pages:
    - NUC Campuses: <https://www.nuc.edu/registraduria/>
    - IBC Technical Division: <http://tecnicos.nuc.edu/asuntos-estudiantiles/registraduria/>
    - FTC: <https://www.ftccollege.edu/academic-support/>
2. The student will complete the Removal of the Provisional Grade of Incomplete document and deliver it with the authorized seal or signature (DocuSign) of the Student Accounts's Office to the Registrar's Office, where the document will be kept until the professor delivers the final grade.
3. The student will submit the receipt of the payment to the professor, along with a copy of the Removal of the Provisional Grade of Incomplete document, to establish the work plan to be followed for the removal of the incomplete assignments for the theoretical course or for making up the required laboratory or practice hours. If the professor is not available, the documents will be delivered to the Dean of Academic Affairs, Academic Director, or Academic Advisor, as appropriate, who will acknowledge receipt of the documents.
4. The student will complete their assignments or laboratory or practicum hours by the due date agreed upon with the professor and established in the academic calendar.
  - a. The required documents will be sent to the professor through the institutional email, inbox (for online students), if possible, depending on the work, using the following format: STUDENT NAME, COURSE CODE, COURSE SECTION. If the professor is not available, the documents will be



delivered to the Dean of Academic Affairs, Academic Director, or Academic Advisor, who will acknowledge receipt of the documents.

5. The professor will complete the Removal of the Provisional Grade of Incomplete document, including the new grade, if applicable, through DocuSign.
6. The Registrar's Office will make the change to the new grade in the Student Administration System. The office will notify the student about the removal of the incomplete via email.
7. The student will be able to see the course's final grade by accessing the Student Portal.

**Notes:**

If the student fails to comply with the incomplete removal process within the time set, the Registrar's Office will award the provisional grade given by the professor in the incomplete application as the final grade. A second request for incomplete will not be authorized for the same course. If the student disagrees with the final grade received, they may request a review. Refer to the [Grades Changes](#) process. Special situations will be referred to the Office of the Vice Presidency of Academic Affairs with their due evidence for the corresponding evaluation. Students in the Nursing Program will be referred to the Office of the Vice Presidency of Nursing Programs. Students in Technical Programs will be directed to the Office of the Vice Presidency of Academic Affairs of the IBC Technical Division.

## Program Changes

A program change will be considered any change that involves a change in curriculum; either within the same program in which the student is enrolled or in another program. Students interested in a program change must be guided by the professional counselor in the case of on ground students and the academic advisor in the Online Division.

During the interview, the student and the professional counselor in the case of on ground students and the academic advisor in the Online Division will assess the student's academic interests and proceed to complete the Change of Program Form. The designated person in the Academic Affairs Office will approve the program change. Once the program change is approved, it will be submitted to the Registrar's office, to be updated in both the student's academic record and the system. Only two program changes will be permitted. Program changes due to curriculum review will not count as a change for purposes of authorization from the Vice President of Academic Affairs.

Regarding the determination of the Satisfactory Academic Progress (SAP) status of a student who changes programs, who seeks to earn an additional degree, or changes to a different curriculum, either voluntarily or through the re-admission process, will be counted in the determination of academic progress only the credits approved in the previous program that are required in the new program, and the credits attempted and grades earned in the new program.

The grade point average (GPA) required for a program change must meet the GPA of the new program. If the student does not meet the GPA of the new program, the following process will take place: a) For students who did not make academic progress in their first academic term, will be used the GPA for admission to the institution; b) For students with more than one term attempted, must be evaluated by the Program Change Committee composed of the department director and the professional counselor in the case of on ground students and the academic advisor in the Online Division, with the exception of those programs that have specific programmatic accreditation or admission requirements.

## Leave of Absence (LOA)

The student should notify the Registrar's Office in writing of the reasons why they are requesting a leave of absence. The request for leave of absence should be made prior to the start date of the LOA. The student's request will be evaluated and, if approved, the student will be notified in writing. It will be the student's responsibility to enroll in the term immediately following the LOA end date.

## Written Confirmation of Future Attendance

### *Only For Programs Offered in Modules*

A student may not be considered a withdrawal if they temporarily stop attending, but plans to attend a future module that begins later in the same term (payment period). A student may qualify to remain active in term (payment period) if the student meets all of the following criteria:

- The student must be enrolled in a program that offers courses in modules.
- The student must be able to return to a future module in the same term (payment period).
- The student must complete and return the Written Confirmation of Future Attendance Form at the time of the withdrawal and prior to the student being absent from class for 14 consecutive days, even if the student has already registered for subsequent courses.

Written Confirmation of Future Attendance must also be completed before the start date of the future module the student plans to attend. Since eligible students are not considered to have withdrawn from the payment period, a Return of Title IV Funds is not required. However, other regulatory provisions concerning recalculation may apply.

If the student does not return within 14 days from the date they were scheduled to resume attendance, the student will be considered to have withdrawn from the term (payment period).

## Course Repetition Institutional Policy

A student can repeat a course if interested in improving their grade. Repetition of previously failed courses may be counted in the student's enrollment status for Title IV funding purposes. However, repetition of a previously passed course may be counted in the student's enrollment status for Title IV funding purposes only one time. For this purpose, passed course means any completed course with a grade higher than an "F".

For satisfactory academic progress purposes, each time a course is taken counts as an attempt; but only the first time a passing grade is received is counted as completion. Only the highest grade will be used in the calculation of the cumulative grade point average.

## Add/Drop Period Institutional Policy

The Add/Drop Period Policy addresses the process that is to be followed when changes are made to the student's class schedule after the start of the term and no later than the due date published in the academic calendar. Please refer to the [Institutional Refund Policy](#) for details on how NUC University will manage the charges when a student adds and/or drops courses during the add-drop period.

The general established process will be that, the student:

1. Request the Add and Drop form available at the Academic Affairs Office or the Registrar's Office, as appropriate,
2. complete the form in the corresponding parts,
3. visit the academic area to make the requested change or make the requested change electronically,



4. receive appropriate guidance from the Student Accounts Office,
5. submit the form to the Registrar's Office for processing the change in system and,
6. sign and keep a copy of the new class schedule.

## Attendance to Class Institutional Policy

NUC University recognizes that attendance to class is fundamental for the development of the educational and formative process. For this reason, it establishes with emphasis attendance to class. If the student does not comply with class attendance could be a motive to recommend an administrative withdrawal from the institution. In the case, the student loses eligibility to their economic aids due to absences; they will assume total responsibility for payment not allocated by their aids.

The professor has the authority of accepting absences in which the student presents a written excuse; be it because of sickness, death in the family, military service, subpoena from the justice court, subpoena to governmental agencies and any other reason considered justifiable by the professor. In cases where a conflict of interest in the evaluation of a justifiable excuse exists, between the professor and the student, the Academic Affairs authorized personnel will serve as a mediator and issue a final decision regarding the justification of the absence. In the extreme case that an absence cannot be avoided, the Professor of that area of study will assign an experience or assignment of equal characteristics. This way, if a student is unable to attend to one or more meeting of class, they are responsible of realizing a practice or written work in the dates that were stipulated and agreed. Absences recovered through assignments are considered as time spent in class and approved curricular content, if the student replaces and complies with the tasks assigned through replacement.

1. The students will be responsible of recuperating their loss of time in class through assignments that are highly related to the material and development of the skills not acquired by the absences and lack of performance. The student will have the opportunity to recover up to a maximum of ten (10) justified absences.
2. Each professor will hand in the Replacement Plan and its Registry Sheet for each of their students with excused absences to the Counseling Office on a weekly basis for preventive counseling and student contact. Each professor will submit weekly attendance sheets for each of the students with justified absences in the practicum courses to the Registrar's Office for entry of the retakes into the system. Then, the professor will keep custody of the original document (plan) until the end of the session and it will be delivered to the Office of Academic Affairs.
3. At the moment of the final evaluation of the course, the students with justifiable absences that have completed their replacement plan, only the attendance class grade will be affected and not other criteria and/or evaluation indicators included in the final calculation of the grade of the course. This only applies to grade Practicum courses.
4. In cases where the student does not have any reasonable justification for the absences they will not be able to claim that a replacement plan be handed to them.
5. Those students with justifiable excuses, who got a Replacement Plan and did not comply with it, they will not be able to request plans and/or additional alternatives to recover class time and curricular contents.
6. For Armed Forces member enrolled, including reserve components and National Guard members, faculty should accommodate short absences for such services in the Armed Forces.

*The Attendance to Class Policy* will be part of the introduction to each class and/or assignment, the Professor will have the responsibility of discussing with the students the content, scope, and conditions of the policy. Additionally, they will notify the student previously about the criteria and/or indicators of the course evaluation, attendance grade calculation (practicum courses) and final grade.

## Consecutive Absences and Administrative Leave

When a student is absent two (2) consecutive days from one or more of their courses, their professors will notify and refer to the Retention Office personnel or Retention and Induction Advisor. In addition, they will document in the institution's official report their preventive contact efforts with the purpose of sharing information that will help the service offices to make quick and effective interventions. Communication will be established with the student by telephone, institutional e-mail or letter and the student will be cited in person to the location they are enrolled, or in a virtual form. If the retention personnel identifies risk situations of academic, social, emotional, among others, the student will be referred to the Counseling Office. If the student does not respond or does not attend the appointment, a partial or total administrative withdrawal will be processed, as applicable.

If a student is absent for fourteen (14) consecutive days (including Saturdays, Sundays and holidays), it will be considered as an unauthorized abandonment to training and immediately the Registrar's Office will process a partial or total administrative withdrawal.

Students will not be admitted to the classroom if the student is in withdrawal status from the course, has not completed the re-entry process, and does not appear properly enrolled/registered in the course.

Any enrolled member of the Armed Forces, including members of the Reserve and National Guard, will be readmitted if such member is temporarily unavailable or must suspend enrollment due to serving in the Armed Forces.

## Student Waiting Time when Professor is Absent

Students are obligated to wait for professors in the classroom for 15 minutes for each class hour (1) and if the class has a two (2) hour duration, then students must wait for 30 minutes.

## Graduation Requirements

Students are recommended for graduation under the rules and regulations in the official catalog at the time the student entered or was readmitted to the Institution whichever date is later. A student may apply for graduation at the time he has completed 90 percent of the courses required. The student should meet the minimum grade point average and other requirements as indicated in the **Graduation Requirements Tables**, upon completing the total number of required credits for requesting graduation. Additionally, the student must have satisfied all outstanding debt with the institution in order to graduate.

A graduation application must be completed and submitted to Registrar's Office before the deadline established in the academic calendar. This application will be effective until the next scheduled graduation ceremony held every year. The Registrar will evaluate every application for graduation to determine if the student has completed all graduation requirements. A graduation certification is available upon request. Students, who graduate with two different programs, must complete a separate application for each program and will receive two diplomas. These graduation requirements apply to any Armed Forces member enrolled, including reserve components and National Guard members.

### ***Requirements for the Baccalaureate Certificate Programs***

For the Post Baccalaureate Certificate programs there will be no graduation ceremony. When the student completes the program satisfactorily, the student will receive a Professional Certificate.

The following is required:

1. GPA of at least 3.0
2. All courses should be approved with a minimum grade of B.

## Graduation Requirements Tables

### ***DIPLOMA & UNDERGRADUATE PROGRAMS***

<b>Grade Level</b>	<b>Minimum grade point average for graduation</b>	<b>Minimum grade needed to approve courses</b>
All Diploma Programs	GPA 2.00	
Associate's Degree in Emergency Medical Technician-Paramedic	GPA 2.00	All core courses identified in the catalog and all major courses must be passed with at least a "C" grade.
Associate's Degree in Gastronomy and Culinary Management	GPA 2.00	All core courses identified in the catalog and all major courses must be passed with at least a "C" grade.
Associate's Degree in Applied Sciences in Clinical Sonography	GPA 2.00	All general education and core courses identified in the catalog and all major courses must be passed with at least a "C" grade.
Associate's Degree in Applied Sciences in Radiology Technology	GPA 2.00	All general education and core courses identified in the catalog and all major courses must be passed with at least a "C" grade.
Associate's Degree in Applied Sciences in Cardiorespiratory Care	GPA 2.00	All general education and core courses identified in the catalog and all major courses must be passed with at least a "C" grade.
Associate's Degree in Optical Sciences	GPA 2.00	All general education courses identified in the catalog and all core and major courses must be approved with a minimum grade of "C", with the exception of practicum courses that must be approved with a minimum grade of "B".
Associate's Degree in Pharmacy Technician	GPA 2.00	All general education and core courses identified in the catalog and all major courses must be passed with at least a "C" grade.
Associate's Degree in Physical Therapist Assistant	GPA 2.00	All general education, core courses and all major courses must be passed with at least a "C" grade, except for the clinical practices that must be passed with at least "B" grade.
Associate's Degree in Nursing	GPA 2.25	All courses should be approved with a minimum grade of C.
Bachelor's Degree in Diagnostic Imaging, concentration in CT and MRI	GPA 2.00	All general education courses identified in the catalog and all core and major courses must be approved with a minimum grade of "C", with the exception of practicum courses that must be approved with a minimum grade of "B".
Bachelor's Degree in Diagnostic Medical Sonography with a Concentration in Cardiovascular Technology	GPA 2.00	All general education courses identified in the catalog and all core and major courses must be approved with a minimum grade of "C", with the exception of practicum courses that must be approved with a minimum grade of "B".
Bachelor's Degree in Science in Nursing	GPA 2.50	All courses should be approved with a minimum grade of C.
Bachelor's Degree in Science in Nursing (RN to BSN)	GPA 2.50	All courses should be approved with a minimum grade of C.
Bachelor's Degree in Science in Psychology	GPA 2.50	All courses should be approved with at least a "C" grade, except for the Capstone and elective courses at graduate level that must be passed with at least "B" grade.

**ALL OTHER UNDERGRADUATE PROGRAMS**

<b>Grade Level</b>	<b>Minimum grade point average for graduation</b>	<b>Minimum grade needed to approve courses</b>
All other Associate's Degree Programs	GPA 2.00	All major courses, and those general education and core courses identified in the catalog should be approved with a minimum grade of C.
All other Bachelor's Degree Programs	GPA 2.00	All major courses, and those general education and core courses identified in the catalog should be approved with a minimum grade of C.

**MASTER'S DEGREE PROGRAMS**

<b>Grade Level</b>	<b>Minimum grade point average for graduation</b>	<b>Minimum grade needed to approve courses</b>
All Master's Degrees in Business Administration	GPA 3.00	All courses should be approved with a minimum grade of B.
All Master's Degrees in Education	GPA 3.00	All courses should be approved with a minimum grade of B.
Master's Degree in Information Technology	GPA 3.00	All courses should be approved with a minimum grade of B.
All Master's Degrees in Science in Nursing	GPA 3.00	All courses should be approved with a minimum grade of B.
Master's Degree in Industrial Organizational Psychology	GPA 3.00	All courses should be approved with a minimum grade of B, and practicum courses with a "P" (Pass) grade.

**DOCTORAL DEGREE PROGRAM**

<b>Grade Level</b>	<b>Minimum grade point average for graduation</b>	<b>Minimum grade needed to approve courses</b>
Doctorate in Business Administration with Specialty in Strategic Management	GPA 3.00	<ol style="list-style-type: none"> <li>1. All courses must be approved with a minimum grade of "B" or Pass (P).</li> <li>2. Approve the doctoral dissertation defense.</li> <li>3. The student must fulfill the requirements for the degree within a term of eight (8) years.</li> <li>4. The Doctoral Committee may recommend an extension of this term for no more than two (2) years to the pertinent authorities in exceptional meritorious cases</li> </ol>

*For purposes of Title IV recipients, the definition of a passed course means any grade higher than an "F". Please refer to the Financial Aid Office for further information.*

## Graduation Ceremony

The graduation ceremony will be held on a yearly basis. Students who have completed the requirements for graduation for the Institution's programs are eligible to participate in this ceremony. Post Baccalaureate Certificate programs do not participate from the graduation ceremony.

Students whose accounts are not current or have an outstanding debt with the institution, will not be granted a graduation permit to attend the graduation ceremony.

## Graduation with Honors

In recognition of high achievement, honors will be awarded as follows:

### **Academic Excellence Distinction:** 4.00 points

Graduates with Academic Excellence distinction will receive an honor cord for the graduation ceremony.

### **Graduate & Undergraduate Programs:**

3.95 - 4.00 points - Summa Cum Laude

3.71 - 3.94 points - Magna Cum Laude

3.50 - 3.70 points - Cum Laude

### **Diploma Programs:**

3.95 - 4.00 points - High Honor

3.71 - 3.94 points - Honor

3.50 - 3.70 points - Honorable Mention

Graduates will receive a distinction sash with the honor earned.

Graduated students must claim their diplomas in the Registrar's Office no later than one year after the graduation. The Institution will not be responsible for unclaimed diplomas after said period.

# General Academic Regulations

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## Average Length of Programs

Average length of time required to complete the programs is as follows:

- Diploma program is from eight months to one year and a half,
- Associate's Degree is from one and a half to two and a half years,
- Bachelor's Degree it is from three to four and a half years,
- Master's Degree is from one to one and a half year,
- Doctorate Degree is from four to six years.

Likewise, this length of program applies to any Armed Forces member enrolled, including reserve components and National Guard members.

## Grade Points and Grade Point Average

Each grade has a grade point value. The grade point average is computed according to the following procedure: write down the grade and number of credits for each course; then multiply the grade point value for each grade by the number of credits of each course. After this, add the number of credits to obtain the total number of credits, add the grade point values to obtain the total grade point value, then divide the total grade point value by the total number of credits. This will provide the grade point average.

<b>Example:</b>	<b>Grade</b>	<b>Point</b>	<b>Value</b>
SPAN 1010	A (4) X	3 CRS.	12
ENGL 1010	B (3) X	3 CRS.	9
BUAD 2050	C (2) X	3 CRS.	6
MATH 1010	D (1) X	3 CRS.	3
HUMA 1010	F (0) X	3 CRS.	0
Totals		15CRS.	30

**Grade Point Value**

$$30 \div 15 = 2.00 = C$$

## Grade Point Average for Graduation

It is calculated using the honor points as defined above, but includes only the required and elective courses of the program of study from which the student is graduating.

## Remedial Courses

The Institution does not offer remedial courses.

## Course Prerequisites

Students are required to take the prerequisites as established in each program of study. Exceptions for the prerequisites are to be approved by the Academic designated personnel.

## Elective Courses

Electives are courses included in the offerings of NUC University at the student's level of study. Any student can select from any of these courses to comply with the electives requirements of their program of study, if necessary. Elective courses must be passed with at least a "C" grade.

## Academic Year

The Institution's Academic Year is divided into two terms (semesters of approximately four (4) months each). Each academic term may have modules of eight (8) or sixteen (16) weeks. The academic calendar is published every start of an academic term on the webpages. .

## Class Schedule

The Institution's academic programs are offered during daily (morning and evening) sessions. Class schedule may vary by locations, levels and study modalities.

## Credit Hours

For credit hour diploma programs subject to Clock-hour to credit-hour conversion the U.S. Department of Education definition of "clock-to-credit hour conversion" is; *a semester/trimester hour must include at least 30 clock hours of instruction.*

For all undergraduate and graduate programs, the institution defines a credit hour as; one lecture credit is equivalent to 15 lecture contact hours and 30 hours of out-of-class work. One laboratory credit is equivalent to 30 contact hours. Practicum hours may vary depending on the field and Examination Boards, if applicable, but one credit practicum is equivalent to not less than 45 hours per term.

## Out-of-Class Work

As required by federal regulation, NUC University's academic programs (undergraduate and graduate) seek to combine the direct faculty instruction (hour of classroom) with out-of-class activities and assignments. The hours of out-of-class activities and assignments will vary depending on the amount of lecture credit hours of each course.

One (1) unit of a semester lecture credit is the equivalent to, at a minimum of one (1) hour of direct faculty instruction and two (2) hours of out of class work during sixteen (16) weeks academic semester.

For details on credit or out-of-class work, please refer to Definition of a Credit Hour for Title IV Purposes.

## Academic Load

A program of study is complete when students approve the courses indicated by their program of study. In other words, twelve (12) credits per academic term for diploma and undergraduate programs is considered a full academic load; for graduate programs six (6) credits per academic term is considered a full academic load.

Students who wish to increase their academic load per academic term must complete and submit the program changes form, which must be approved by the Academic designated personnel.

## Advanced Placement

Students who have successfully taken one or more of the Advanced Placement Tests of the College Entrance Examination Board may ask for course equivalency. Scores of 3 or more are required for such action. The decision to grant credit for the Advanced Placement Test is based on test equivalency to the content of courses in NUC University. In order for more than one level to be considered by course material, a score of 4 or 5 will be required. Advanced placement or credit action is only taken if the student has specifically requested such consideration and has submitted official score reports from the College Board. No grades are assigned to courses credited.



SCORE	COURSE
3	ENGL 1010 MATH 1010 SPAN 1010
4 or 5	ENGL 1010-1020 MATH 1010 SPAN 1010-1020

## National Exams for College Credit

Students earning satisfactory scores on CLEP\*, DSST or ECE exams may be awarded credit hours towards a degree program at NUC University. The Registrar's office will determine eligible examinations and the potential number of credits possible for each examination. For more information on exams, how to order study guides, and to find a testing center near you, please visit:

- CLEP <http://clep.collegeboard.org/>
  - DSST <http://www.getcollegecredit.com>
  - ECE <http://www.excelsior.edu/exam-list#schools>
- \*CLEP, DSST and ECE are approved by the American Council on Education (ACE).  
<http://www.acenet.edu/news-room/Pages/National-Exams-for-College-Credit.aspx>

## Shared Courses at NUC University

### *Other Campuses or Online Division*

Students may complete a portion of their program of study at another NUC University location. This applies to all levels of academic programs and modes of study.

Any student enrolled at a particular location who is interested in taking courses at another NUC University location may do so without the need for a formal transfer. This alternative will also be offered to students who, due to some special circumstances, do not have classes available at their location during an academic term. To take on-ground courses at a location other than the one where the student is enrolled, the student must coordinate the request with the Dean/Academic Director, who in turn will manage the approval with the Dean/Academic Director of the receiving location.

To take an online course at another location, a formal request is not required, as long as the number of online courses established in the next section is not exceeded.

Shared courses may vary by program, location, or Online Division, and are subject to availability, accrediting agency requirements, and/or institutional policies. This option applies to all degree levels and may be offered to students as an alternative when they do not have courses available at their location during an academic term. Contact the Office of Academic Affairs for appropriate academic coordination.

### *Online Course Limits*

Students enrolled in on-ground programs in Puerto Rico can take less than 50% of their courses online, with the exception of the Master's in Industrial Organizational Psychology, whose limit is 30%. Students enrolled in approved fully online programs may take 100% of their courses online at their location or at different locations.

## University Environment Seminar

The University Environment Seminar course (SEMI 1001) is not transferable, except for those that have been enrolled and approved at NUC University as of November 2021 or later. Course SEMI 1001 must be approved with at minimum grade of "C".



## **Transition to University and Professional Life**

The Transition to University and Professional Life course (SEMI 1010) is not transferable, except for the SEMI 1001 course that has been enrolled and approved at NUC University as of November 2021 or later. Course SEMI 1010 must be approved with at minimum grade of "C".

## **Course Elimination and other Changes**

The Institution reserves the right to eliminate courses, consolidate sessions, change schedules and professors and make changes to the Academic Calendar according to the institution's circumstances or needs.

## **Explanation of Course Numbering System**

The prefix of a course designated in the program outline for each program of study stands for the type of course. Courses are designated with a four (4) digit numerical code.

# Auxiliary Enterprises

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## Extended Laboratories of Specialized Beauty, Health and Culinary Arts Schools

The schools of Beauty, Health and Culinary Arts at NUC University, have integrated in their educational model the inclusion of extended laboratories where students can demonstrate the proficiency of modern techniques and professional competencies acquired through the academic programs, in a real scenario such as the beauty salon, massage cabin and cafeterias. Leaders and faculty of the specialized schools manage these auxiliary enterprises. These integrate specific courses where the **student must complete hours, tasks and direct services to the public (community) under the supervision and evaluation of the faculty for the achievement of course grades and meeting academic program graduation requirements.**

The educational purpose of the extended laboratories or auxiliary enterprises is to provide the student the opportunity to put in place knowledge, specialized techniques, develop interpersonal skills and acquire experience in the operation and management of an establishment in the beauty, health or gastronomy industry. This immersion experience has a purpose in the students' transition process from study to the work scenario.

The academic programs with aligned courses where students are required to have academic integration in extended labs are the following:

### **School of Culinary Arts:**

1. Associate Degree in Gastronomy and Culinary Management
2. Culinary Arts
3. International Pastry and Baking
4. Mixology/Bartending

### **Beauty School:**

1. Advanced Hairstyling and Design
2. Barbering and Hairstyling
3. Cosmetology
4. Esthetics
5. Master in Barbering
6. Nail Technology

### **School of Health**

1. Professional Massage Therapist

The courses where students have to integrate in extended laboratories are identified in special notes published with curriculum outlines in the catalog. In addition, the contents, assignments, tasks and evaluations of the direct services that students will offer under the supervision of the faculty are published in the course descriptions and study guides.

# Distance Education

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NUC University recognizes students have varied personal and professional responsibilities in addition to their obligations as students, and as a consequence, many elects to complete a degree through distance learning. NUC's Online Division provides academic flexibility and diversity to meet the needs of students with varied learning styles. Learning combines individual study and engagement with other students in a structured learning environment. Therefore, NUC expects that students meet their academic obligations with a high level of responsibility and timeliness, while on the other hand, expects faculty to maintain flexibility to meet student needs.

Online courses will, at a minimum, have weekly activities to monitor student participation. Students are primarily responsible for class attendance and are expected to complete course-required activities each week by the required deadline. Students are encouraged to review the course syllabus for details of required activities that constitute active participation. Failure to meet attendance expectations may result in an administrative withdrawal.

NUC University has a wide academic offer where the main methodology of study is on-ground education and integrates the online modality. In both modalities of study, the student is guaranteed equal content, quality in teaching and the provision of administrative services that overcome geographical barriers and facilitate communication. To this end, direct and personal service and technology are adequately used for the development of new modalities in the teaching and learning process.

## Support Staff

- Coordinator of Distance Education
- Administrator LMS
- Counseling
- Retention
- Compliance and Regulations
- Information Technology Technicians
- Registrar
- Virtual Library

## Validation of Identity in Distance Education Courses

Students enrolled in online courses will be required to enter the modules (courses) weekly to participate in learning activities that will include: online readings, demonstrations, chat discussion, collaborative learning, multimedia presentation, online text presentation, exercises, research, case study, observation and problem-solving. For students to register for attendance, they must access the courses and complete the assignments and/or work assigned on the determined dates.

To ensure access security, NUC University assigns students a username and password. These credentials are unique to the assigned students and cannot be duplicated.

Regarding information technology (IT) security and identity protection, the student's Social Security number does not appear, is not given, or is published in full at any time or during transactions or services offered by CANVAS.

## Attendance Policy for Online Students

To comply with state and federal regulations, NUC University must maintain accurate course attendance records. In this aspect, online courses are no different from traditional on-ground courses. However, attendance is managed differently from on-ground mode. The student's attendance in the online courses is defined as active participation in the course. Students are primarily responsible for the class, and attendance is expected to complete the assignments required in each course by the deadline. We encourage students to revise the course syllabus to know in detail the necessary activities that constitute active participation.

Failure to meet attendance can lead to administrative withdrawal. Participation is captured and recorded as the last date of attendance (LDA) in the system and student's file. Student participation will be updated consecutively as students perform academic related activities. This provides a dynamic update to the LDA in the student's academic record for monitoring their participation throughout the term. In case a student starts the course and requests a withdrawal or a withdrawal is necessary, the LDA will be used as the official date of withdrawal.

Students must communicate to the instructor an absence in advance. It is the discretion of the instructor to accept assignments outside the deadline or allow make up work due to an absence. To this end, each course syllabus clearly outlines expectations about student's notification of absence to instructors, class participation and acceptance of the work out of date.

Students who want to drop one or all courses after the end of the add/drop period (first week of term), should refer to the University's withdrawal policies and to their Student Services Advisor, Counseling Office or Academic Department for options. Students who stop attending class will receive an earned letter grade of W or A-F at the end of the term, determined by the student's last date of class attendance.

## Library Resources and Services

The library resources will be online through the institutional web page, Library web page, including dictionaries, encyclopedias, newspapers, e-books, databases, translators, grammar and education resource area. Online and on ground students, have the same access to all learning resources through institutional website <https://libguides.crev.edugroup.com/virtual/nuc>.

## Service for Online Students

In some instances, students participating in online courses have scheduled on-ground courses in the institution as well. Therefore, these are included in the students service support as offered to the traditional on-ground student population.

## Fees for Online Students

Please refer to the [Tuition and Fees](#) section.

## Academic Calendar

Please refer to the [Academic Calendars](#).

## Distance Education Technical Requirements Information

NUC University uses Canvas Learning Management System Platform as the technological tool to support its online courses. Canvas and its hosting infrastructure are designed for maximum compatibility and minimal requirements.

### Minimum Technical Requirements to Use Canvas

#### **Institutional E-mail Account**

This institutional email account is being used to log in using the Canvas Platform, student portal, email account, contact professors, and classmates and receive official notifications from the Institution. (Do not mix it up with your personal e-mail.)

#### **Operating Systems**

- Windows 10 or later
- Mac OSX 10.12 or later

#### **Mobile Operating System Native App Support**

- iOS 14 or later (versions vary by device)
- Android 8.0 or later

#### **Computer Speed, Processor and Peripherals**

- Use a computer 5 years old or newer when possible
- 8GB of RAM minimum (16GB recommended)
- Intel Core i5 processor (10th gen or higher) / AMD Ryzen 3 or higher
- Audio Card (integrated)
- Webcam
- Headset for virtual class sessions and develop audio presentations

#### **Internet Speed**

- Minimum 100MB
- Wired connection preferable. Wireless connections are sensitive to weather changes; thus, they are unstable and may cause trouble when you are working or taking a test in the platform.

#### **Browser Compatibility (latest version)**

- Chrome
- Firefox
- Microsoft Edge
- Safari

#### **Mobile Browsers Compatibility**

##### ✓ **iOS**

- Safari (default browser with limited Canvas support)
- Chrome

##### ✓ **Android**

- Chrome (default browser with limited Canvas support)
- Microsoft Edge
- Firefox

#### **Screen Reader (Accessibility Feature)**

- Macintosh: VoiceOver (latest version for Safari and Chrome)
- PC: JAWS (latest version for Microsoft Edge and Chrome)
- PC: NVDA (latest version for Firefox and Chrome)
- Canvas does not provide full screen reader support in Chrome; for best accessibility, use Safari (Mac) or Firefox (PC).

**Plugins**

- Windows Users: Microsoft Office 365
- MAC Users: Microsoft Office 365
- Open Office (Microsoft Office Alternative) Freeware

**Required Knowledge**

- Ability to manage, send and receive e-mails
- Ability to open, close, create and save files in the following formats: Word (DOCX), Plain text (TXT), Rich text format (RTF), Power Point (PPTX), Excel (XLSX) and PDF.
- Basic Computer Skills

***Minimum technical requirements for the Network and Information Technology programs and, course CYCR 4010 of the Bachelor's Degree in Criminal Justice with major in Cyber Crimes program***

- CPU Intel Core i3 minimum or AMD equivalent

**Operating Systems**

- Windows 10 or later (recommended)
- Mac OSX 10.12 or later
- Compatibility with native applications of mobile operating systems
- iOS 14 or later

**Computer Speed, Processor and Peripherals**

- Intel Core i5 (10<sup>a</sup> gen or higher) / AMD Ryzen 7 or higher
- 8GB de RAM (16GB recommended\*)
- 256GB SSD (512GB recommended\*)

**Internet Speed**

- Minimum 100 Mbps (500 Mbps or higher recommended for video conferencing, multimedia content, and simulators\*).

**\*For an improved learning experience.**

# Educational Resources Centers and Study Rooms

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The Educational Resources Centers and Study Rooms are a fundamental component of our Institution. The centers contain an organized collection of different resources and materials, managed by qualified personnel who support the teaching and learning process. The centers gather orders and circulate bibliographical materials and the didactic and informational resources available to the Institution to foster studying, reading, researching, and support the learning of the academic community.

The centers have the following areas: study hall, Reserve and Reference Collection, periodicals, computers with Internet access, and Microsoft Office applications.

## Study Halls

Our study halls provide students with a space to study and resources to complement the learning acquired in the academic programs.

## Access to the Information Policy

The Educational Resources Centers and Study Rooms are a resource hub that aims to provide services to the institution's students enrolled in all programs, administrative staff, and faculty members.

- **Resources Loan:** The student requesting borrowed library materials must present identification and fill out a loan application request; books in the circulating collection are loan from one day to two weeks. The faculty may borrow books during an academic term.
- **Reference services:** The center's personnel assist the students to find information they need to do an assignment. At the beginning of each term, an orientation on the resources and services available in the centers is offered to new students. The faculty members that give assignments to a group of students should coordinate with the library or study hall staff.
- **Photocopying of printed material:** Any student or faculty member that uses the library or study hall may photocopy the materials needed in the machines provided as long as they carry out the standards set in the Copyright Act and pay for the service (in the case of students). The faculty members have access to the photocopy machine at no cost. Students and Faculty must ensure compliance with copyright laws before photocopying materials. The U.S. Copyright Act, Title 17 controls the photocopy or other reproduction of copyrighted materials.
- **Computer Laboratory:** Students have access to the use of computers and its software to perform assigned jobs, navigate the Internet and carry out other activities of personal interest. Each student has a maximum of half an hour to use the computer in case there are others requesting the service. Students must sign the computers usage log and provide the time and academic program in which they are enrolled.
- **Finding information online or accessing the Internet:** Is available for use by students and faculty members in the properly identified computers.
- **Loan of audiovisual equipment:** Audiovisual equipment must be separated with a week in advance. Faculty members or users who needs the equipment to conduct presentations, reports, classes, etc.; should complete a loan application form indicating date, time and place where the equipment will be used. The person requesting the equipment is responsible for returning it to the center or study room and ensures the proper use and conservation.

In addition to providing the users with library instruction, there is the information literacy program, which allows students to seek on their own the information needed throughout their lives. To improve the services for the students, the centers make if necessary inter-library loans of library materials throughout all campuses. Library services are available from 7:30 a.m. to 9:00 p.m. Itineraries may vary among campuses depending on the student's needs. Students also have access to the Virtual Library, which includes information resources, eBooks, study guides, periodicals, videos, writing style, and tutorials. Users can connect to the Virtual Library from outside through the institution web page. <https://libguides.crev.edugroup.com/virtual/nuc>.

## Academic Calendars

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For the **Graduate and Undergraduate** academic calendars please refer to our online Web Page at:

<https://www.nuc.edu/calendario-academico/>

For the **Online Division** academic calendars please refer to our online Web Page at:

<https://online.nuc.edu/en/about-us/academic-calendar/>

For the **Technical Division** academic calendar, please visit the following link:

<https://tecnicos.nuc.edu/calendario-academico/>



# Institutional Information for Veteran Students

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**Education benefits for Veterans, service members, and their qualified family members & Active Duty service members and qualified family members via the Department of Defense (DoD)**

## Approval

The school is approved by the Puerto Rico State Approving Agency to provide academic training to the students under the various GI Bill® programs.

The Puerto Rico Approving Agency of Veterans has approved NUC University for veterans' education training. Veteran's Education Benefits are provided by the Department of Veterans Affairs, a third-party provider. Students interested in Veterans' Educational Benefits should contact the campus-certifying official or the Registrar's Office.

## Admission

Any veteran student and recipient must submit admissions documents before the 1st day of classes.

Before enrolling, students using VA or DoD benefits must consult with their Education Service Officer (ESO), military counselor, or service representative.

They should also consult with the Certifying Official and confirm that the program is approved for Veterans' training benefits.

## Estimated tuition, fees, room, and board rates, books, and other cost materials

Please refer to the following websites:

[Costos de Matrícula - NUC University](#)

[Ayudas Financieras - NUC University](#)

[Guía del estudiante Asistencia Económica \(nuc.edu\)](#)

<https://nces.ed.gov/collegenavigator/?q=nuc+university&s=all&id=242972#expenses>

## Evaluation of Transfer or prior credit/hours

School Certifying Officials (SCOs) must request an evaluation of prior credit assessment, including Joint Service Transcripts (JST) from training courses received by the Armed Forces for students using VA or DoD benefits for new enrollment, transfer students, or program changes.

For further information, please refer to the Institutional Catalog under the [Transfer Credits](#).

## Satisfactory Academic Progress

NUC University defines Satisfactory Academic Progress as the required measurement of students' academic progress toward completing their educational program. Satisfactory Academic Progress (SAP) is evaluated with two standards: qualitative (GPA) and quantitative (Credits Successfully Completed).

Students must maintain the required GPA and pass the necessary credits to meet SAP's qualitative and quantitative components (Satisfactory Academic Progress).

Please refer to the Institutional Catalog under the [Standards of Satisfactory Academic Progress \(SAP\)](#) section for further information.

The Registrar or Certifying Official will maintain a copy of each student's Satisfactory Academic Progress (SAP) report.

## **Minimum Satisfactory Grade Level**

Please refer to the Institutional Catalog under [Graduation Requirements](#) and the [Graduation Requirement table](#).

## **Class Attendance**

Students are expected to attend all the courses they are officially enrolled in. Work missed by absences is the responsibility of the student. Whether for a grade or not, this work can be made up through consultation with the course professor. For Armed Forces members enrolled, including reserve components and National Guard members' faculty should accommodate short absences for such services in the Armed Forces.

For further information, please refer to the Institutional Catalog under [Class Attendance](#).

## **Administrative and Academic Regulations**

Students are expected to conduct themselves in a nature and manner that reflects the values and integral development that NUC University has as its mission for its students. Students must abide by the rules and regulations in the Student's Manual and the Institutional Catalog. The Institution may dismiss any student in case of violation of the rules of conduct outlined in the Student's Handbook or the Institutional Catalog. The Institution will keep a record of disciplinary actions taken. This record will be kept separately from the student's academic record

For further information, please refer to the Institutional Catalog under Administrative and Academic Regulations and [Rules of Conduct](#). Also refer to the Student's Handbook.

## **Chapters 31 and 33 VA students**

As part of the amended United State Code, Veterans Benefits and Transition Act of 2018, section 3679 of title 38, NUC University ensures that any Covered Individual eligible to receive educational assistance through VA educational benefits under chapter 31, Vocational Rehabilitation and Employment, or chapter 33, Post-9/11 GI Bill® benefits, will not be imposed any penalty, including the assessment of late fees, the access to course registration or attendance of classes, or that the individual be required to borrow additional funds on a covered individual due to the individual's inability to pay the balance before the scheduled disbursement of funds from the VA directly to the institution.

NUC University will require payment from the covered individual for any amount that is the difference between the student's financial obligation and the VA education benefit scheduled to disburse directly to the institution. This Institution may impose a late fee or place a financial hold for these additional payments not covered by their VA benefit if they remain outstanding.

The student must submit a “certificate of eligibility” or any document from the VA that verifies a student’s eligibility for chapters 31 or 33.

## **Withdrawal Policy**

A student is considered to have withdrawn from a term (payment period) if the student does not complete all the days in the term that the student was scheduled to complete. Students considering withdrawing are encouraged to meet with the Academic Advisor and/or the Retention Officer before leaving school. Students must also review the Title IV and Institutional Refund Policies to understand how withdrawals could affect their accounts, amounts of Title IV received, and obligations to repay federal loans.

Please refer to the Institutional’s catalog under NUC University [Withdrawal Policy](#) for further information.

All credit changes must be reported for VA students, generally within 30 days of the enrollment change § 38 CFR 21.4203.

## **Graduation Requirements**

Students are recommended for graduation under the rules and regulations in the official catalog at the time the student entered or was readmitted to the Institution whichever date is later. A student may apply for graduation after completing 90 percent of the required courses. The student should meet the minimum grade point average and other requirements as indicated in the Graduation Requirements Tables upon completing the total number of required credits for requesting graduation. Additionally, the student must have satisfied all outstanding debt with the institution to graduate.

For further information, please refer to the Institutional’s catalog under [Graduation Requirements](#) and the [Graduation Requirement table](#).

*The school is approved by the Puerto Rico State Approving Agency to provide academic training to the students under the various GI Bill® programs.*

## ***GENERAL POLICIES AND CONSUMER INFORMATION***

# Institutional General Policies and Consumer Information

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## Special Facilities and Services Available to Students with Disabilities

NUC University is committed to providing services to students with disabilities. This has resulted in positive attitudes on behalf of faculty, administrative and support personnel. The facilities are essentially barrier free and include ramps, elevators (not all campuses) and handicapped accessible bathrooms. In terms of services, NUC University supports students who self-identify a disability and provide documentation of their disability from an appropriate source. If students have disabilities that require special accommodations in terms of learning, mobility or class access, it is incumbent upon the student to contact the Student Services Office and provide this information.

## Visitors

The presence of visitors is limited to the administrative areas. In order to access any other area, a representative of the institution must accompany them. Children's access to classrooms is not permitted. Their presence is limited to the administrative area, while accompanied by an adult, for their own safety.

## Educational Resources

Educational resources are those academic support services provided by the Institution to students, faculty, administration and alumni. These resources consist of laboratories and the Educational Resources Centers with access to technology.

## Classrooms and Labs

The institution has the classrooms and labs required by the academic programs. The labs provide instructional equipment and materials that support the achievement of each program's educational objectives.

## Uniforms

In the case of programs required the use of the institutional uniform, it is the responsibility of each student to wear the uniform designated for the program during classes with lab and externship components. For academic programs not assigned an institutional uniform, students must meet the student standard of professional appearance and image.

## Publications

The Financial Aid Student Guide and the Student Handbook supplement this Catalog. The purpose of this publication is to increase the information offered to students in relation to the norms, procedures and policies that are in force within our Institution.

## Posters or Promotions

The placement or distribution of announcements must have the locations authorities' approval. Placement of announcements or distribution of promotional materials is not permitted without previous authorization. In addition, it is prohibited to promote particular interests of students or entities.

## Housing and Transportation

However, it does provide transportation in some locations and established routes. Not all locations have this service available, please check with your location for more information.

## Prevention of Cyberbullying Policy

In keeping with the prevention of cyberbullying, defined as bullying through electronic information (text messages, websites, mobile, social media, email, instant messaging, blogs, etc...), NUC University recognizes the right of students to their personal safety; free from harassment and intimidation by technology (cyberbullying); to study in a healthy environment; for their privacy and personal dignity; to an education that enable them to pursue higher education or provide them access into the labor market within and outside Puerto Rico, and to organize and participate in the activities of their study centers.

The Institution will not allow any student to be exposed to treatment that will cause emotional distress and concern. The institution will not allow threats, sexual connotations, pejorative labels written in different electronic media regarding false and defamatory information of any student.

If a student understands that is being cyber bullied, they have the right to file a complaint with the Counselors Office. The counselor will provide immediate intervention to the concerned student and will guide through the process of filing a complaint against the offending student.

## Notice of Non Discrimination

### General

NUC University and NUC University – IBC Technical Division located in Puerto Rico (“NUC-PR”) seek to comply with all federal, state, and local laws, regulations, and ordinances prohibiting discrimination in private post-secondary education institutions.

NUC-PR does not discriminate against any employee, applicant for employment, student, or applicant for admission on the basis of actual or perceived age (40 years and over in the employment context), color, disability (physical or mental), ethnicity, gender identity, genetic information (including family medical history), marital status, national origin (including ancestry), pregnancy or related conditions, race, religion, sex, or sexual orientation.

### Title IX

NUC-PR does not discriminate on the basis of sex and prohibits sex discrimination in any education program or activity that it operates, as required by Title IX and its regulations, including in admission and employment.

Inquiries about Title IX may be referred to NUC’s Title IX Coordinators, the U.S. Department of Education’s Office for Civil Rights, or both. NUC’s Title IX Coordinator for its NUC University and NUC University – IBC Technical Division campuses is Ms. Yamaira Serrano, 61 Ponce de León Ave., San Juan, PR 00917, yserrano1@nuc.edu, and 787-982-3000. Contact information for OCR is available here: <https://ocrcas.ed.gov/contact-ocr>.

NUC’s nondiscrimination policy and grievance procedures are available by contacting the Title IX Coordinator.

To report information about conduct that may constitute sex discrimination or make a complaint of sex discrimination under Title IX, please contact the Title IX Coordinator.

## **Law #25 – School Vaccination Policy**

The governance of NUC University strongly supports the efforts of the Department of Health of the Government of Puerto Rico to immunize or vaccinate all students duly enrolled in educational institutions in Puerto Rico. Our strong belief in the overall health of our students fosters compliance with School vaccination Law #25. Any student under the age of twenty one (21) must present the Vaccination Certificate, PVAC-3 (green document) as evidence of vaccination.

It is the responsibility of the directors and administrators of educational institutions to annually submit a report to the Department of Health in relation to students' compliance with the Vaccination Law #25. Failure to comply with this requirement is a violation of Law #25 which can lead to penalties and sanctions to the authorities of our institution. The Registrar's Office will record the information in the PVAC- 3 document in the electronic record of the Department of Health under the PRIR.salud.gov.pr. In addition, will coordinate with the designated officer of the Department of Health the registration of the PVAC-3 effective December 30th of each school year.

## **Law #40 – Non Smoking Areas**

NUC University complies with the provisions established in Law No. 40 of August 3, 1993, as amended. This law prohibits on all university premises (classrooms, buildings, parking lots, etc.) smoking or engaging in activities of inhaling and releasing tobacco smoke or other substances that are made to burn in cigars, cigarettes, electronic cigarettes, and pipes, and possessing or transporting cigars, cigarettes, electronic cigarettes, and pipes and smoking devices while they are lit. Violators can be fined.

## **Law #56 – Use of Asthma Medication Policy**

In accordance with what is established in Law 56 of 1 February 2006, (Treatment of Students that Suffer from Asthma) and with the purpose of ensuring compliance with the requirements of this law, students may possess and use their asthma medication (i) during their stay in our facilities, (ii) during an activity sponsored by the Institute, (iii) during and under the supervision of the Institution's personnel.

## **Law #85 – Prohibition of Harassment, Intimidation and Bullying Policy**

In accordance with the establishments of Law 85 of August 7, 2017 (Prohibition of School Harassment) and with the purpose of ensuring compliance with the requirements of this law:

NUC University acknowledges the students' right to personal safety, free of harassment, intimidation and bullying;

- to study in a safe environment;
- to their personal intimacy and dignity;
- to promote the formation of student organizations;
- to a fair evaluation of their academic work;
- to the proper guarding of any documents related to their academic history and student life;
- to freely select their job or profession;
- to receive vocational orientation services and other specialized services;
- to an education that allows them to pursue higher education or provides access to the job market in or outside of Puerto Rico;
- to organize and participate in the activities at locations enrolled.

## **Law #109 – Protection of Military Students**

NUC University is in compliance with the requirements established by Law No. 109 of 2003, as amended, which protects the rights of military students. The institution has implemented policies and procedures for the refund of payments or credits for withdrawn courses. In addition, it offers reasonable and priority accommodations to facilitate the continuity of studies in case their military status change.

## **Law #186 – Restrictions in the Use of the Social Security Number Policy**

In accordance with what is established in Law 186 of 1 September 2006 (Restrictions on the Use of the Social Security Number) and to ensure compliance with the requirements of the law, the Institution will not display nor exhibit the Social Security number of any student in a location or object that is visible to the general public with the purpose of identifying him/her, nor will place or publish grade lists or lists of students enrolled in courses or any other lists delivered to professors; nor will include it in student directories nor any similar lists, except for internal confidential use; nor will make it accessible to any person without a need to know or authorized access to this information.

## **Law #250 – Postsecondary Educational Passport of Reasonable Accommodation**

NUC University adjusts the individualized admissions and evaluation process in order to meet the needs of students and candidates with disabilities. The institution seeks to ensure specific reasonable accommodation consonant with the disability of the student or prospect, and once admitted that these can lead to perform successfully yet in accordance with their limitations during their course of study at the institution.

All people with disabilities are entitled under Article 6 of Law No. 250 of 2012, the Postsecondary Educational Passport of Reasonable Accommodation to voluntarily claim an extended admissions process. Students shall be welcomed under the legal principles of the regulations, rules and procedures under this law.

The institution is committed to adapt, modify and properly adjust those that allow a person with disabilities to participate in all aspects; educational activities, curricular and extracurricular, educational settings, recreational, sports, and cultural as part of the formal learning process and perform in the educational environment in an inclusive, accessible and comparable manner.

## **Law #267 – Protection of Students in the Use and Management of Internet**

NUC University ensures the security and well being of our student body in order to prohibit and restrict the use and management of Internet in classrooms/laboratories, libraries and study halls where are available computers for students and faculty; with no access to pornographic material such as videos, photos, texts, audio and any other form of material which undermines the well being of our educational community, regardless of the age of our students and employees.

The Institution has an Information Technology Department which installs, monitors and protects technological devices with the purpose of filtering, limiting and interrupts the access to pornographic and obscene material that results harmful and detrimental to the physical and emotional security and to the development of students and employees. All students and employees will be under the legal principles of the policy, norms and procedures within the law.

NUC University is committed to adapt, modify and adjust appropriately all that allows our student community to respect and recognize the sanction procedure for those who violate the use and management of institutional



and personal computers; prohibiting the access, management and share of pornographic and obscene material that goes against the well being of the students and employees while within the facilities and grounds of our schools.

## **Continuity of Offering Courses According with the Curricular Sequence**

NUC University is committed to the academic development of its students and in providing learning opportunities that trains them to incorporate into the workforce in the maximum time allowed under the Satisfactory Academic Progress Policy.

The Institution is responsible for providing continuity to the programs after the student is admitted to the program. Likewise, keeps each program with an updated course outline, which serves as a guide to the academic community to maintain an effective courses offering. Students who come in as transfer and with validate courses will be oriented to eventually enter the sequence of their program. The Institution takes into consideration the needs of courses as students' progress following the pace of studies stipulated in the sequential and academic offerings. NUC will ensure that students who follow the curriculum sequence and take scheduled courses can complete their program of study in the time regulated by the Satisfactory Academic Progress Policy.

Students will be responsible for taking the courses when scheduled in order to avoid have pending courses when close to completion of their studies. Students will be responsible in keeping control of their study program and assume the consequences of courses withdrawn without a valid reason. However, the institution reserves the right to eliminate course, consolidate sections, make changes in the programs, or request moratorium on study programs when deemed necessary or appropriate according to institutional circumstances. This policy applies to all academic programs offered at the institution.

## **Continuity of the Offering to Students Enrolled in Programs to Be Closed or Placed in Moratorium**

When an academic program is placed on moratorium or termination status, neither new students nor reentries will be permitted to enroll. For active currently enrolled students in these programs, NUC University will ensure that the necessary courses that these students need to complete their programs are offered in accordance with the curricula of these programs. However, if a student withdraws from a course or discontinues studies in the academic program that was placed on a moratorium, NUC University does not guarantee the offer of the course or program.

In the case of inactive students that wish to reenter a program that has either been placed on moratorium status or is planned to be terminated, they will have the option of transferring to another program that is being offered, and request a transfer of credits in accordance with the Transfer of Credit policy of NUC.

## **Institutional Security Policy / Crime Statistical Data (Clery Act)**

NUC University recognized as legitimate institutional interest to facilitate the protection of life and safety by keeping a safe environment for students, employees and visitors. State and federal law requires educational institutions that receive Title IV funds the responsibility of providing protection and security to the members of its academic community. NUC reaffirms commitment to improve and expand security measures and protection in favor of the academic community and all external community that benefits from the services of the institution. Promoting healthy lifestyles prevention and security programs that help improve the quality of life of our community.

This policy aims to promote and maintain a safe working and study environment, risk-free, violence and danger. It also recognizes the right of students, prospects, and academic community in general to be informed about any criminal act occurred on campus and on public property, also data is collected, information is disclosed and the community is kept informed throughout about criminal incidents occurred at NUC University's locations. Anyone who by action or omission violates any state or federal statute shall be subject to disciplinary measures established by the institution or may be civil or criminally prosecuted by the laws that apply.

For the complete Annual Security Report and Crime Statistical Data please visit:

<https://www.nuc.edu/politicas/>.

## **Institutional Policy on the Manufacture, Distribution, Supply, Illegal Use of Controlled Substances and Alcohol Use and Abuse**

The use and abuse of drugs and alcohol is detrimental to human welfare and development. NUC University is aware of the problem it presents to its employees and students, therefore has the commitment to promote a healthy work and study environment, free of the difficulties and limitations caused by the use and abuse of controlled substances and alcohol by the students and the personnel who provide and receive services. It responds to the serious consequences that the use of such substances represents for the service and for the proper execution of the tasks and assignments to be performed by the student, employee or official in question. The presence of controlled substances and alcohol in the workplace and studies can manifest itself in various ways that can directly affect the safety, quality of services, productivity and physical and emotional health of staff and students. As a result of this concern, state and federal legislation has been passed to combat the use and abuse of controlled substances and alcohol.

The Institution adopts an active policy to prevent, by all possible and available means, the manufacture, distribution, supply, possession, and illegal use of these controlled substances in this Institution, as defined in Act No. 4 of June 23, 1971, the Controlled Substances Act of Puerto Rico. The use and abuse of alcohol is also prohibited in harmony with the Drug-Free Schools and Communities Act (Public Law No. 101-226) of December 12, 1989.

For the complete institutional policy, please visit: <https://www.nuc.edu/politicas/>.

## **Institutional Policy and Process Anti-Hazing**

### **Policy Statement**

NUC University is committed to promoting a safe, respectful, and harassment-free educational environment. This policy aims to prevent, detect, and sanction any conduct related to hazing within our academic communities.

The term "hazing" means any intentional, knowing, or reckless act committed by a person (whether individually or in concert with other persons) against another person or persons regardless of the willingness of such other person or persons to participate, that—

1. is committed in the course of an initiation into, an affiliation with, or the maintenance of membership in, a student organization; and
2. causes or creates a risk, above the reasonable risk encountered in the course of participation in the institution of higher education or the organization (such as the physical preparation necessary for participation in an athletic team), of physical or psychological injury including—
  - a. whipping, beating, striking, electronic shocking, placing of a harmful substance on someone's body, or similar activity;

- b. causing, coercing, or otherwise inducing sleep deprivation, exposure to the elements, confinement in a small space, extreme calisthenics, or other similar activity;
- c. causing, coercing, or otherwise inducing another person to consume food, liquid, alcohol, drugs, or other substances;
- d. causing, coercing, or otherwise inducing another person to perform sexual acts;
- e. any activity that places another person in reasonable fear of bodily harm through the use of threatening words or conduct;
- f. any activity against another person that includes a criminal violation of local, State, Tribal, or Federal law; and
- g. any activity that induces, causes, or requires another person to perform a duty or task that involves a criminal violation of local, State, Tribal, or Federal law.

NUC University strictly prohibits all forms of hazing including, but not limited to:

- Direct participation in hazing acts.
- Inciting or forcing others to participate.
- Witnessing and failing to report such acts.
- Concealing or allowing such practices within student groups.

Any violation of this policy may result in severe disciplinary actions including, but not limited to:

- Suspension or expulsion of the offending student.
- Sanctions against the student organization involved, including deactivation.
- Referral to police and judicial authorities.

NUC University encourages all members of the community to report any acts of hazing. Reports may be submitted confidentially through:

- Campus Director of Student Affairs at Puerto Rico Campuses
- Executive Director or their designee at Puerto Rico Technical Divisions and CCU Campuses
- Academic Dean at NUC Online

NUC University provides confidentiality and prohibits retaliation against anyone who, in good faith, reports an act of hazing.

The above excerpts are from the institutional policy, which is summarized here for brevity.

## **Student Right to Know Information Disclosures**

The federal Student Right To Know Act requires that annually (no later than July 1) institutions of postsecondary education prepare and disseminate information about their graduation rates of full-time, first-time in undergraduate programs leading to a certificate, associate's or bachelor's degree. In addition, the institution must also provide information on:

- Graduation rates disaggregated by gender, by each major racial and ethnic subgroup as defined by the Integrated Postsecondary Education Data System (IPEDS), by recipients of a Federal Pell Grant, by recipients of a Federal Direct Loan (other than a Federal Direct Unsubsidized Stafford Loan) who did not receive a Federal Pell Grant, and recipients of neither a Federal Pell Grant nor a Federal Direct Loan (other than a Federal Direct Unsubsidized Stafford Loan),
- Retention rates reported to IPEDS,
- Placement rates and types of employment obtained by graduates, and
- Types of graduate and professional education in which graduates of the institution's four-year degree programs have enrolled.

For the complete disclosure, please visit: <https://www.nuc.edu/politicas/>.

## **Notification of Rights Under FERPA**

The Family Educational Rights and Privacy Act (FERPA) affords eligible students certain rights with respect to their education records. (An “eligible student” under FERPA is a student who is 18 years of age or older or who attends a postsecondary institution at any age.)

For the complete notification, please visit: <https://www.nuc.edu/politicas/>.

***DOCTORAL DEGREE IN BUSINESS ADMINISTRATION  
ACADEMIC PROGRAM***

# Doctorate in Business Administration with Specialty in Strategic Management

## OBJECTIVE

The Doctorate program in Business Administration program with specialty in Strategic Management will prepare students with the necessary professional and research competencies in the business world. Graduates of this program will integrate theoretical foundations from a strategic perspective of modern trends in administrative sciences. Furthermore, they will develop ethical leadership according to global standards of business sustainability, innovation, and change management.

## PROGRAM COMPETENCIES

1. Apply theories and tools of business administration to complex business problems in a critical and creative manner, allowing for decision-making that brings value to the organization.
2. Integrate technology and reliable information resources for the collection and analysis of data that support strategic decision-making and the defense of their research work.
3. Exhibit high-level communication skills, both orally and in writing, expressing their views clearly in complex situations.
4. Apply the scientific methodology of research in their statements and proposals for strategic attention to business problems.
5. Value the ethical and legal principles of strategic leaders in decision-making, as well as the sensitivity leading to the recognition of diversity in an environment free of discriminatory practices in a globalized world.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

30 Credits in Core Courses  
12 Credits in Specialty Courses  
18 Credits in Research/Dissertation Courses  
**60 Total Credits**

## CORE COURSES

DBA 7000	Introduction to Doctoral Studies	3
DBA 7010	Business Economy	3
DBA 7020	Strategic Marketing	3
DBA 7100	Strategic Financial Analysis	3
DBA 7110	Human Resources Strategic Development	3
DBA 7200	Business Innovation Management	3
DBA 7210	Global Strategic Management	3
DBA 7300	Quantitative Methods and Metrics for Decision Making	3
REME 7000	Research Methodology for Businesses	3
STAT 7000	Statistics for Business Research	3
		<b>30</b>

## SPECIALTY COURSES

STRA 8000	Corporate Strategy	3
STRA 8100	Strategic Management	3
STRA 8200	Strategic Organizational Leadership	3
STRA 8300	Information Systems Strategic Management	3
		<b>12</b>

## RESEARCH/DISSERTATION COURSES

RESE 9000	Dissertation Seminar	6
RESE 9100	Dissertation I	6
RESE 9200	Dissertation II	6
		<b>18</b>
<b>TOTAL CREDITS</b>		<b>60</b>

## NOTES:

- All core and specialty courses must be approved with at minimum grade of "B".
- Dissertation courses are approved (P), in progress (IP), or not approved (NP).
- The Doctorate in Business Administration with Specialty in Strategic Management program requires successful completion of all required courses and meeting graduation requirements. Generally, students will need to complete continuation courses. Continuation courses are research/dissertation courses that allow students to continue to work on their dissertation until the doctoral dissertation defense is approved or the maximum time to complete the program is met. Students who take continuation courses will extend the time to complete their program and will incur additional tuition and fees, as published in the catalog.

***DOCTORAL DEGREE IN BUSINESS ADMINISTRATION  
COURSE DESCRIPTIONS***

**DBA 7000: Introduction to Doctoral Studies: 3 credits**

In this course, students will examine the requirements of the Doctorate in Business Administration (DBA), as well as the resources and support available at the doctoral level. They will analyze general aspects of the academic journey in the program by attending a series of lectures. Students will value the importance of doctoral research and the use of the Publication Manual of the American Psychological Association for academic writing and research. Likewise, they will argue about topics related to doctoral research, academic honesty, ethics, and strategies for presenting and publishing research.

**DBA 7010: Business Economy: 3 credits**

In this course, students will analyze economic information on business activities and their environment based on the economic theory of entrepreneurship. They will also prepare statistical and economic reports for decision-making. In addition, Students will support an economic analysis for decision-making regarding the implementation of new strategies and improvements in a business or enterprise.

**DBA 7020: Strategic Marketing: 3 credits**

In this course, students will integrate the strategic planning process into the design of marketing programs and an organization's general mission and vision. They will evaluate the corporate environment in the creation of ethical and socially responsible marketing strategies. Students will justify strategic marketing decisions made by the business leader, such as branding, as well as product, price, place, and promotion strategies.

**DBA 7100: Strategic Financial Analysis: 3 credits**

In this course, students will examine the fundamental principles of corporate finances, and the methods and tools commonly used by financial managers in the business environment. They will determine economic aspects that influence financial decision-making. Students will discuss long- and short-term investment opportunities, capital structure balance, and capital project management.

**DBA 7110: Human Resources Strategic Development: 3 credits**

In this course, students will value key human resources management roles from a strategic perspective. They will examine talent acquisition and development policies and processes. Furthermore, they will evaluate the performance management process. Students will integrate organizational development processes and initiatives into human resources management.

**DBA 7200: Business Innovation Management: 3 credits**

In this course, students will analyze fundamentals and models of creativity and innovation for the design of innovative business strategies. They will examine tools for innovation management, such as the generation of ideas to foster successful business efforts and achieve a competitive advantage at the local and global levels. Likewise, students will apply strategies and tools for the sustainability and success of creative and innovative companies.

**DBA 7210: Global Strategic Management: 3 credits**

In this course, students will analyze the theoretical and practical fundamentals of global strategic management. They will evaluate the creation of value and competitive advantage through the international expansion of companies and the management of the structure, coordination, and control of operations dispersed across borders. Likewise, they will justify the practical application of theoretical assumptions from recent empirical research in identifying real-world business issues and possible lines of investigation.

**DBA 7300: Quantitative Methods and Metrics for Decision Making: 3 credits**

In this course, students will examine the role Administrative Sciences play in the decision-making process, in conceptual terms. They will identify the problems, opportunities, and decisions faced by managers in the current business world. Students will analyze the topics of descriptive and inferential statistics, as well as the mathematical models used in management for decision making



**REME 7000: Research Methodology for Businesses: 3 credits**

In this course, students will critically evaluate the different aspects of quantitative, qualitative, and mixed research methods. They will analyze the ethical principles for the protection of the rights of participants in a research study, including data confidentiality, privacy, autonomy, and dignity. They will also use the processes for writing research objectives and questions, preparing the literature review, and collecting and analyzing relevant data for a research paper.

*Prerequisites: STAT 7000*

**RESE 9000: Dissertation Seminar: 3 credits**

In this course, students will write the prospectus for their doctoral dissertation in the business field. They will establish the research problem, the significance of its study, the theoretical or conceptual framework, as well as the research questions. Finally, they will justify the appropriate methodology and design for their research.

*Prerequisites: DBA 7000, 7010, 7020, 7100, 7110, 7200, 7210, 7300, REME 7000, STAT 7000, STRA 8000, 8100, 8200, 8300*

**RESE 9100: Dissertation I: 3 credits**

In this course, students will develop their research proposal. They will justify their research problem and the relevant literature that supports their work. Students will identify possible research questions and hypotheses and the proper methodology. They will verify the articulation of their research proposal's components. They will verify their research according to the feedback of their peers and director. Finally, students will submit their research proposal for evaluation and approval of the Institutional Review Board (IRB).

*Prerequisite: RESE 9000*

**RESE 9200: Dissertation II: 6 credits**

In this course, students will execute the research protocol for data collection, as proposed and approved by the Institutional Review Board (IRB). They will apply the appropriate analysis to their research design to ensure a reliable interpretation of data. Furthermore, they will present the conclusions and recommendations of their research. They

will produce the final dissertation document, demonstrating their academic capacity for analysis, evaluation, and synthesis of the knowledge acquired through the research. Finally, they will defend their dissertation before the members of the Dissertation Committee and the academic community. Prerequisite: RESE 9100

**STAT 7000: Statistics for Business Research: 3 credits**

In this course, students will apply statistical techniques, such as hypothesis tests and sampling, inferential statistics, and nonparametric tests, among others to be used in research for population analysis and decision-making in business settings. They will interpret statistical concepts related to correlation and multivariate methods. They will determine the adequate methods for the use of time series and forecasts done with various methodologies.

**STRA 8000: Corporate Strategy: 3 credits**

In this course, students will contrast strategic vision and contemporary organizational policy. They will evaluate the fundamentals and processes of formulation, development, implementation, and evaluation of the corporate strategy. Students will also design a corporate strategy with a focus on market positioning.

**STRA 8100: Strategic Management: 3 credits**

In this course, students will apply the fundamental principles of strategic management by critically evaluating the techniques, strategies, and models inherent in the execution of business strategies. They will critically analyze the positioning of a company to design the strategy that best suits the corporate objectives. In addition, students will evaluate the implementation process of business strategies for decision-making from a strategic, competitive, and sustainable perspective.

*Prerequisites: STRA 8000*

**STRA 8200: Strategic Organizational Leadership: 3 credits**

In this course, students will evaluate the

paradigms and trends of strategic organizational leadership in the operation of local or global businesses. They will determine the impact of leadership styles on the management of human talent in organizations. Additionally, they will propose strategies for human talent management that promote organizational effectiveness.

**STRA 8300: Information  
Systems Strategic  
Management: 3 credits**

In this course, students will evaluate the fundamentals of strategic planning and the implementation of information systems for the effective management of an organization. They will examine literature related to the use of data and service management strategies for enhancing a company's competitive position. Finally, students will develop a proposal for integrating information technology (IT) into an organization's operations, which includes strategies to address the challenges and opportunities related to its implementation.

***MASTER'S DEGREES IN BUSINESS ADMINISTRATION  
ACADEMIC PROGRAMS***

# Master's Degree in Business Administration

## OBJECTIVE

The graduates of the Master's Degree in Business Administration will be able to implement management principles, while applying the process and analysis of optimal evaluation to contemporary business problems. Manage organizations within a dynamic and competitive global environment, using proper business tools for qualitative and quantitative research and resolve organizational problems. Furthermore, evaluate business theories according to their relevance and application to the world of global business and develop professionally with an appreciation of the importance of social responsibility, ethics, and excellence.

## PROGRAM COMPETENCIES

1. Apply creatively knowledge and skills in the performance of duties as executive in companies or organizations.
2. Perform efficiently using ethical reasoning, knowledge, skills and attitudes needed to make decisions and implement optimal solutions, contributing to the development and implementation of strategic plans.
3. Apply knowledge and skills in organizations of different levels of complexity, establish and defend arguments both verbally and written.
4. Value the economic, social and political environment of private companies and public entities. Develop and evaluate projects that add value to the organization.
5. Use technology for collecting and analyzing multidimensional information for decision-making.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online delivery method.
- Also, available in English via online delivery method.
- Students should only enroll in classes and programs delivered in English at NUC University if they have adequately mastered the English language (reading, writing, and speaking). Likewise, students should not enroll in courses and programs delivered in Spanish at NUC University unless they have an adequate master of the Spanish language.
- Completing a course or program in a language other than English may reduce employability

where English is required.

## MINIMUM REQUIREMENTS

24 Credits in Core Courses

15 Credits in Major Courses

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**39 Total Credits**

## CORE COURSES

MBA 5000	Organizational Behavior	3
MBA 5010	Marketing Management	3
MBA 5020	Managerial Economics	3
MBA 5040	Managerial Accounting	3
MBA 5050	Managerial Finance	3
REME 5100	Research Methodology	3
STAT 5210	Statistics	3
MBA 6000*	Business Administration Integrating Seminar (Capstone)	3
		<b>24</b>

## MAJOR COURSES

MBA 5030	Human Resources Development Administration and Management	3
MBA 5200	Business Leadership	3
MBA 5220	Social and Ethical Responsibility	3
MBA 5240	Project Management and Administration	3
MBA 5260	Managerial Information Systems	3
		<b>15</b>
		<b>39</b>

## TOTAL CREDITS

## NOTES:

- All courses must be passed with at least a "B" grade.
- \*This course includes the use of simulator.
- Course weeks may vary depending on the program offering, which has a total length of approximately 48 weeks.

## Master's Degree in Business Administration with Specialty in Digital Marketing

### OBJECTIVE

The Master's Degree in Business Administration with specialty in Digital Marketing will train students in the application of analytical skills to formulate digital marketing strategies and measure their effectiveness. Students will develop a strategic mindset toward company achievements through the application of creative and innovative solutions and the use of digital communication channels, such as social networks, websites, SEM, and SEO. Likewise, they will employ action plans that include strategies for enhancing a company's brand through digital marketing.

### PROGRAM COMPETENCIES

1. Creatively apply their knowledge and skills in the performance of their duties as administrators and professionals in the field of digital marketing.
2. Logically and critically, evaluate the performance of marketing campaigns and compliance with corporate strategies through the analysis of performance indicators (KPI).
3. Defend their arguments in an assertive and efficient manner, both verbally and in writing, while exercising their duties as digital marketing specialists.
4. Utilize technological and computer media, such as SEO and SEM, in the formulation of strategies for social networks and websites.
5. Assess the economic, cultural, social, and political environments around companies in order to add significant value to an organization's marketing program.
6. Demonstrate leadership with an entrepreneurial and tolerant vision toward cultural diversity, using critical thinking to make optimal decisions based on ethics and social responsibility.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online delivery method.
- Also, available in English via online delivery method.
- Students should only enroll in classes and programs delivered in English at NUC University if they have adequately mastered the English language (reading, writing, and speaking). Likewise, students should not enroll in courses and programs delivered in Spanish at NUC University unless they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

24 Credits in Core Courses

15 Credits in Major Courses

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**39 Total Credits**

### CORE COURSES

MBA 5000	Organizational Behavior	3
MBA 5010	Marketing Management	3
MBA 5020	Managerial Economics	3
MBA 5040	Managerial Accounting	3
MBA 5050	Managerial Finance	3
MBA 6000*	Business Administration Integrating Seminar (Capstone)	3
REME 5100	Research Methodology	3
STAT 5210	Statistics	3
		<b>24</b>

### MAJOR COURSES

MKTG 6000	Fundamentals of Digital Marketing	3
MKTG 6015	Digital Advertising	3
MKTG 6025	Search Engine Marketing (Sem-Seo)	3
MKTG 6035	Social Media Marketing	3
MKTG 6045	Digital Marketing Analytics	3
		<b>15</b>
<b>TOTAL CREDITS</b>		<b>39</b>

### NOTES:

- All courses must be passed with at least a "B" grade.
- \*This course includes the use of simulator.
- Course weeks may vary depending on the program offering, which has a total length of approximately 48 weeks.

## Master's Degree in Business Administration with Specialty in Healthcare Management

### OBJECTIVE

The Master's Degree in Business Administration with Specialty in Healthcare Management program offers students the fundamentals of the planning, coordination, and management of organizations that provide health services. Graduates of this program will analyze the quality indicators that measure efficiency in the provision of health services in order to develop and examine policies that affect the well-being of the patient. They will integrate legal aspects and ethical principles into operational decision-making processes. In addition, students will develop competencies in project and health information management.

### PROGRAM COMPETENCIES

1. Apply critically and creatively the theoretical foundations and models related to the administration of health care organizations for the formulation of alternatives that generate value to the organization.
2. Demonstrate leadership and assertive communication skills in solving problems of various levels of complexity to establish and defend their arguments orally and in writing.
3. Develop strategies aimed at the preservation and management of patient care data for decision-making to improve the quality of services in organizations.
4. Employ technological and computer resources for the use, management, and processing of diverse information in the operation of any type of health care organization.
5. Interpret legal aspects and ethical principles in operational processes related to the administration of health services.
6. Value individual uniqueness, cultural diversity, and human needs in the administration of health care organizations.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online delivery method.
- Also, available in English via online delivery method.
- Students should only enroll in classes and programs delivered in English at NUC University if they have adequately mastered the English language (reading, writing, and speaking). Likewise, students should not enroll in courses and programs delivered in Spanish at NUC University unless they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

24 Credits in Core Courses

15 Credits in Major Courses

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### 39 Total Credits

#### CORE COURSES

MBA 5000	Organizational Behavior	3
MBA 5010	Marketing Management	3
MBA 5020	Managerial Economics	3
MBA 5040	Managerial Accounting	3
MBA 5050	Managerial Finance	3
MBA 6000*	Business Administration Integrating Seminar (Capstone)	3
REME 5100	Research Methodology	3
STAT 5210	Statistics	3
		<b>24</b>

#### MAJOR COURSES

HEMA 6010	Fundamentals of Health Care Management	3
HEMA 6015	Health Planning and Policies	3
HEMA 6020	Legal and Ethical Issues in Health Care Management	3
HEMA 6030	Health Information Management	3
HEMA 6040	Project Management in Health Care Organizations	3
		<b>15</b>
<b>TOTAL CREDITS</b>		<b>39</b>

### NOTES:

- All courses must be passed with at least a "B" grade.
- \*This course includes the use of simulator.
- Course weeks may vary depending on the program offering, which has a total length of approximately 48 weeks.

# Master's Degree in Business Administration with Specialty in Human Resources

## OBJECTIVE

The Master's Degree Program in Business Administration with specialty in Human Resources will prepare students with the knowledge needed for managing human talent, organizations, and work environments. Students will develop interpersonal and leadership skills as well as competencies in business acumen to create initiatives that align with organizational strategies. They will also apply strategic thinking to effectively manage a human resources department based on ethics, legal compliance, and the creation of a diverse and inclusive work environment.

## PROGRAM COMPETENCIES

1. Apply knowledge of a human resources department's role in the employee acquisition, development, retention, and compensation processes, among others.
2. Incorporate effective communication skills in the elaboration and defense of written and spoken arguments, being sensitive to the concerns presented by the employees, and sharing information through diverse organizational levels.
3. Demonstrate the ability to lead with an entrepreneurial vision for creating a work environment based on diversity, equality, and inclusion where the workforce is treated with respect and dignity and has equal access to opportunities.
4. Critically analyze the issues related to human talent management to make optimal decisions based on ethics and social responsibility.
5. Develop skills in people analytics using technology to improve the processes related to human talent management in businesses.
6. Assess the economic, cultural, social, political, and legal environments in which organizations operate to manage the efforts of the human resources staff so that they will add value to these organizations.
7. Develop knowledge and skills for the understanding of business acumen to establish strategic human resources initiatives that are aligned with the strategies of the organization.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online delivery method.
- Also, available in English via online delivery method.
- Students should only enroll in classes and programs delivered in English at NUC University if they have adequately mastered the English language (reading, writing, and speaking). Likewise, students should not enroll in courses and programs delivered in Spanish at NUC University unless they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

24 Credits in Core Courses

15 Credits in Major Courses

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**39 Total Credits**

## CORE COURSES

MBA 5000	Organizational Behavior	3
MBA 5010	Marketing Management	3
MBA 5020	Managerial Economics	3
MBA 5040	Managerial Accounting	3
MBA 5050	Managerial Finance	3
MBA 6000*	Business Administration Integrating Seminar (Capstone)	3
REME 5100	Research Methodology	3
STAT 5210	Statistics	3
		<b>24</b>

## MAJOR COURSES

HURE 6000	Human Resources Role in Organizations	3
HURE 6015	Total Compensation Strategy	3
HURE 6025	Employment Law	3
HURE 6035	People Analytics	3
HURE 6045	Strategic Human Resources Management (Capstone)	3
		<b>15</b>
<b>TOTAL CREDITS</b>		<b>39</b>

## NOTES:

- All courses must be passed with at least a B" grade.
- \*This course includes the use of simulator.
- Course weeks may vary depending on the program offering, which has a total length of approximately 48 weeks.



# Master's Degree in Business Administration with Specialty in Planning and Strategy

## OBJECTIVE

The Master's Degree Program in Business Administration with Specialty in Planning and Strategy aspires to develop professionals with the necessary knowledge and skills to manage daily and non-routine operations within the company. The graduates from this program will be able to develop strategic projects and at the same time participate effectively in the management of operations. Furthermore, the student will be able to manage quantitative, qualitative, comparative, and analytical methodological tools, as well as tools in planning, direction, and control of operations in organization.

## PROGRAM COMPETENCIES

1. Analyze and select the quantitative and qualitative methodological tools that will help him to conceptualize strategic decisions and will serve as support in the planning, direction and control of operations in any type of organization.
2. Collect, analyze, and interpret multidimensional information through the use of technology for the development, implementation, and control of creative strategies for any type of organization.
3. Demonstrate leadership with an entrepreneurial vision, tolerance towards cultural diversity and the ability to use critical thinking to make optimal decisions based on ethics and social responsibility.
4. Value the economic, cultural, social, and political environment surrounding companies and direct the efforts in the area of operations so that they add value to these organizations.
5. Apply their knowledge and skills in organizations with different complexity levels to establish and defend their arguments both in oral and written language.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online delivery method.
- Also, available in English via online delivery method.
- Students should only enroll in classes and programs delivered in English at NUC University if they have adequately mastered the English language (reading, writing, and speaking). Likewise, students should not enroll in courses and programs delivered in Spanish at NUC University unless they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

24 Credits in Core Courses

15 Credits in Major Courses

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**39 Total Credits**

## CORE COURSES

MBA 5000	Organizational Behavior	3
MBA 5010	Marketing Management	3
MBA 5020	Managerial Economics	3
MBA 5040	Managerial Accounting	3
MBA 5050	Managerial Finance	3
MBA 6000*	Business Administration Integrating Seminar (Capstone)	3
REME 5100	Research Methodology	3
STAT 5210	Statistics	3
		<b>24</b>

## MAJOR COURSES

MBA 5240	Project Management and Administration	3
PLAN 6010	Operations Management	3
PLAN 6015	Strategic Management	3
PLAN 6020	Strategic Planning	3
PLAN 6030	Quantitative Analysis for Decision Making	3
		<b>15</b>
<b>TOTAL CREDITS</b>		<b>39</b>

## NOTES:

- All courses must be passed with at least a "B" grade.
- \*This course includes the use of simulator.
- Course weeks may vary depending on the program offering, which has a total length of approximately 48 weeks.



# Master's Degree in Business Administration with specialty in Management

## OBJECTIVE

The Master's Degree in Business Administration with specialty in Management will equip the student with the managerial and leadership competencies necessary to manage challenges, take advantage of opportunities, and achieve organizational success and sustainability in the contemporary business environment. Students will examine global initiatives for the implementation of effective strategies and consider economic, political, and cultural factors when making ethical strategic decisions. Likewise, they will use project management and human capital management skills.

## PROGRAM COMPETENCIES

1. Apply knowledge and skills creatively when performing the duties of a manager to overcome challenges and achieve organizational success by engaging in local and global initiatives.
2. Analyze logically and critically complex situations, as well as innovative opportunities, from various perspectives to develop creative strategies for achieving organizational objectives.
3. Defend arguments verbally and in writing in a way that is assertive and efficient when performing the duties of a manager.
4. Use technology and computers to improve operational efficiency, decision-making, and the global competitiveness of an organization.
5. Evaluate the economic, cultural, social, and political environment of companies to contribute to the value of organizational operations.
6. Demonstrate leadership, an entrepreneurial vision that is tolerant of cultural diversity, and critical thinking skills when making optimal decisions based on ethics and social responsibility.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

25 Credits in Core Courses

15 Credits in Specialty Courses

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**39 Total Credits**

## CORE COURSES:

MBA 5000	Organizational Behavior	3
MBA 5010	Marketing Management	3
MBA 5020	Managerial Economics	3
MBA 5040	Managerial Accounting	3
MBA 5050	Managerial Finance	3
MBA 6000	Business Administration Integrating Seminar	3
REME 5100	Research Methodology	3
STAT 5210	Statistics	3
		<b>24</b>

## SPECIALTY COURSES:

MANA 6000	Management and Strategic Leadership	3
MANA 6010	Ethical Leadership	3
MANA 6020	Global Strategic Management	3
MANA 6030	Human Capital Management	3
MBA 5240	Project Management and Administration	3
		<b>15</b>
<b>TOTAL CREDITS</b>		<b>39</b>

## NOTES:

- \*All courses must be passed with at least a "B" grade.

## ***MASTER'S DEGREES IN BUSINESS ADMINISTRATION COURSE DESCRIPTIONS***

**HEMA 6010: Fundamentals of Health Care Management: 3 Credits**

In this course, the student will analyze the fundamentals of health services administration and the perspectives on service delivery. Students will distinguish the types of health organizations, their operation, structure, and components, including human capital. In addition, the student will value the importance of operational and quality indicators in strategic planning as metrics that facilitate the evaluation of efficiency in the provision of health services.

**HEMA 6015: Health Planning and Policies: 3 Credits**

In this course, the student will analyze the fundamentals related to the development of public policy for the resolution or reduction of problems that affect the prevalence and incidence of diseases in the population. Students will interpret the challenges in health access based on social determinants and the management of comorbidities in the population for the establishment of federal and state public policy. In addition, he/she will propose changes in the provision of health services according to the needs and problems identified in the population. Likewise, it will design an institutional policy based on research and compliance with current public policies for the improvement in the provision of health services to patients.

*(Pre-requisito: HEMA 6010)*

**HEMA 6030: Health Information Management: 3 Credits**

In this course, the student will examine the fundamentals of health information management. Students will evaluate the elements related to confidentiality, privacy, and security of medical information in traditional and electronic health records. Also, the student will analyze secondary data sources and statistics related to health care for interpretation and decision making.

**HEMA 6040: Project Management in Health Care Organizations: 3 Credits**

In this course, the student will analyze the theoretical foundations of project management methodologies applicable to health service organizations. Students will evaluate the elements related to the initiation, planning, execution, and closing of a project directed to a

health services organization. Also, develop plans for the achievement of compliance standards and project success.

**HURE 6000: Human Resources Role in Organizations: 3 credits**

In this course, students will develop a general understanding of the functions and activities related to human resources. They will strategically examine the employment life cycle, including talent acquisition, retention, and development. They will analyze the ethical aspects of the profession, the importance of effective communication to improve their management and their consultant role as a strategic partner of the company.

**HURE 6015: Total Compensation Strategy: 3 credits**

In this course, students will demonstrate skills in the process of designing and executing total compensation systems strategically aligned to organizational needs. They will also analyze existing compensation structures with recommendations for changes corresponding to a company's internal needs and external market factors. Finally, they will create a total compensation strategy for attracting and retaining top talent locally and globally. (Pre-requisite: HURE 6000)

**HURE 6025: Employment Law: 3 credits**

In this course, students will examine the fundamentals of federal and state labor law and its applicability in the field of human resources. They will analyze complex situations related to worker protection, harassment, and employment discrimination to identify and apply the main corresponding laws. Additionally, they will evaluate employment contract terms and employment termination, along with their legal implications in both cases. (Pre-requisite: HURE 6000)

**HURE 6035: People Analytics: 3 credits**

In this course, students will examine the fundamental principles of data collection and analysis for human resource analytics. They will analyze the results of key performance indicators (KPIs) such as onboarding, training, and talent acquisition for strategic decision-making in human resources management. In addition,

students will apply data visualization tools for understanding human resources analytics.

**HURE 6045: Strategic Human Resources Management (Capstone): 3 credits**

In this course, students will examine the alignment of human capital strategy with the strategy, direction, and goals of a company. Additionally, they will evaluate how human resource decisions contribute to a company's organizational effectiveness and competitive advantage. Finally, they will analyze the role of managers in organizational development and the implementation of effective, efficient, and ethical human resource practices that support organizational strategic objectives. This course utilizes a simulator to complete practical exercises. (Pre-requisite: HURE 6000)

**MANA 6000: Management and Strategic Leadership: 3 credits**

In this course, students will develop skills for implementing hybrid management models, innovation, and diversity management. They will integrate innovation into the strategic planning process for operational decision-making and the development of high-performance organizational cultures. Likewise, they will evaluate managerial practices that strategically guide and facilitate change in response to contemporary leadership challenges, strengthening organizational resilience and sustainability.

**MANA 6010: Ethical Leadership: 3 credits**

In this course, students will value the importance of ethical leadership for decision-making and the long-term success of an organization. They will evaluate ethical dilemmas in organizations to make responsible decisions, considering different options, possible consequences, risk management, and appropriate actions in accordance with ethical and legal standards. Furthermore, they will apply measures to establish a strong organizational culture that values ethics in the workplace.

**MANA 6020: Global Strategic Management: 3 credits**

In this course, students will analyze the historical and conceptual evolution of global management, the impact of culture, and technological changes on the development and implementation of ethical and effective business strategies. They will

determine the factors that contribute to the successful implementation of global business strategies, as well as various types of leadership and business structures. Additionally, they will evaluate the applicability of an optimal strategy for a business, considering the cultural, political, and economic factors that impact international expansion.

**MANA 6030: Human Capital Management: 3 credits**

In this course, students will evaluate the fundamentals and strategies for effectively identifying and planning human capital. They will develop skills for identifying and recruiting top talent. Additionally, they will compare available strategies for assessing needs and designing training and development programs, promoting employee engagement within the organization, and strategies for retaining human capital.

**MBA 5000: Organizational Behavior: 3 credits**

In this course, students will examine theories and concepts related to organizational behavior. They will develop skills that enable them to manage behavior in work groups, corporate culture, and their implications on organizational performance. Students will also analyze the relationship between motivation, communication, and conflict management, as well as the performance of individuals within an organization.

**MBA 5010: Marketing Management: 3 credits**

In this course, students will analyze market segmentation and brand positioning from a managerial approach. They will evaluate the challenges and opportunities in the environment for business decision-making. Students will develop marketing strategies based on market research.

**MBA 5020: Managerial Economics: 3 credits**

In this course, students will examine economic theories, their application in the business environment, and the analysis of the connections that exist between the company and its various areas with its economic environment. They will analyze production, costs, and consumer behavior as key elements in business decision making. They will evaluate market structures

related to economic growth and stability.

**MBA 5030: Human Resources Development Administration and Management: 3 credits**

In this course, the student will analyze the fundamentals of strategic management of human resources and its relevance to meet business needs and objectives. Students will evaluate the sources of recruitment and new technological trends for talent acquisition in companies, as well as strategies for the development of a workforce that contributes to the continued success of the organization. In addition, he/she will determine the effectiveness of strategies for the retention and development of human talent, as well as for the effective management of the work environment.

**MBA 5040: Managerial Accounting: 3 credits**

In this course, the student will analyze accounting as a tool for obtaining relevant and accurate information. Students will use cost systems for the selection of information and the formulation of effective strategies to solve problems. Finally, students will design profit maximization and productivity strategies to support decision making.

**MBA 5050: Managerial Finance: 3 credits**

In this course, students will examine the fundamental concepts of managerial finance functions. They will analyze the financial statements of an organization to support its financial decision-making. Finally, students will evaluate the inherent risk in investment instruments as a basis for making both short-term and long-term financing decisions.

**MBA 5200: Business Leadership: 3 credits**

In this course, students will analyze the main concepts and theories regarding business leadership and development of the skills needed to exercise effective leadership. The students will critically evaluate current leadership challenges and their implications in an organization's changes and performance. In addition, students will examine the human resources of a company through an ethical, fair, democratic, and inspiring process.

**MBA 5220: Social and Ethical Responsibility: 3 credits**

In this course, students will examine the benefits of integrating ethical considerations and corporate social responsibility (CSR) into the development of business policies. They will evaluate the influence of morality and ethical values in business decision-making. Additionally, they will analyze ethical leadership and the development of codes of ethics within organizations.

**MBA 5240: Project Management and Administration: 3 credits**

In this course, the student will analyze the fundamental concepts of project management and how they impact the organizational strategy. It will examine the processes in the project life cycle for successful risk management, as well as the disclosure of results in scope, time and costs. In addition, you will integrate communication processes into project management and closure.

**MBA 5260: Managerial Information Systems: 3 credits**

In this course, students will analyze the concepts, processes and modern techniques used to ensure control of information management as well as the security, integrity and quality of the data stored in the information systems. Students will discuss security techniques used in information management of a network system. Also, they will develop a relationships diagram that implements automation and security processes for a company or business.

**MBA 6000: Business Administration Integrating Seminar (Capstone): 3 credits**

In this course, students will demonstrate competitive competencies and strategies in a business in order to obtain annual operating profits, a competitive contribution margin, and a growth in stock value that solidifies its position in the market through the role of a senior management executive. They will also develop effective strategies for inventory management, according to the metrics established by the company, aimed at promoting success in the market and avoiding incurring losses for operating losses. Likewise, they will prepare detailed written and oral reports to communicate their analysis and support their decisions to the stakeholders within a company. This course

utilizes a simulator to complete practical exercises. (Pre-requisites: MBA 5000, 5010, 5020, 5030, 5040, 5050, 5240, STAT 5210 or MBA 5000, 5010, 5020, 5040, 5050, 5240, STAT 5210 or MBA 5000, 5010, 5020, 5040, 5050, STAT 5210)

**MKTG 6000: Fundamentals of Digital Marketing: 3 credits**

In this course, students will interpret the theoretical foundations and key elements of digital marketing, as well as its effect on behavior and decision-making in the business environment. They will assess the marketing mix strategies used by marketing specialists, consumer behavior in the digital sphere, and the platforms for the implementation of digital strategies. In addition, they will create a digital marketing plan with objectives and strategies for the attraction, conversion, and loyalty of consumers. (Pre-requisite: MBA 5010)

**MKTG 6015: Digital Advertising: 3 credits**

In this course, students will analyze the foundations of digital advertising including its components, distribution channels, and formats. They will develop advertising campaigns through strategies for landing pages, paid search marketing, email marketing, and social ads. In addition, students will create a strategic plan for digital advertising. This course requires the use of a simulator to complete practical exercises. (Pre-requisite: MKTG 6000)

**MKTG 6025: Search Engine Marketing (SEM-SEO): 3 credits**

In this course, students will develop search engine marketing (SEM) strategies aimed at highlighting a company's products or services on a search page. They will apply search engine optimization (SEO) techniques to broaden the company's visibility on organic search results. Students will evaluate the best practices for the improvement of classification in search engines, such as keyword research and link creation. This course uses a simulator to provide students with an experience closer to their professional field. (Pre-requisite: MKTG 6000)

**MKTG 6035: Social Media Marketing: 3 credits**

In this course, students will analyze fundamental social media marketing concepts in order to

distinguish the digital presence of a brand. They will evaluate the audience, market, and performance indicators of a brand on social media platforms to develop recommendations for organic and paid content in digital campaigns. Students will also develop a strategic social media plan for a product or service. This course utilizes a simulator to complete practical exercises (Pre-requisite: MKTG 6000)

**MKTG 6045: Digital Marketing Analytics: 3 credits**

In this course, students will develop techniques for the evaluation, interpretation, and integration of data obtained through tools for the measurement of digital marketing data. They will evaluate, by means of practical exercises, the metrics obtained through digital tools for the measurement of success of online and social media digital campaigns. Likewise, students will formulate digital marketing strategies based on analyzed data. This course uses a simulator to provide students with an experience closer to the reality of the professional field. (Pre-requisite: MKTG 6015, MKTG 6035)

**PLAN 6010: Operations Management: 3 credits**

In this course, students will analyze the concepts, business strategies, and skills necessary for operations management in manufacturing and services environments. They will select methods and tools for operational excellence to meet quality standards and improve operations management. They will evaluate strategies, operational flow, industrial engineering, inventory, and the supply chain as a practical introduction to the field of business operations.

**PLAN 6015: Strategic Management: 3 credits**

In this course, students will analyze theoretical concepts and fundamentals of strategic management in different organizations. Additionally, they will analyze three main areas: strategic management models, strategy formulation, and the roles related to strategic management. They will also analyze the management and administration of strategies in organizations.

**PLAN 6020: Strategic Planning: 3 credits**

In this course, students will analyze the strategic

planning theories at a corporate level. They will evaluate the different models of strategic planning from the perspective of its evolution, relevance, importance, and benefits. They will develop a strategic plan in all of its parts. They will analyze the factors that could cause the failure of strategic plans and design strategies to avoid it. They will create a plan to implement strategic plans, evaluation measures, and control mechanisms. (Pre-requisites: PLAN 6015)

**PLAN 6030: Quantitative Analysis for Decision Making: 3 credits**

In this course, students will analyze the theoretical foundations of quantitative analysis and its applicability in managerial decision making. They will assess the use of regression models with quantitative and qualitative variables, as well as their applicability in business environments. Additionally, they will formulate different types of quantitative forecasts based on theoretical foundations. They will also determine the importance of inventory control models for productivity and efficiency in businesses. (Pre-requisite: STAT 5210)

**REME 5100: Research Methodology: 3 credits**

In this course, students will examine the research process as a means of finding solutions to business problems. In addition, they will identify the methods, designs, principles, and instruments used in an investigation. Students will develop skills in the application of research methodology through critical analysis of research publications.

**STAT 5210: Statistics: 3 credits**

In this course, students will analyze descriptive statistics and its key concepts, as well as the presentation, interpretation, and graphical representation of data. They will explain the nature of probability distribution and its application in practical situations. In addition, students will apply hypothesis testing using different techniques such as ANOVA and the concepts of linear regression and multiple regression in the solution of problems.

***MASTER'S DEGREES IN EDUCATION  
ACADEMIC PROGRAMS***



## Master's Degree in Education with Specialty in Assessment and Effectiveness

### OBJECTIVE

The Master's Degree in Education with Specialty in Assessment and Effectiveness aims to develop competent leaders in their profession, capable of designing and implementing evaluation plans for assessments of the learning outcomes and aspects concerning the effectiveness of the academic process. In addition, it prepares the students with the skills, concepts and attitudes necessary to support the continuous improvement of institutions by assessing and evaluating the effectiveness of their educational and organizational processes.

### PROGRAM COMPETENCIES

1. Apply critical, reflective, and creative thinking skills when doing research, as well as find and apply quantitative and qualitative tools for evaluating and solving problems related to the profession.
2. Evaluate educational programs for planning, developing and implementing the assessment processes that result in continuous improvement and the achievement of the educational goals of any educational organization.
3. Apply effective assessment strategies and techniques for the purpose of advising and guiding organizations in the improvement of educational programs for achieving the academic success of the student.
4. Develop assessment plans that facilitate making decisions related to the evaluation of learning results and effectiveness.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online delivery method.
- Also, available in English via online delivery method.
- Students should only enroll in classes and programs delivered in English at NUC University if they have adequately mastered the English language (reading, writing, and speaking). Likewise, students should not enroll in courses and programs delivered in Spanish at NUC University unless they have

an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

21 Credits in Core Courses

18 Credits in Major Courses

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**39 Total Credits**

### CORE COURSES

EDUC 5100	Educational Research Methods	3
EDUC 5110	Psychosocial Foundations of Education	3
EDUC 5120	Organizational Behavior and Change	3
EDUC 5200	Theories, Principles and Processes Governing the Design of Educational Programs	3
EDUC 5210	Ethical and Legal Aspects of Education	3
EDUC 5220	Human Resources Administration	3
EDUC 5140	Administration of Special Education Programs	3
		<b>21</b>

### MAJOR COURSES

EDUC 6225	Fundamentals of Assessment and Effectiveness	3
EDUC 6230	Effectiveness in Higher Education	3
EDUC 6240	Evaluation of the Teaching-Learning Process	3
EDUC 6250	Assessment of Educational Programs and Systems	3
EDUC 6060	Planning and Evaluation	3
EDUC 6050	Integrative Seminar in Education	3
		<b>18</b>
<b>TOTAL CREDITS</b>		<b>39</b>

### NOTES:

- All courses must be passed with at least a "B" grade.
- Course weeks may vary depending on the program offering, which has a total length of approximately 48 weeks.

# Master's Degree in Education with Specialty in Curriculum

## OBJECTIVE

The Master's in Education with specialty in Curriculum will equip students with the necessary knowledge for the design, development, implementation, and evaluation of innovative curricula in public or private educational organizations. Graduates of this program will be able to apply their knowledge and skills by articulating creative activities that result in the continuous improvement of academic performance, as well as their professional skills in the educational field.

## PROGRAM COMPETENCIES

1. Apply critical, reflective, and creative thinking skills in the design, development, implementation, and evaluation of innovative curricula.
2. Apply the skills and competencies of the process, development, and implementation of the curriculum in various educational organizations to develop innovative activities that arise in the teaching/learning process.
3. Integrate the knowledge and skills needed to effectively develop innovative curricula that result in the continuous improvement of academic achievement.
4. Develop a curricular project that guides the institutional processes that effectively govern the design of educational programs.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online delivery method.
- Also, available in English via online delivery method.
- Students should only enroll in classes and programs delivered in English at NUC University if they have adequately mastered the English language (reading, writing, and speaking). Likewise, students should not enroll in courses and programs delivered in Spanish at NUC University unless they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

21 Credits in Core Courses

18 Credits in Major Courses

### 39 Total Credits

## CORE COURSES

EDUC 5100	Educational Research Methods	3
EDUC 5110	Psychosocial Foundations of Education	3
EDUC 5150	Behavior and Curriculum Innovation	3
EDUC 5160	Integrating the Special Curriculum into the Mainstream Program	3
EDUC 5200	Theories, Principles and Processes Governing the Design of Educational Programs	3
EDUC 5210	Ethical and Legal Aspects of Education	3
EDUC 5250	Resource Allocation for Curriculum Implementation	3
		<b>21</b>

## MAJOR COURSES

EDUC 6200	Curriculum Design and Planning	3
EDUC 6240	Evaluation of the Teaching-Learning Process	3
EDUC 6260	Theories and Principles of Curriculum in Contemporary Education	3
EDUC 6060	Planning and Evaluation	3
EDUC 6050	Integrative Seminar in Education	3
EDUC 6070	Curriculum, Instruction, and Learning	3
		<b>18</b>

## TOTAL CREDITS

**39**

## NOTES:

- All courses must be passed with at least a "B" grade.
- Course weeks may vary depending on the program offering, which has a total length of approximately 48 weeks.

## Master's Degree in Education with Specialty in Educational Leadership

### OBJECTIVE

The Master's Degree in Education with Specialty in Educational Leadership will provide the students with the necessary knowledge, skills and competencies to: function as transformative leaders in public and private educational organizations, effectively, ethically and productively; promote through innovative management and instructional practices a school climate conducive to learning for all constituents; encourage the formation and strengthening of learning communities in constant development and the creation and maintenance of a service-oriented organizational culture of the highest quality to all customers. It is characterized by the attitude toward collaboration, participation and sense of commitment from all participants.

### PROGRAM COMPETENCIES

1. Apply the principle of management in the analysis and solution of educational problems.
2. Plan and implement innovative and educational change projects.
3. Promote continuous and consistent growth in the professional and organizational level.
4. Develop a culture of reflection and learning among all members of the school community.
5. Design innovative educational interventions at curricular and administrative level.
6. Display an attitude of openness to the research process.
7. Deepen their knowledge on the overall performance of educational institutions and in particular on the roles of the school director in the areas of school life.
8. Able to think logically, critically and make judgments appropriately weighted to enable them to contribute to the continuous improvement of education in Puerto Rico.

### LANGUAGE OPTION AND MODALITY

- \*Field Experience Track - Available in Spanish language via on ground and online (hybrid) delivery method.
- \*\*Leadership Track - Available in Spanish language via on ground and online delivery method. Also, this track is available in English

via online delivery method.

- Students should only enroll in classes and programs delivered in English at NUC University if they have adequately mastered the English language (reading, writing, and speaking). Likewise, students should not enroll in courses and programs delivered in Spanish at NUC University unless they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

21 Credits in Core Courses

18 Credits in Major Courses

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**39 Total Credits**

### CORE COURSES

EDUC 5100	Educational Research Methods	3
EDUC 5110	Psychosocial Foundations of Education	3
EDUC 5120	Organizational Behavior a and Change	3
EDUC 5200	Theories, Principles and Processes Governing the Design of Educational Programs	3
EDUC 5210	Ethical And Legal Aspects of Education	3
EDUC 5220	Human Resources Administration	3
EDUC 5140	Administration of Special Education Programs	3
		<b>21</b>

### MAJOR COURSES

EDUC 5230	Instructional Leadership in Educational Scenarios	3
EDUC 5240*	Ethical and Transformational Leadership	3
EDUC 6000	Educational Supervision	3
EDUC 6010	Seminar on Processes and Controversial Issues in Educational Management	3
		<b>12</b>

### Choose one of the following tracks:

#### \*Field Experience Track

EDUC 6015	Field Experiences in the Educational Scenario I	3
EDUC 6035	Field Experiences in the Educational Scenario II	3
Or		

**\*\*Leadership Track**

EDUC 6025	Leadership for Diversity	3
EDUC 6050	Integrative Seminar in Education	3
		<b>18</b>
<b>TOTAL CREDITS</b>		<b>39</b>

**NOTES:**

- All courses must be passed with at least a "B" grade.
- \*This course includes the use of simulator.
- Course weeks may vary depending on the program offering, which has a total length of approximately 48 weeks.
- \*The Field Experience Track of the Master's Degree in Education with Specialty in Educational Leadership is designed to prepare graduates to be licensed as school principals by the Puerto Rico Education Department. For more information about this licensure, contact the Division of Teaching Certification of the Puerto Rico Department of Education, <https://de.pr.gov/>
- The Field Experience courses are equivalent to a total of 145 hours distributed as follow:
  - EDUC 6015 - This stage requires a minimum of 30 hours in the educational scenario and an integration seminar consisting of 15 hours.
  - EDUC 6035 - This stage requires a minimum of 75 hours spread over 3 hours a day, five days a week in the school setting and an integration seminar consisting of 25 hours.
- For the field experiences courses, students may be required to present a health certificate issued by the Puerto Rico Health Department, between others requirements.
- \*\*The Leadership Track of the Master's Degree in Education with Specialty in Educational Leadership is designed to prepare graduates to be educational leaders. This track does not have field experiences.

***MASTER'S DEGREES IN EDUCATION  
COURSE DESCRIPTIONS***

**EDUC 5100: Educational Research****Methods: 3 credits**

In this course, students will evaluate research processes, methods, and designs. They will analyze research as knowledge managers in order to improve the educational processes. They will evaluate studies that integrate qualitative and quantitative foci and are useful for decision-making in the field of education. Finally, they will develop an educational research proposal.

**EDUC 5110: Psychosocial Foundations of Education: 3 credits**

In this course, students will analyze the learning process of pupils from the point of view of the main schools of thought in psychology and sociology that influence education. They will examine aspects that influence the psychosocial and moral development of the pupil taking into account social diversity and school culture. They will evaluate the relationship between social change and education, as well as the impact of psychosocial and cultural factors on the school environment and the educational system.

**EDUC 5120: Organizational Behavior and Change: 3 credits**

In this course, students will evaluate the concepts, theories, principles, and models that govern organizational behavior and change, and their influence on the role of the educator as an agent of change. Likewise, they will assess the usefulness of effective communication for the educator and members of the school community as a factor in the proper development of curricula in educational institutions. Additionally, they will analyze the importance of developing learning communities to achieve excellence in education.

**EDUC 5140: Administration of Special Education Programs: 3 credits**

In this course, students will evaluate the role of educators and support staff in the processes of intervention, diagnosis, evaluation, and curricular adaptation for students with disabilities. They will analyze the legal foundations regulating these processes in special education programs and their applicability in documents such as the Individualized Education Program (IEP) and procedural safeguards. In addition, they will apply new trends and practices in special education in accordance with the regulations and procedures established in the educational

environment for the academic, social, transitional, and behavioral development of these students

**EDUC 5150: Behavior and Curriculum Innovation 3 credits**

In this course, students will evaluate the concepts, theories, principles, and models that govern organizational behavior and change, and their influence on the role of the educator as an agent of change. Likewise, they will assess the usefulness of effective communication for the educator and members of the school community as a factor in the proper development of curricula in educational institutions. Additionally, they will analyze the importance of developing learning communities to achieve excellence in education.

**EDUC 5160: Integrating the Special Curriculum into the Mainstream Program: 3 credits**

In this course, students will evaluate the role of educators and support staff in the processes of intervention, diagnosis, evaluation, and curricular adaptation for students with disabilities. They will analyze the legal foundations regulating these processes in special education programs and their applicability in documents such as the Individualized Education Program (IEP) and procedural safeguards. In addition, they will apply new trends and practices in special education to improve the special curriculum and integrate these students into the mainstream program.

**EDUC 5200: Theories, Principles and Processes Governing the Design of Educational Programs: 3 credits**

In this course, students will analyze the curricular foundations, principles, concepts, models, and theories applied to the design of programs in educational settings. Students will also evaluate the elements and resources useful for implementing cutting-edge changes in the development of new educational programs in the 21st century. Lastly, they will design a curriculum guide that responds to an educational program, considering context analysis, evaluation, educational processes, learning styles, and innovative instructional strategies, among others.

**EDUC 5210: Ethical and Legal Aspects of Education: 3 credits**

In this course, students will critically evaluate the ethical and moral concepts, as well as the professional standards, of educational leadership. They will analyze the legal foundations that intervene and regulate the public and private education system in the United States of America and their ramifications in the territories or commonwealths. They will examine a variety of case laws in order to value the importance of ensuring due legal process in their career. They will apply relevant laws and concepts to the role of the educator with the aims of improving the educational environment in order to foster the best academic achievement for the students.

**EDUC 5220: Human Resources Administration: 3 credits**

In this course, students will analyze the basic concepts of human resources administration and its importance in the educational context. They will value an administration that promotes equal opportunities and acceptance of diversity. Students will evaluate the role and competencies of the educator in a dynamic, competitive, and globalized environment. Students will responsibly interpret federal and state labor laws affecting human resources management in contemporary educational organizations.

**EDUC 5230: Instructional Leadership in Educational Scenarios: 3 credits**

In this course, students will analyze the necessary skills for the professional development of the school principal as an instructional leader. In addition, they will assess the importance of the professional standards of managers and teachers in setting and achieving goals. Students will also develop action plans based on scientifically-based models for the continuous improvement of the school and all students.

**EDUC 5240: Ethical and Transformational Leadership: 3 credits**

In this course, students will analyze the evolutionary development of the educational leadership concept. Likewise, they will distinguish between the ethical, transactional, transformative, and negative leadership styles and their application in effective contemporary organizations. Moreover, they will implement decision making, changes, and sustainability

processes, as well as strategic thinking and promoting of a vision of future. This course includes the use of simulator.

**EDUC 5250: Resource Allocation for Curriculum Implementation: 3 credits**

In this course, students will analyze the basic concepts of human resources processes and responsibilities and their importance in curriculum implementation. They will promote equal opportunities and acceptance of diversity. They will evaluate the role and competencies of the educator in a dynamic, competitive, and current environment. They will responsibly interpret federal and state laws related to human resources and curriculum in contemporary educational organizations.

**EDUC 6000: Educational Supervision: 3 credits**

In this course, students will combine the theoretical, material, and human structure of the school through effective supervision models and styles. They will promote the development of teachers through the integration of innovative strategies focused on their professional growth and the improvement of academic management. (*Pre-requisite: EDUC 5230*)

**EDUC 6010: Seminar on Processes and Controversial Issues in Educational Management: 3 credits**

In this course, students will examine the role of an educational administrator executing their duties in accordance with the vision, mission, goals, and objectives of an educational organization. They will also evaluate controversial issues and problems in educational management, legislation, and reform. Students will analyze the characteristics of new generations and the impact of technological advances on the educational system. Finally, they will develop an integration project to improve the school climate in an educational organization.

**EDUC 6015: Field Experiences in the Educational Scenario I: 3 Credits**

In this course, students will integrate aspects of the educational setting and its administrative and pedagogical processes in an authorized educational center, from the perspective of a future leader. They will apply techniques and strategies for collecting information from



different aspects and components of the educational setting to contribute to the continuous improvement of the educational center. Additionally, they will reflect on their professional practice in a school setting for their preparation as future educational leaders. *(Pre-requisites: EDUC 5100, EDUC 5110, EDUC 5120, EDUC 5140, EDUC 5200, EDUC 5210, EDUC 5220, EDUC 5230, EDUC 5240)*

**EDUC 6025: Leadership for Diversity: 3 Credits**

In this course, students will analyze the challenges faced by leaders within educational contexts in a highly diverse and multicultural society. They will evaluate the main leadership theories from the perspective of diversity, inclusion, and equity in learning environments and educational organizations. Students will assess inclusive leadership styles that justify decision-making and communication within an organization.

**EDUC 6035: Field Experiences in the Educational Scenario II: 3 Credits**

In this course, students will integrate the theories of instructional and administrative leadership into their practice in an educational setting. They will plan integration activities in order to improve the school climate and educational equality using appropriate specialized technology. They will formulate solutions to ethical, legal, and work-related problems and their effect on the decision-making process in current educational settings. *(Pre-requisites: EDUC 6015)*

**EDUC 6050: Integrative Seminar in Education: 3 credits**

In this course, students will integrate the theories and principles of educational leadership into the analysis of cases or situations related to the role of educational leaders in various educational settings. They will argue about the trends in 21<sup>st</sup>-century education related to curriculum, the teaching and learning process, and the evaluation of students and human resources, keeping the established policies and laws within their proper perspective. Lastly, they will create an innovative project according to their area of work, in which they will consider an existing problem and its possible solutions in a particular educational setting. *(Pre-requisites for Assessment and Effectiveness: EDUC 5100, 5110, 5120, 5140,*

*5200, 5210, 5220, 6060, 6225, 6230, 6240.) (Pre-requisites for Curriculum: EDUC 5100, 5110, 5120, 5140, 5200, 5210, 5220, 6200, 6240, 6260, 6060.) (Pre-requisites for Educational Leadership: EDUC 5100, 5110, 5120, 5140, 5200, 5210, 5220, 5230, 5240, 6010, 6025.)*

**EDUC 6060: Planning and Evaluation: 3 credits**

In this course, students will examine the operational considerations related to educational planning and development. They will analyze elements for the articulation of an educational plan, program, or project. Additionally, they will evaluate planning and evaluation tools and models in the field of education.

**EDUC 6070: Curriculum, Instruction, and Learning: 3 credits**

In this course, students will analyze curriculum development processes and how they influence educational design. They will integrate curricular elements for the design, implementation, and evaluation of effective curricula and innovative instructional strategies. Likewise, students will examine a curriculum evaluation process that aligns with the purpose and philosophy of an educational organization and its impact on current education.

**EDUC 6200: Curriculum Design and Planning: 3 credits**

In this course, students will analyze the foundations, approaches, phases, and models of instructional design and curriculum planning. They will evaluate learning strategies and instructional resources for designing lessons that foster educational change. Additionally, they will design an instructional module with didactic materials that address a specific need within the teaching-learning process.

**EDUC 6225: Fundamentals of Assessment and Effectiveness: 3 credits**

In this course, students will discuss the fundamental principles of the assessment process and its relationship with teaching effectiveness in educational settings. They will evaluate assessment techniques and strategies used in teaching and learning processes. In addition, students will develop a learning assessment plan to determine the effectiveness of educational processes.



**EDUC 6230: Effectiveness in Higher Education: 3 credits**

In this course the student will discuss the historical development and function of higher education as well as the advantages and challenges when evaluating the effectiveness of a higher education institution. They evaluate the effectiveness of the academic, administrative and fiscal structures in higher education institutions. Additionally, they will assess the assessment process as a tool to improve and evidence the effectiveness of higher education. *(Pre-requisites: EDUC 5120, 5220 or EDUC 6225)*

**EDUC 6240: Evaluation of the Teaching-Learning Process: 3 credits**

In this course, students will analyze the theoretical foundations that support assessment cycle processes and procedures for the teaching-learning process. They will develop assessment activities to measure learning. They will support their decision-making based on the results and findings obtained in the evaluation cycle. *(Pre-requisites: EDUC 6225)*

**EDUC 6250: Assessment of Educational Programs and Systems: 3 credits**

In this course, students will examine the assessment process for educational systems. They will evaluate the attainment of students' professional competencies and the outcomes of effectiveness indicators or key performance indicators (KPIs) of academic programs. They will develop action plans based on the results obtained, enabling continuous improvement of the educational system. *(Pre-requisites: EDUC 5200, 5210, 5140, 5100, 6060, 6225 or EDUC 6225, EDUC 6230)*

**EDUC 6260: Theories and Principles of Curriculum in Contemporary Education: 3 credits**

In this course, students will evaluate the philosophical, psychological, and social curricular foundations and principles of the educational process. They will design effective study plans

based on individual student needs. They will analyze assessment data and effective strategies for the continuous improvement of curriculum design and implementation in educational settings. *(Pre-requisites: EDUC 5200, 6240)*

***MASTER'S DEGREES IN TECHNOLOGY  
ACADEMIC PROGRAMS***

## Master's Degree in Information Technology

### OBJECTIVE

The master's degree in Information Technology enables students to develop, coordinate, evaluate and implement technological solutions in various business scenarios. Students who graduate from this program will be able to analyze information systems, applying research, communication, leadership and project management skills with the purpose of supporting and maximizing processes and implementing solutions. Additionally, it prepares students with the theoretical and practical aspects of technologies involving extraction, analysis, data visualization and interpretation of results, as well as information security.

### PROGRAM COMPETENCIES

1. Apply knowledge critically and ethically to lead teams and organizations in strategic management of information systems infrastructure.
2. Evaluate the legal, ethical, social and global implications of information systems to make fundamental decisions and optimize results.
3. Recommend solutions to secure the digital assets and intellectual property of an organization.
4. Implement policies and procedures to guarantee confidentiality and integrity in virtual and local network systems.
5. Create and implement dimensional models to extract, analyze, visualize data and interpret results that allow for strategic decision making.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online delivery method.
- Also, available in English via online delivery method.
- Students should only enroll in classes and programs delivered in English at NUC University if they have adequately mastered the English language (reading, writing, and speaking). Likewise, students should not enroll in courses and programs delivered in Spanish at NUC University unless they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

39 Credits in Major Courses

**39 Total Credits**

### MAJOR COURSES

MIT 5000	Information Technology Management	3
MIT 5010	Operating Systems Administration	3
MIT 5020	Data Collection and Modeling	3
MIT 5030	Networks Architecture and Administration	3
MIT 5040	IT Service Management	3
MIT 5050	Data and Information Analysis	3
MIT 5060	Leadership and Ethical Issues in Information Technology	3
MIT 5070	Strategic System Analysis and Design	3
MIT 5080	Information Technology Security	3
MIT 5200	Information Technology Project Management	3
MIT 5220	Virtualization and Cloud Computing	3
MIT 5240	Information Technology Auditing	3
MIT 6000	Information Technology Seminar (Capstone)	3
<b>TOTAL CREDITS</b>		<b>39</b>

### NOTES

- All courses must be passed with at least a "B" grade.
- Before beginning seminar, students must have completed all prerequisites of the courses in accordance with the curriculum of the program.
- Course weeks may vary depending on the program offering, which has a total length of approximately 48 weeks.

***MASTER'S DEGREES IN TECHNOLOGY  
COURSE DESCRIPTIONS***

**MIT 5000: Information Technology Management: 3 credits**

In this course, students will analyze how to manage Information Technologies (IT) and Information Systems to tackle the needs of a company and improve its competitive position. They will evaluate the fundamental principles and practices indicated to strategically use and manage information, to become well-informed and competent IS participants. Finally, students will assess the importance of IS and IT in the problem solving and decision-making processes, in order to contribute to the digital transformation and business strategy of the company.

**MIT 5010: Operating Systems Administration: 3 credits**

In this course, students will analyze the basic characteristics of the infrastructure of a computer, as well as the structure of different types of operating systems and their evolution in the business context. In addition, they will develop an operating systems management plan through the use of diverse applications. They will also evaluate the necessary protection and safety requirements to manage an operating system.

**MIT 5020: Data Collection and Modeling: 3 credits**

In this course, students will analyze concepts related to the general architecture of data warehouse systems, including data marts. They will discuss business intelligence (BI) concepts, such as online analytical processing (OLAP) and data mining. Students will describe the business drivers used to take decisions regarding investment in data warehousing, and the data modeling techniques used to design transactional databases. Likewise, they will apply the knowledge acquired during the course using a database management system to build a physical model.

**MIT 5030: Networks Architecture and Administration: 3 credits**

In this course, students will analyze the concept framework for the strategic planning to design a network architecture and its communication protocols. They will evaluate in detail the reference models and protocol specifications. In addition, students will research the emerging technologies for servicing diverse networks. They will also, integrate the best practices in security,

privacy, and ethics to the information systems strategic planning and service management process.

**MIT 5040: IT Service Management: 3 credits**

In this course, students will analyze the IT Service Management framework for external clients and internal users in alignment with the 4th edition of the Information Technology Infrastructure Library (ITIL®). They will evaluate a strategic approach to designing, delivering, managing, and improving IT services within an organization while adding value to its customers. Furthermore, students will integrate the service value chain and management practices into the validation of processes, people, and technologies suitable for achieving the organization's business objectives. *(Pre-requisite: MIT 5000)*

**MIT 5050: Data and Information Analysis: 3 credits**

In this course, students will analyze concepts, tools and methods related to Big Data Analytics. They will discuss different strategies to collect, process and use the enormous amounts of data available in numerous public sources. In addition, they will use technology to implement the processes involved in the collection, extraction, analysis, and visualization of data, as well as in the interpretation of results. *(Pre-requisite: MIT 5020)*

**MIT 5060: Leadership and Ethical Issues in Information Technology: 3 credits**

In this course, students will evaluate the internal and external environments of organizations in the processes of implementing information technologies from a managerial perspective. Likewise, they will analyze the managerial roles and responsibilities that are developed in information technology management processes and their implications in the ethical decision-making process. Furthermore, they will integrate various effective leadership strategies used in dynamic organizational environments.

**MIT 5070: Strategic System Analysis and Design: 3 credits**

In this course, students will examine the types of information systems, the phases of the Systems Development Life Cycle (SDLC), and the requirements and specifications of a business.

They will also apply various methodologies and strategies for the proper management of these requirements and specifications. Furthermore, they will design a proposal with functional recommendations that provide viable solutions according to the specific needs of the company. *(Pre-requisites: MIT 5010, 5030)*

**MIT 5080: Information Technology Security: 3 credits**

In this course, students will research different vulnerability scenarios of computer information systems with the objective of implementing solutions to security issues in the operations and systems. They will assess security risks to incorporate planning, recovery and business continuity plans in the eventuality of a natural or human-caused disaster. They will analyze policies and legal aspects relevant to network security. *(Pre-requisites: MIT 5010, 5030)*

**MIT 5200: Information Technology Project Management: 3 credits**

In this course, students will analyze management principles focused on the planning and execution of Information Technology (IT) projects. They will evaluate theoretical fundamentals for project planning, such as scope and resources management; cost development and schedules; risk and change management; and using earned value analysis for project control in project management. Students will also analyze human resources management when planning and executing projects, and examine project management techniques that are essential for the success of technology-driven organizations. Finally, students will analyze current trends that affect IT project management, such as globalization, virtual teams, and outsourcing.

**MIT 5220: Virtualization and Cloud Computing: 3 credits**

In this course, students will analyze concepts related to cloud computing and computer services offered through the internet. They will develop a plan for the implementation, configuration, and management of the different types of services associated with virtual machines, servers, networks, and web applications. In addition, they will set up virtual servers, storage services, and virtual network traffic routing with security groups.

**MIT 5240: Information Technology Auditing: 3 credits**

In this course, students will integrate the principles and processes used to conduct an information technology (IT) audit within a company. They will also analyze the standards and regulations applicable to the audit process. Students will evaluate the audit lifecycle of different IT systems, such as operating systems, databases, web applications, and desktop applications, among others. In addition, they will create audit plans based on security risk assessment and the results of vulnerability tracking tools. They will present the results of these assessments through reports. Furthermore, they will produce business continuity and disaster recovery plans. *(Pre-requisite: MIT 5080)*

**MIT 6000: Information Technology Seminar (Capstone): 3 credits**

In this capstone seminar, students will apply the skills acquired during the Information Technology master's degree program. They will examine the needs and challenges of the information systems (IS) for the strategic planning of information technologies (IT) in an organization. On the other hand, they will evaluate the organizational goals in order to propose solutions to IT-related challenges. In addition, they will set up the management of an IT project in each of its stages to ethically incorporate possible solutions to security and business collaboration issues. *(Pre-requisites: MIT 5000, 5010, 5020, 5030, 5040, 5050, 5060, 5070, 5080, 5200, 5220, 5240)*

***MASTER'S DEGREES IN NURSING  
ACADEMIC PROGRAMS***

## Master's Degree in Science in Nursing with Specialty in Education

### OBJECTIVE

The Master in Science in Nursing program with specialty in Education will prepare students with the professional competencies necessary to perform effectively as nursing specialists in education. Students will apply advanced nursing concepts and clinical judgment to decision-making at different levels of health prevention for individuals, families, and communities. Graduates of this program will demonstrate professional competencies and leadership in the integration of innovative strategies and technologies into the planning, implementation, and evaluation of effective and efficient interventions focused on the quality and safety of healthcare services for diverse populations.

### PROGRAM COMPETENCIES

1. Practice nursing using theoretical knowledge and established procedures in the profession, based on recent research findings, and focusing on the selected area of specialty.
2. Demonstrate leadership in delivering healthcare and rehabilitation services, as well as oral and written communication strategies, focused on establishing effective therapeutic relationships with clients and the interdisciplinary team.
3. Analyze logically and critically information and procedures related to the administration of nursing services, decision-making, and case evaluation for the care of individuals, families, and communities, according to the area of specialization.
4. Interpret qualitative and quantitative information to innovate procedures and identify needs aimed at maintaining health, participating in various treatments, and rehabilitating individuals, families, and community groups.
5. Responsibly utilize emerging trends in technology for personal and professional development, performing more effective and efficient interventions, and publishing original research.
6. Demonstrate ethical and moral judgment and compliance with laws and regulations in nursing practice, as well as responsibility in contributing to public policies that improve, promote, and protect the rights and

healthcare services of individuals, families, and communities.

7. Promote respect for diversity and the protection of the rights of individuals, families, and the community in the development and provision of high-quality healthcare services.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online (hybrid) delivery method.
- Also, available in English via online delivery method.
- Students should only enroll in classes and programs delivered in English at NUC University if they have adequately mastered the English language (reading, writing, and speaking). Likewise, students should not enroll in courses and programs delivered in Spanish at NUC University unless they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

18 Core Courses Credits

9 Specialty Courses Credits

9 Role Courses Credits

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**36 Total Credits**

### CORE COURSES

NURS 5111	Advanced Nursing Research Proposal	3
NURS 5112	Advanced Nursing Research Project	3
NURS 5200	Advanced Pathophysiology	3
NURS 5210	Advanced Pharmacology	3
NURS 5220	Advanced Physical Exam	3
STAT 5210	Statistics	3
		<b>18</b>

### MAJOR COURSES

NURS 6140	Teaching and Learning Strategies in Nursing	3
NURS 6150	Assessment of Nursing Educational Process	3
NURS 6151	Curriculum Development in Nursing Education	3
		<b>9</b>

### ROLE COURSES

NURS 6130	Theories, Principles, and Processes Governing the Design of Educational Programs in Nursing	3
NURS 6170	Teaching Processes in Nursing Education	3
NURS 6195P	Practice in Educational Processes in Nursing	3



**TOTAL CREDITS****36****NOTES:**

- All courses must be passed with at least a "B" grade.
- Course weeks may vary depending on the program offering, which has a total length of approximately 48 weeks.
- This program is designed to prepare graduates to be nurse specialists. In Puerto Rico, nurse specialists must be licensed by the Puerto Rico Board of Nursing. For more information about this licensure, contact the Puerto Rico Board of Nursing, <https://orcps.salud.gov.pr/>.
- For the internship courses students may be required to present the inoculation certificate issued by the Puerto Rico Health Department, certification of Hepatitis, Influenza and Chicken Pox vaccines, between others requirements.

# Master's Degree in Science in Nursing with Specialty in Medical Surgical and Role in Education

## OBJECTIVE

The Master in Science in Nursing program with specialty in Medical Surgical and a role in Education will prepare students with the professional competencies to practice as nursing specialists in an educator role. Students will apply advanced nursing concepts and clinical judgment in decision-making across different levels of health prevention for individuals, families, and communities. Graduates of this program will demonstrate professional competencies and leadership in the integration of innovative strategies and technologies into the planning, implementation, and evaluation of effective and efficient interventions focused on the quality and safety of healthcare services for diverse populations

## PROGRAM COMPETENCIES

1. Practice nursing using theoretical knowledge and established procedures in the profession, based on recent research findings, and focusing on the selected area of specialty.
2. Demonstrate leadership in delivering healthcare and rehabilitation services, as well as oral and written communication strategies, focused on establishing effective therapeutic relationships with clients and the interdisciplinary team.
3. Analyze logically and critically information and procedures related to the administration of nursing services, decision-making, and case evaluation for the care of individuals, families, and communities, according to the area of specialization.
4. Interpret qualitative and quantitative information to innovate procedures and identify needs aimed at maintaining health, participating in various treatments, and rehabilitating individuals, families, and community groups.
5. Responsibly utilize emerging trends in technology for personal and professional development, performing more effective and efficient interventions, and publishing original research.
6. Demonstrate ethical and moral judgment and compliance with laws and regulations in

nursing practice, as well as responsibility in contributing to public policies that improve, promote, and protect the rights and healthcare services of individuals, families, and communities.

7. Promote respect for diversity and the protection of the rights of individuals, families, and the community in the development and provision of high-quality healthcare services.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online (hybrid) delivery method.
- Also, available in English via online delivery method.
- Students should only enroll in classes and programs delivered in English at NUC University if they have adequately mastered the English language (reading, writing, and speaking). Likewise, students should not enroll in courses and programs delivered in Spanish at NUC University unless they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

18 Core Courses Credits

9 Specialty Courses Credits

9 Role Course Credits

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**36 Total Credits**

## CORE COURSES

NURS 5111	Advanced Nursing Research Proposal	3
NURS 5112	Advanced Nursing Research Project	3
NURS 5200	Advanced Pathophysiology	3
NURS 5210	Advanced Pharmacology	3
NURS 5220	Advanced Physical Exam	3
STAT 5210	Statistics	3
		<b>18</b>

## MAJOR COURSES

NURS 6000	Advance Surgical	3
NURS 6012	Advanced Medical-Surgical I	3
NURS 6022	Advanced Medical-Surgical II	3
		<b>9</b>

## ROLE COURSES

NURS 6140	Teaching and Learning Strategies in Nursing	3
NURS 6170	Teaching Processes in Nursing Education	3
NURS 6190P	Teaching Practice in Nursing Education	3
		<b>9</b>

**NOTES:**

- All courses must be passed with at least a "B" grade.
- Course weeks may vary depending on the program offering, which has a total length of approximately 48 weeks.
- This program is designed to prepare graduates to be nurse specialists. In Puerto Rico, nurse specialists must be licensed by the Puerto Rico Board of Nursing. For more information about this licensure, contact the Puerto Rico Board of Nursing, <https://orcps.salud.gov.pr/>.
- For the internship courses students may be required to present the inoculation certificate issued by the Puerto Rico Health Department, certification of Hepatitis, Influenza and Chicken Pox vaccines, between others requirements.

# Master's Degree in Science in Nursing with Specialty in Medical Surgical and Role in Management and Executive Leadership

## OBJECTIVE

The Master in Science in Nursing program with specialty in Medical-Surgical Nursing and a role in Administration and Executive Leadership will prepare students with the professional competencies necessary to practice as nursing specialists in the role of administrator. Students will apply advanced nursing concepts and clinical judgment in decision-making across different levels of health prevention for individuals, families, and communities. Graduates of this program will demonstrate professional competencies and leadership in the integration of innovative strategies and technologies into the planning, implementation, and evaluation of effective and efficient interventions focused on the quality and safety of healthcare services for diverse populations.

## PROGRAM COMPETENCIES

1. Practice nursing using theoretical knowledge and established procedures in the profession, based on recent research findings, and focusing on the selected area of specialty.
2. Demonstrate leadership in delivering healthcare and rehabilitation services, as well as oral and written communication strategies, focused on establishing effective therapeutic relationships with clients and the interdisciplinary team.
3. Analyze logically and critically information and procedures related to the administration of nursing services, decision-making, and case evaluation for the care of individuals, families, and communities, according to the area of specialization.
4. Interpret qualitative and quantitative information to innovate procedures and identify needs aimed at maintaining health, participating in various treatments, and rehabilitating individuals, families, and community groups.
5. Responsibly utilize emerging trends in technology for personal and professional development, performing more effective and

efficient interventions, and publishing original research.

6. Demonstrate ethical and moral judgment and compliance with laws and regulations in nursing practice, as well as responsibility in contributing to public policies that improve, promote, and protect the rights and healthcare services of individuals, families, and communities.
7. Promote respect for diversity and the protection of the rights of individuals, families, and the community in the development and provision of high-quality healthcare services.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online (hybrid) delivery method.
- Also, available in English via online delivery method.
- Students should only enroll in classes and programs delivered in English at NUC University if they have adequately mastered the English language (reading, writing, and speaking). Likewise, students should not enroll in courses and programs delivered in Spanish at NUC University unless they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

18 Core Courses Credits  
9 Specialty Courses Credits  
9 Role Course Credits

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**36 Total Credits**

## CORE COURSES

NURS 5111	Advanced Nursing Research Proposal	3
NURS 5112	Advanced Nursing Research Project	3
NURS 5200	Advanced Pathophysiology	3
NURS 5210	Advanced Pharmacology	3
NURS 5220	Advanced Physical Exam	3
STAT 5210	Statistics	3
		<b>18</b>

## MAJOR COURSES

NURS 6000	Advance Surgical	3
NURS 6012	Advanced Medical-Surgical I	3
NURS 6022	Advanced Medical-Surgical II	3
		<b>9</b>

**ROLE COURSES**

NURS 6050	Human Resources Development in Nursing Management	3
NURS 6160	Administrative Processes in Nursing Services	3
NURS 6180P	Administrative Practice in Nursing Services	3
		<b>9</b>
<b>TOTAL CREDITS</b>		<b>36</b>

**NOTES:**

- All courses must be passed with at least a "B" grade.
- Course weeks may vary depending on the program offering, which has a total length of approximately 48 weeks.
- This program is designed to prepare graduates to be nurse specialists. In Puerto Rico, nurse specialists must be licensed by the Puerto Rico Board of Nursing. For more information about this licensure, contact the Puerto Rico Board of Nursing, <https://orcps.salud.gov.pr/>.
- For the internship courses students may be required to present the inoculation certificate issued by the Puerto Rico Health Department, certification of Hepatitis, Influenza and Chicken Pox vaccines, between others requirements.

# Master’s in Science in Nursing with specialty in Adults and the Elderly (Education Role or Management)

## OBJECTIVE

The Master’s in Science in Nursing with specialty in Adults and the Elderly (Education Role or Management) will prepare students with the professional competencies necessary to practice as nursing specialists in the roles of educator or manager. Students will apply advanced nursing concepts and clinical judgment for decision-making at various levels of health conditions in individuals, families, and communities. Graduates of this program will demonstrate professional competencies and leadership in the integration of innovative strategies and technologies into the planning, implementation, and evaluation of effective and efficient interventions focused on the quality and safety of healthcare services for diverse populations.

## PROGRAM COMPETENCIES

1. Practice nursing using theoretical knowledge and established procedures in the profession, based on recent research findings, and focusing on the selected area of specialty.
2. Demonstrate leadership in delivering healthcare and rehabilitation services, as well as oral and written communication strategies, focused on establishing effective therapeutic relationships with clients and the interdisciplinary team.
3. Analyze logically and critically information and procedures related to the administration of nursing services, decision-making, and case evaluation for the care of individuals, families, and communities, according to the area of specialization.
4. Interpret qualitative and quantitative information to innovate procedures and identify needs aimed at maintaining health, participating in various treatments, and rehabilitating individuals, families, and community groups.
5. Responsibly utilize emerging trends in technology for personal and professional development, performing more effective and efficient interventions, and publishing original research.
6. Demonstrate ethical and moral judgment and

compliance with laws and regulations in nursing practice, as well as responsibility in contributing to public policies that improve, promote, and protect the rights and healthcare services of individuals, families, and communities.

7. Promote respect for diversity and the protection of the rights of individuals, families, and the community in the development and provision of high-quality healthcare services.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

18 Credits in General Education  
9 Credits in Specialty Courses  
9 Credits in Role Courses

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### 36 Total Credits

## CORE COURSES:

NURS 5200	Advanced Pathophysiology	3
NURS 5210	Advanced Pharmacology	3
NURS 5220	Advanced Physical Exam	3
NURS 5111	Advanced Nursing Research Proposal	3
NURS 5112	Advanced Nursing Research Project	3
STAT 5210	Statistics	3
		<b>18</b>

## SPECIALTY COURSES:

NURS 6100	Advanced Care of Adults and the Elderly I	3
NURS 6110	Advanced Care of Adults and the Elderly II	3
NURS 6120	Advanced Care of Adults and the Elderly III	3
		<b>9</b>

## ROLE COURSES (EDUCATION):

NURS 6140	Teaching and Learning Strategies in Nursing	3
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NURS 6170	Teaching Processes in Nursing Education	3
NURS 6190P	Teaching Practice in Nursing Education	3
		<b>9</b>

**ROLE COURSES (MANAGEMENT):**

NURS 6050	Human Resources Development in Nursing Management	3
NURS 6160	Administrative Processes in Nursing Services	3
NURS 6180P	Administrative Practice in Nursing Services	3
		<b>9</b>

**TOTAL CREDITS 36**

**NOTES:**

- \*All courses must be passed with at least a "B" grade.
- Course weeks may vary depending on the program offering, which has a total length of approximately 48 weeks.
- This program is designed to prepare graduates to be nurse specialists. In Puerto Rico, nurse specialists must be licensed by the Puerto Rico Board of Nursing. For more information about this licensure, contact the Puerto Rico Board of Nursing, <https://orcps.salud.gov.pr/>.
- For the internship courses students may be required to present the inoculation certificate issued by the Puerto Rico Health Department, certification of Hepatitis, Influenza and Chicken Pox vaccines, between others requirements.

## ***MASTER'S DEGREES IN NURSING COURSE DESCRIPTIONS***



**NURS 5111: Advanced Nursing Research Proposal: 3 Credits**

In this course, students will assess aspects of ethical integrity, morality, and respect for diversity in the regulatory and compliance processes applied to research in advanced nursing practice. They will demonstrate the ability to manage technological competencies in developing the literature review chapter for their advanced nursing research proposal. They will evaluate the methodological design of their research proposal in advanced nursing as part of their research competencies. They will create a high-quality advanced nursing research proposal using critical and creative thinking and logical reasoning for the planning, execution, and evaluation of the methodology. (Prerequisites: STAT 5210)

**NURS 5112: Advanced Nursing Research Project: 3 credits**

In this course, students will develop the competencies and skills of a nursing professional based on principles of integrity, responsibility, and respect for cultural, ethnic, and social diversity. Students will apply techniques for critically evaluating scientific evidence and statistical data analysis. They will conduct advanced nursing research to improve the quality of healthcare. (Prerequisites: STAT 5210, NURS 5111)

**NURS 5200: Advanced Pathophysiology: 3 credits**

In this course, students will evaluate recent research and scientific evidence to make well-informed clinical decisions based on best practices in the care of patients with pathophysiological disorders. They will analyze high-incidence pathological processes across the lifespan using oral and written communication strategies. They will establish the relationship between normal physiology and specific alterations resulting from injuries or diseases through the application of critical thinking. Additionally, they will critically examine the pathophysiology of various medical conditions using both qualitative and quantitative information within medical care procedures.

**NURS 5210: Advanced Pharmacology: 3 credits**

In this course, students will analyze the fundamentals of pharmacology, drug action principles, pharmacokinetics, and pharmacotherapy in the context of advanced nursing practice. They will evaluate the ethical and legal aspects governing the use and distribution of drugs, as well as the role of nursing professionals in medication administration. Students will integrate research findings and evidence-based practices into the study of chemical processes and the therapeutic effects of pharmacological treatment on the human body systems.

**NURS 5220: Advanced Physical Exam: 3 credits**

In this course, students will determine criteria for safely, competently, and comprehensively assessing and promoting health. They will employ advanced diagnostic reasoning and physical assessment skills to identify and communicate changes in acute and chronic health patterns. Students will apply processes for detailed information gathering with a systematic focus on health assessment and physical examination, incorporating the use of technology. Additionally, they will demonstrate ethical and legal principles when differentiating, interpreting, and documenting physical, biological, psychosocial, and cultural data related to normal findings and possible alterations.

**NURS 6000: Advanced Surgical: 3 credits**

In this course, students will analyze the fundamental concepts of advanced surgical nursing practice throughout the perioperative phases (preoperative, intraoperative, and postoperative). They will evaluate the general and specific considerations essential for specialist nursing professionals, including anatomy, various surgical procedures, potential complications, and side effects. Students will substantiate the roles of surgical nursing professionals in advanced perioperative practice, applying critical thinking, clinical judgment, and evidence-based practice across various perioperative stages. They will differentiate pathological conditions that require invasive and non-invasive surgical procedures. Furthermore, they will establish specific considerations and ethical and legal aspects when working with adult, pediatric, and geriatric

clients, as well as issues related to surgical trauma, along with complementary and alternative therapies.

**NURS 6012: Advanced Medical-Surgical I: 3 credits**

In this course, students will examine the evolution and trends of the medical-surgical nursing specialty. They will analyze the competencies of the medical-surgical nursing specialist in caring for adult and older adult patients with pathophysiological alterations or mental health issues in various healthcare scenarios. Students will identify the cultural, ethical, and legal considerations and common health problems in adult and older adult patients. Likewise, they will integrate critical thinking, clinical judgment, and evidence-based practice in justifying the nursing specialists' actions and the various stages of the nursing process. Students will also develop expertise in advanced nursing interventions for patients with problems of the integumentary, respiratory, and cardiovascular systems and in managing fluid, electrolyte, and acid-base balance.

(Prerequisites: NURS 5200, NURS 5210, NURS 5220, NURS 6000)

**NURS 6022: Advanced Medical-Surgical II: 3 credits**

In this course, students will develop expertise in the advanced nursing management of clients with health problems related to the immune, hematological, neurological, musculoskeletal, gastrointestinal, endocrine, renal, and male and female reproductive systems. They will integrate critical thinking, clinical judgment, and evidence-based practice to justify the nursing specialists' actions and the various stages of the nursing process. Likewise, they will establish ethical and legal considerations when working with adult and elderly clients with various health problems. (Prerequisites: NURS 5200, NURS 5210, NURS 5220)

**NURS 6050: Human Resources Development in Nursing Management: 3 credits**

In this course, students will develop the skills and knowledge necessary for the effective management of nursing personnel. Additionally, they will implement planning, recruitment, selection, retention, and training practices for the

personnel under their supervision. They will also analyze the labor laws regulating nursing practice and the management of employee relations.

**NURS 6100: Advanced Care of Adults and the Elderly I: 3 credits**

In this course, students will assess the needs of adult and elderly patients to justify advanced nursing interventions. They will analyze pathophysiological principles, therapeutic pharmaceuticals, theories, and research applicable to health conditions affecting the population. Students will integrate advanced nursing knowledge and required skills according to their selected role in education or administration. (Prerequisites: NURS 5200, NURS 5210, NURS 5220)

**NURS 6110: Advanced Care of Adults and the Elderly II: 3 credits**

In this course, the student will apply advanced nursing interventions for common medical conditions in adults and the elderly. They will analyze the problems of the body systems that affect this population. They will investigate hematological disorders and their treatment alternatives. (Prerequisites: NURS 5200, NURS 5210, NURS 5220)

**NURS 6120: Advanced Care of Adults and the Elderly III: 3 credits**

In this course, the student will analyze the most common health problems in adults and the elderly, such as cardiovascular, respiratory, gastrointestinal, renal, genitourinary, and gynecological problems, as well as the trends and indicators that define their health status. Likewise, they will apply the concepts and theories presented in diverse research related to these health problems. In addition, they will critically evaluate the nursing process based on their knowledge of pathophysiology and pharmacology and data from the physical assessment. (Prerequisites: NURS 5200, NURS 5210, NURS 5220)

**NURS 6130: Theories, Principles, and Processes Governing the Design of Educational Programs in Nursing: 3 credits**

In this course, students will analyze the curriculum fundamentals, principles, concepts, models, and theories applicable to the design of nursing educational programs. Additionally, they

will evaluate the elements and resources necessary for generating changes in the development of new educational programs. Furthermore, they will design a curriculum guide for an educational program that considers, among other aspects, context analysis, assessment, educational processes, learning styles, and innovative instructional strategies.

**NURS 6140: Teaching and Learning Strategies in Nursing: 3 credits**

In this course, students will analyze different educational philosophies and theories based on andragogy and the teaching-learning process in nursing courses. Additionally, they will develop lesson plans and educational activities that respond to various teaching and learning evaluation models for different environments like the classroom and simulated scenarios. Students will also design lessons that promote practice based on evidence and nursing competencies, such as respect for diversity and the use of technology.

**NURS 6150: Assessment of Nursing Educational Process: 3 credits**

In this course, students will analyze the theoretical fundamentals of the assessment process and its relationship with the educational process. They will evaluate assessment and evaluation strategies, as well as the usefulness of assessment results as a means for improving student learning. They will design evaluation instruments that best respond to the educational objectives and goals planned in the teaching-learning process.

**NURS 6151: Curriculum Development in Nursing Education: 3 credits**

In this course, students will analyze the basic concepts of curriculum and curriculum design in nursing. They will assess the structural components of the curriculum such as content, methods, teaching-learning strategies, resources, and assessment strategies. They will assess the structural components of the curriculum, such as content, methods, teaching-learning strategies, resources, and assessment strategies. They will argue about the processes of adaptation to change in nursing curriculum development.

**NURS 6160: Administrative Processes in Nursing Services: 3 credits**

In this course, students will examine theories of management, administration, leadership, human behavior, staffing patterns, budgets, and their application to management and leadership in the Department of Nursing. They will analyze various methods of problem-solving, decision-making, planning, organization, direction, and evaluation of outcomes. Furthermore, students will apply management and human behavior concepts to promote individual health.

**NURS 6170: Teaching Processes In Nursing Education: 3 credits**

In this course, students will analyze the educational process in nursing and the role of faculty in higher education, including their rights, responsibilities, and the ethical-legal aspects governing educational practice. They will examine the theoretical foundations of the teaching-learning process, as well as strategies for promoting critical thinking and active learning to achieve learning goals. Furthermore, they will apply teaching and learning processes, integrating various media, multimedia materials, and information resources. Likewise, they will integrate assessment processes and strategies to measure learning outcomes.

**NURS 6180P: Administrative Practice in Nursing Services: 3 credits**

In this course, students will demonstrate the competencies, knowledge, communication, and leadership skills in their roles as administrators and executive leaders during their practice in various healthcare settings. They will develop creative strategic plans related to needs assessment, quality improvement, personnel planning, and budget management to provide effective solutions for managing conflicts and solving problems. They will also analyze the importance of technology and the ethical and legal aspects of cultural diversity within a healthcare services organization.

(Prerequisites: NURS 5112, NURS 6160)

**NURS 6190P: Educational Practice in Nursing Education: 3 credits**

In this course, students will demonstrate their commitment and leadership as nurse educators by completing practicum hours and applying theoretical knowledge and professional skills.

They will critically analyze the applicability of teaching methodologies and strategies in the planning process to meet teaching objectives. Students will also justify the use of evidence-based practice for decision-making. They will employ innovative strategies and technology in the instructional and evaluation processes. Furthermore, they will integrate teaching activities with particular emphasis on diversity, promoting ethical and moral judgment, and compliance with nursing laws and regulations. (Prerequisite: NURS 5112, NURS 6140)

**NURS 6195P: Practice in Educational Processes in Nursing: 3 credits**

In this course, students will demonstrate the skills, competencies, and knowledge required to perform the role of nurse educator and to integrate evidence-based practice and clinical judgment when teaching the discipline of nursing. They will also apply various strategies, methods, and techniques to evaluate teaching and learning processes within higher nursing education. Furthermore, students will develop innovative teaching strategies to foster nursing student learning across various educational environments.

*(Prerequisites: NURS 6130, NURS 6140)  
Corequisites: NURS 6150, NURS 6151, NURS 6170)*

**STAT 5210: Statistics: 3 credits**

In this course, students will analyze descriptive statistics and its key concepts, as well as the presentation, interpretation, and graphical representation of data. They will explain the nature of probability distribution and its application in practical situations. In addition, students will apply hypothesis testing using different techniques such as ANOVA and the concepts of linear regression and multiple regression in the solution of problems.

***MASTER'S DEGREES IN PSYCHOLOGY  
ACADEMIC PROGRAMS***

# Master's Degree in Industrial Organizational Psychology\*

## OBJECTIVE

The Master's Degree in Industrial Organizational Psychology program will train students in the development of scientific, theoretical and ethical principles from an organizational management perspective. The program graduate will apply techniques for data management in scientific and critical analysis as a response to human resources and organizational difficulties. In addition, they will apply fundamental psychology skills to explain their effectiveness in industries and organizations.

## PROGRAM COMPETENCIES

1. Apply scientific, theoretical, methodological and practical knowledge on psychological foundations that are innovative in the field of industrial and organizational psychology, and that generate concepts and actions of social impact.
2. Apply logical and critical thinking skills to examine the information and procedures related to their professional field in the handling of decision making and problem solving in complex situations, from the perspective of industrial and organizational psychology.
3. Demonstrate interpersonal skills and capabilities by expressing their ideas with assertiveness and effectiveness, in oral and written communication, while acting as a human behavior specialist of industries and organizations.
4. Integrate technological and computer media as learning tools for the development of innovative projects that lead to models, ethics, regulations and policies that emerge from the professional practice of psychology.
5. Demonstrate individual and collaborative work skills, guided by a high sense of responsibility, ethical and moral judgment, in compliance with laws, while promoting inclusion, well-being and empathy in their profession within the field of industrial and organizational psychology.

## LANGUAGE OPTION AND MODALITY

- This program is only available via residential or hybrid delivery methods, with the online

course limitations described below. This program is not available via online delivery method.

- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

19 Credits in Core Courses

26 Credits in Major Courses

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**45 Total Credits**

## CORE COURSES

PSYC 5000	Human Development	2
PSYC 5010	Human Behavior in the Social and Multicultural Environment	3
PSYC 5020	Biological Bases of Behavior	3
PSYC 5040	Statistical Methods Applied to Psychology	3
PSYC 5100	Cognitive-Affective Bases of Behavior	3
PSYC 5120	Research Methodology	3
PSYC 5130	Ethics, Values, and Professional Issues in Psychology	2
		<b>19</b>

## MAJOR COURSES

PSYC 5030	Topics in Industrial and Organizational Psychology	3
PSYC 5110	Industrial Psychology Advanced Seminar	3
PSYC 5200	Psychological Testing and Assessment	3
PSYC 5220	Evaluation Techniques	3
PSYC 5230	Professional Consulting Seminar	3
PSYC 5240	Current and Global Business Dilemmas	2
PSYC 5210	Organizational Psychology Advanced Seminar	3
PSYC 5901P	Supervised Practicum I	2
PSYC 6001P	Supervised Practicum II	4
		<b>26</b>

## TOTAL CREDITS

**45**

## NOTES:

- All courses must be passed with at least a "B" grade and practicum courses with a "P" (Pass) grade.
- Course weeks may vary depending on the program offering, which has a total length

of approximately 80 weeks.

- **\* Supervised practicum**

This program is designed for students interested in taking the Puerto Rico Psychologists' Examination and practicing the profession of Psychology in Puerto Rico.

Anyone interested in taking the Puerto Rico Psychologists' licensing examination must enroll in supervised practicum courses that are equivalent to 500 hours in total. According to the Regulations of the Puerto Rico Psychologist Board of Examiners, the number of online courses must not exceed 30% of the total program, and it only applies to courses of a mainly theoretical nature. In order to comply with this regulation, students enrolled in the supervised practicum option may only take the following five (5) courses in the online modality:

- PSYC 5010 – 3 credits
  - PSYC 5030 – 3 credits
  - PSYC 5040 – 3 credits
  - PSYC 5130 – 2 credits
  - PSYC 5240 – 2 credits
- This program is only available via residential or hybrid delivery methods, with the online course limitations described above. This program is not available via fully online delivery method.

## ***MASTER'S DEGREES IN PSYCHOLOGY COURSE DESCRIPTIONS***



**PSYC 5000: Human Development: 2 credits**

In this course, students will analyze the main theories about human growth and development. They will evaluate cognitive, personality, physical, and psychosocial development areas from the main psychological trends. They will identify changes in the life cycle from physical, cognitive, and psychological perspective.

**PSYC 5010: Human Behavior in the Social and Multicultural Environment: 3 credits**

In this course, students will analyze the influence of culture on human cognition and behavior. They will examine the philosophical tenets of European, American, and Latin American social psychology. They will also evaluate cultural, political, and gender factors, among others, and their impact on social attitudes and behaviors from a holistic and global perspective.

**PSYC 5020: Biological Bases of Behavior: 3 credits**

In this course, students will examine the neural structure and processes, as well as the biological and physiological components of the nervous system. They will evaluate the biological and neural basis of cognitive, affective, and social processes in human behavior. Furthermore, they will analyze biophysiological functioning and phenomena of human behavior that require clinical attention in the field of psychology.

**PSYC 5030: Topics in Industrial and Organizational Psychology: 3 credits**

In this course, students will analyze issues, models, and advanced practices related to industrial and organizational psychology. They will apply key methodologies based on succession planning, multicultural leadership development models, strategic planning, staffing models, and other current topics. They will design strategic plans, systems, and processes that impact industries and organizations through critical thinking.

**PSYC 5040: Statistical Methods Applied to Psychology: 3 credits**

In this course, students will evaluate the basic principles of scientific methods and data statistical analysis related to psychology. Furthermore, they will apply procedural implementation techniques to descriptive and inferential statistics. Finally, they will use statistical reasoning to calculate basic measures applicable to socio-psychological problems.

**PSYC 5100: Cognitive-Affective Bases of Behavior: 3 credits**

In this course, students will analyze basic concepts of history and philosophy of psychology as behavioral science. Furthermore, they will evaluate how humans beings process information and organize their emotional experiences and knowledge from the perspective of central theories of cognition and affectivity, as well as factors that influence cognitive performance, in the emotional experience and their interaction. In addition, they will explain memory function, language, reasoning and problem solving, while taking into consideration the multidimensional nature of cognition and affectivity.

**PSYC 5110: Industrial Psychology Advanced Seminar: 3 credits**

In this course, students will analyze theories and techniques related to understanding, forecasting, and managing human behavior within industries. They will apply key methodologies for job analysis, recruitment, and selection of employees, among others, emphasizing the profession's ethical principles and values. They will employ company training and human capital development strategies. In addition, they will evaluate human resource management, including individual performance within the organization.

**PSYC 5120: Research Methodology: 3 credits**

In this course, students will evaluate the process and fundamental approaches of scientific or interpretive research for selecting a research topic in the field of industrial-organizational psychology. They will examine the theory for formulating a research proposal from topic selection to methodology, completing practical exercises. Additionally, they will analyze the concepts and importance of approaches, designs, methods, and data collection processes employed in research. *(Pre-requisite: PSYC 5040)*

**PSYC 5130: Ethics, Values, and Professional Issues in Psychology: 2 credits**

In this course, students will examine the ethical principles and professional regulations governing the professional practice of industrial and organizational psychology. Furthermore, they will evaluate state and federal norms, regulations, and standards from a normative, valued, legal, and professional perspective. They will value the responsibility, commitment, and role of the

industrial-organizational psychologist in managing the resolution of ethical issues in their professional practice. They will employ ethical practices in professional matters where industrial and organizational psychology is involved.

**PSYC 5200: Psychological Testing and Assessment: 3 credits**

In this course, students will examine the main theories and principles of psychological assessment. Furthermore, they will analyze the methods for the selection, development, and critical evaluation of psychological tests (intelligence, personality, aptitude, interest, and achievement). Additionally, students will apply the techniques for the development of psychological assessment instruments with emphasis on the ethical aspects of the field of study. (*Pre-requisite: PSYC 5040*)

**PSYC 5210: Organizational Psychology Advanced Seminar: 3 credits**

In this course, students will analyze the theories and techniques related to the understanding, prognosis, and management of human behavior within organizations. Furthermore, they will apply methodologies related to leadership, organizational behavior, organizational development, organizational climate and culture, and health psychology.

**PSYC 5220: Evaluation Techniques: 3 credits**

In this course, students will analyze the historical background of psychometrics, the succession of metrics, the emergence of controversies, theoretical evolution, and the use of instrumentation. They will critically examine the measurement instrumentation in the workplace through the analysis of test items and the evaluation of validity and reliability components. Additionally, they will apply psychological measurement techniques by recognizing perspectives, selecting instrumentation, conducting tests, and analyzing results with consideration for ethics and validity.

**PSYC 5230: Professional Consulting Seminar: 3 credits**

In this course, students will evaluate the principles, concepts, theories, strategies, and models of professional psychological consulting. Additionally, they will analyze the main roles and functions of consulting practice from an industrial-

organizational psychology perspective. Furthermore, they will examine key ethical controversies related to the practice of organizational consulting. (*Pre-requisites: PSYC 5040, PSYC 5120*)

**PSYC 5240: Current and Global Business Dilemmas: 2 credits**

In this course, students will examine current and global dilemmas in companies from a scientific-investigative perspective, with an emphasis on integration and globalized labor relations, as well as the application and implementation of emerging literature in areas related to industrial-organizational psychology. Additionally, they will analyze the key methodologies highlighted in the course, including organizational coaching, entrepreneurship, innovation, technology application in companies, and project management, among others. Likewise, they will develop a proposal for organizational training.

**PSYC 5901P: Supervised Practicum I 2 Credits**

In this supervised practice, students will assume an ethical and scientific posture in their role as an industrial organizational psychologist in a professional context. They will determine the appropriate models and/or theories to meet the needs of the organization. Additionally, they will demonstrate knowledge as well as the technological and practical skills needed for the performance of tasks delegated by the preceptor in their practice center, by completing 170 hours of practice in industrial organizational psychology. *Prerequisites: PSYC 5000, 5010, 5020, 5030, 5040, 5100, 5110, 5120, 5130, 5210, 5220, 5230*

**PSYC 6001P: Supervised Practicum II 4 credits**

In this supervised practice, students will determine the most appropriate intervention for the development and implementation of an innovative project in the area of industrial organizational psychology. They will design intervention strategies based on the basic principles of project management according to the needs identified in each situation. Additionally, students will assume the role of a professional consultant in industrial organizational psychology, through the planning and implementation of an initiative that addresses a business problem, as well as the evaluation of its effectiveness. *Prerequisite: PSYC 5901P.*

***POST BACCALAURATE CERTIFICATES  
ACADEMIC PROGRAMS***

## Graduate Certificate in Accounting

### OBJECTIVE

The Graduate Certificate in Accounting explores accounting and financial information systems, trade laws, auditing techniques, and engages in an in-depth study of cost accounting. These studies will help students to acquire the knowledge and skills needed to occupy an intermediate-level accounting position.

### PROGRAM COMPETENCIES

1. Perform efficiently with the necessary knowledge, skills, and attitudes to implement solutions while demonstrating leadership, a sense of duty, and ethical reasoning, as well as integrating the use of technology within the field of accounting.
2. Analyze more complex accounting transactions to demonstrate their knowledge, abilities, and critical analysis skills when applying the theories related to their profession.
3. Develop skills to work with the full accounting cycle in individual and corporate businesses, including complying with regulations and preparing financial statements to be used in decision making.
4. Apply information collection and analysis techniques used in advanced auditing processes, when handling taxes, and in advanced cost accounting.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via online delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

20 Credits in Major Courses

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**20 Total Credits**

### COURSES:

ACCE 5000	Financial Accounting I	3
ACCE 5005	Financial Accounting II	3
ACCE 5010	Regulations	3
ACCE 5020	Advanced Auditing	4
ACCE 5030	Advanced Cost Accounting	4
ACCE 5040	Taxes	3
<b>TOTAL CREDITS</b>		<b>20</b>

### NOTES:

- All courses must be passed with at least a "B" grade.
- Course weeks may vary depending on the program offering, which has a total length of approximately 32 weeks.

## Graduate Certificate in Management and Educational Leadership

### OBJECTIVE

The Graduate Certificate in Management and Educational Leadership strives to qualify students with the necessary knowledge and skills to effectively perform as managers or administrators in educational or social programs related to public or private institutions. Leadership skills are important to manage and lead effective efforts to promote, within educational scenarios, ethical and moral values through curricular and extracurricular activities.

### PROGRAM COMPETENCIES

1. Apply critical, reflective and creative thinking skills to determine the scope of the impact of new trends in educational settings.
2. Analyze the role of leadership in any educational organization.
3. Apply administrative strategies and paradigms that serve as a guide to improve institutional processes.
4. Evaluate different circumstances for decision making that reflect ethics and social responsibility.
5. Develop work plans that reflect decision making and allow for effective evaluation of processes in various educational settings.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via online delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

18 Credits in Major Courses

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**18 Total Credits**

### COURSES:

EDUC 5220	Human Resources Administration	3
EDUC 5230	Instructional Leadership in Educational Scenarios	3
EDUC 5240*	Ethical and Transformational Leadership	3
EDUC 6010	Seminar on Processes and Controversial Issues in Educational Management	3
EDUC 6025	Leadership for Diversity	3
EDUC 6050	Integrative Seminar in Education	3

**TOTAL CREDITS 18**

### NOTES:

- All courses must be passed with at least a "B" grade.
- \*This course includes the use of simulator.
- Course weeks may vary depending on the program offering, which has a total length of approximately 32 weeks.

## Graduate Certificate in Online Education

### OBJECTIVE

The Graduate Certificate in Online Education strives to qualify educators in the design and assessment of online teaching. The creation of learning communities in virtual spaces serves as strategy to obtaining accessible information that will enable students to learn the most advanced teaching methodologies and strategies to offer technological training processes at different levels. By using innovative educational models based on the new information technologies, we aim to develop professionals with the necessary knowledge, competence, and skills to develop online courses.

### PROGRAM COMPETENCIES

1. Apply critical, reflective and creative thinking skills to select innovative instructional designs that allow for effective learning through online education.
2. Integrate concepts and skills of online course design to develop innovative strategies in online education.
3. Direct efforts to promote new information and communication technologies in various teaching modalities.
4. Develop instructional design plans that effectively promote online teaching.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via online delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

18 Credits in Major Courses

**18 Total Credits**

### COURSES:

EDUC 5200	Theories, Principles, and Processes Governing the Design of Educational Programs	3
EDUC 6205	Online Learning for Educators	3
EDUC 6210	Learning Assessment in Online Education	3
EDUC 6215	Instructional Design and Online Teaching	3
EDUC 6220	Learning Communities and Virtual Education	3
EDUC 6050	Integrative Seminar in Education	3
<b>TOTAL CREDITS</b>		<b>18</b>

### NOTES:

- All courses must be passed with at least a "B" grade.
- Course weeks may vary depending on the program offering, which has a total length of approximately 32 weeks.

## ***POST BACCALAURATE CERTIFICATES COURSE DESCRIPTIONS***

**ACCE 5000: Financial Accounting: 3 credits**

In this course, students will evaluate the framework for the financial reporting of business entities, government entities, and other nonprofit organizations. They will apply the Generally Accepted Accounting Principles in the United States (US GAAP) to prepare financial statements and their corresponding supporting documents, which include the classification of accounts and the record of information in the subsidiary ledger and in the general ledger. In addition, they will deduce the differences between the financial statements prepared by US GAAP, the International Financial Reporting Standards (IFRS), and the Government Accounting Principles issued by the Governmental Accounting Standards Board (GASB).

**ACCE 5005: Financial Accounting II: 3 credits**

In this course, students will apply accounting principles generally accepted in the United States (US GAAP) for the recording, valuation, calculation, and presentation of specific transactions and their disclosures. They will examine accounting processes related to business combination and leasing. Additionally, students will evaluate the financial reporting framework for governmental entities and non-profit organizations.

**ACCE 5010: Regulations: 3 credits**

In this course, students will examine commercial laws that apply to businesses, contracts, and agents, as well as the main government regulations for workers. They will evaluate the federal tax procedures with which professionals in the accounting field must comply. They will also identify the characteristics of the various business structures, along with their advantages and disadvantages. In addition, they will analyze the concepts related to the professional and ethical responsibilities of accountants in the tax practice.

**ACCE 5020: Advanced Auditing: 4 credits**

In this course, students will evaluate the auditing standards promulgated in the United States of America for public and private companies, government entities, nonprofit entities, and employee benefit plans. They will apply standards related to assurance and limited assurance contracts, as well as standards for performing accounting and review services. Students will

likewise examine study material on auditing topics from the Uniform Certified Public Accountant Examination taken by accountants.

**ACCE 5030: Advanced Cost Accounting: 4 credits**

In this course, students will integrate concepts used in cost accounting, as well as cost behavior, administration, accumulation, and synthesized reports of organizational activities with an emphasis on manufacturing businesses. They will evaluate the usefulness of financial tools provided to management with the explanation of cost behavior. Students will interpret systems for cost recording, especially in manufacturing businesses, recognizing their application to trading and service businesses. They will develop a strategic financial plan for the benefit of managers, its use being a fundamental tool for the achievement of set goals and global competitiveness.

**ACCE 5040: Taxes: 3 credits**

In this course, students will apply tax procedures and aspects from legal and administrative sources of federal income taxes, according to the federal Internal Revenue Code. Additionally, they will evaluate elements of individual income tax and the valuation of property transactions. Students will analyze tax structure and treatment of corporations and societies. Furthermore, they will examine tax fundamentals for estates, trusts, and gifts.

**EDUC 5200: Theories, Principles and Processes Governing the Design of Educational Programs: 3 credits**

In this course, students will analyze the curricular basics, principles, concepts, models, and theories applied to the educational setting. Students will also evaluate the elements and resources to produce changes in the development of new educational programs of the 21st century. Lastly, students will design a curricular guide that responds to an educational program that considers, among other things, context analysis, evaluations, educational processes, learning styles, and innovative instructional strategies for a program.

**EDUC 5220: Human Resources Administration: 3 credits**

In this course, students will analyze the basic concepts of human resources administration and



its importance in the educational context. They will value an administration that promotes equal opportunities and acceptance of diversity. Students will evaluate the role and competencies of the educator in a dynamic, competitive, and globalized environment. Students will responsibly interpret federal and state labor laws related to human resources management in contemporary educational organizations.

**EDUC 5230: Instructional Leadership in Educational Scenarios: 3 credits**

In this course, students will analyze the necessary skills for the professional development of the school principal as an instructional leader. In addition, they will assess the importance of the professional standards of managers and teachers in setting and achieving goals. Students will also develop action plans based on scientifically-based models for the continuous improvement of the school and all students.

**EDUC 5240: Ethical and Transformational Leadership: 3 credits**

In this course, students will analyze the evolutionary development of the educational leadership concept. Likewise, they will distinguish between the ethical, transactional, transformative, and negative leadership styles and their application in effective contemporary organizations. Moreover, they will implement decision making, changes, and sustainability processes, as well as strategic thinking and promoting of a vision of future. This course includes the use of simulator.

**EDUC 6010: Seminar on Processes and Controversial Issues in Educational Management: 3 credits**

In this course, students will examine the role of an educational administrator executing their duties in accordance with the vision, mission, goals, and objectives of an educational organization. They will also evaluate controversial issues and problems in educational management, legislation, and reform. Students will analyze the characteristics of new generations and the impact of technological advances on the educational system. Finally, they will develop an integration project to improve the school climate in an educational organization.

**EDUC 6025: Leadership for Diversity: 3 Credits**

In this course, students will analyze the challenges faced by leaders within educational contexts in a highly diverse and multicultural society. They will evaluate the main leadership theories from the perspective of diversity, inclusion, and equity in learning environments and educational organizations. Students will assess inclusive leadership styles that justify decision-making and communication within an organization.

**EDUC 6050: Integrative Seminar in Education: 3 credits**

In this course, students will integrate the theories and principles of educational leadership into the analysis of cases or situations related to the role of educational leaders in various educational settings. They will argue about the trends in 21<sup>st</sup>-century education related to curriculum, the teaching and learning process, and the evaluation of students and human resources, keeping the established policies and laws within their proper perspective. Lastly, they will create an innovative project according to their area of work, in which they will consider an existing problem and its possible solutions in a particular educational setting. *(Pre-requisites for Assessment and Effectiveness: EDUC 5100, 5110, 5120, 5140, 5200, 5210, 5220, 6060, 6225, 6230, 6240.) (Pre-requisites for Curriculum: EDUC 5100, 5110, 5120, 5140, 5200, 5210, 5220, 6200, 6240, 6260, 6060.) (Pre-requisites for Educational Leadership: EDUC 5100, 5110, 5120, 5140, 5200, 5210, 5220, 5230, 5240, 6010, 6025.)*

**EDUC 6205: Online Learning for Educators: 3 credits**

In this course, students will discuss the history, theoretical foundations, and current modalities of distance learning. They will examine learning strategies, instructional design models, and current online course classifications. Finally, they will develop a learning module or object, applying an instructional design model and integrating of authorship tools or learning management systems platforms (LMS).

**EDUC 6210: Learning Assessment in Online Education: 3 credits**

In this course, students will analyze the fundamentals of assessment and its importance in educational processes. Additionally, they will evaluate assessment types and their relevance

according to the goals and objectives of the institution. Students will identify appropriate technological tools for carrying out distance learning assessment processes. They will also create an institutional assessment plan to strengthen learning in online education.

**EDUC 6215: Instructional Design and Online Teaching: 3 credits**

In this course, students will analyze the instructional design fundamentals for the development of effective online teaching processes. They will create learning activities, evaluations and assessments, as well as educational materials according to the methodological models of effective learning theories in virtual and online environments. Moreover, they will justify their design decisions and the selection of appropriate technological tools for this learning and teaching environment.  
*(Pre-requisite: EDUC 6200)*

**EDUC 6220: Learning Communities and Virtual Education: 3 credits**

In this course, students will analyze the theory and pedagogical foundations of learning communities. Additionally, they will evaluate methods, necessary transformation processes, and possible activities for their creation. Finally, they will create a plan for the development of a virtual learning community, supported with technological resources for the educator.

***UNDERGRADUATE  
ALLIED HEALTH SCIENCES  
ACADEMIC PROGRAMS***

# Bachelor's Degree in Diagnostic Medical Sonography with a Concentration in Cardiovascular Technology

## OBJECTIVE

The bachelor's degree program in Diagnostic Medical Sonography with a Concentration in Cardiovascular Technology will prepare students in various disciplines in the field of ultrasound imaging studies. Likewise, students will develop skills for conducting abdominal, gynecological, obstetric, vascular, and cardiac ultrasound imaging studies, among others. They will apply appropriate techniques for conducting stress tests, physiological studies, Holter studies, and electrocardiograms. Graduates of this program will be able to work in Puerto Rico as general sonographers, cardiac sonographers, vascular sonographers, or cardiovascular technologists in medical offices, hospitals, imaging and diagnostic centers, cardiovascular laboratories, and medical equipment companies, among others, after passing the ultrasound physics exam and one or more of their specialties.

## PROGRAM COMPETENCIES

1. Apply theoretical and practical knowledge of medical terminology, physical assessment, patient history, patient management and care, medical imaging studies, and protocols in their professional role as medical sonographers.
2. Develop skills for conducting studies such as stress tests, Holter monitoring, electrocardiography, echocardiography, carotid Doppler, extremity Doppler, and abdominal Doppler, as part of their professional role as cardiac or vascular sonographers.
3. Analyze information and procedures related to the interpretation of medical orders, image creation, preliminary diagnostic impression, anatomy and physiology, laboratory results, image creation, stress tests, Holter studies, and electrocardiography, among others, in a logical and critical manner.
4. Communicate the preliminary results of studies to the medical team, both orally and

in writing, as well as provide patients with assertive and efficient support and guidance about the procedures to be performed.

5. Utilize available technological and computer resources, incorporating methodological advancements in procedures related to ultrasound, stress tests, Holter studies, electrocardiograms, and imaging.
6. Demonstrate collaborative work skills for the diagnosis, treatment, and comprehensive care of patients, maintaining a high sense of responsibility and compliance with HIPAA and all laws related to their profession, as well as good moral and ethical judgment.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS:

37 Credits in General Education

20 Credits in Core Courses

77 Credits in Major Courses

**134 Total Credits**

## GENERAL EDUCATION:

SPAN 1010*	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
SPAN 2040	Writing and Composition	3
ENGL 1010*	Basic English I	3
ENGL 1020	Basic English II	3
ENGL 2050	Conversational English	3
HUMA 1010	Humanities I	3
HUMA 1020	Humanities II	3
SOSC 1010	Social Sciences I	3
SOSC 1020	Social Sciences II	3
MATH 1010*	Basic Mathematics	3
ITTE 1031L	Computer Literacy and Laboratory	3
SEMI 1010*	Transition to University Life and Professional Training Seminar	1
		<b>37</b>

## CORE COURSES

MESE1010	Medical Terminology	3
BIOL 2010	Human Anatomy and Physiology I	3
BIOL 2020	Human Anatomy and Physiology II	3

BIOL 2030	Sectional Anatomy	2
BIOL 2030L	Sectional Anatomy Laboratory	1
ANAT 2040	Anatomy and Physiology of the Heart	2
PHSC 2030	Ultrasound Physics and Instrumentation I	3
PHSC 2040	Ultrasound Physics and Instrumentation II	3
		<b>20</b>

### MAJOR COURSES

SONO 1020	Introduction to Medical Sonography	3
SONO 1030	Patient Management and Care in Sonographic Imaging	3
SONO 1040L	Abdominal Sonography and Laboratory	4
SONO 2020L	Gynecological Sonography and Laboratory	4
SONO 2030L	Laboratory of Integration of Clinical Skills in Medical Sonography	2
SONO 2050L	Obstetric Sonography and Laboratory	4
SONO 2040P	Clinical Practice I: Medical Sonography	2
SONO 2070L	Sonography of Superficial Structures and Laboratory	4
SONO 2071	Pathology Applied to Medical Sonography I	3
SONO 2060P	Clinical Practice II: Medical Sonography	2
SONO 2072	Pathology Applied To Medical Sonography II	3
SONO 2080	Pre-Certification Exam Seminar in Medical Sonography	2
SONO 2090	Special Procedures In Medical Sonography	2
SONO 3000P	Clinical Practice III: Medical Sonography	5
SONO 3010L	Fundamentals of Electrocardiography, Stress Tests, and Holter	3
SONO 3020L	Basic Echocardiography and Laboratory	4
SONO 3030L	Sonographic Evaluation of Cardiac Pathologies and Laboratory	3
SONO 3040L	Cardiovascular Technology Laboratory	2
SONO 3050L	Vascular Sonography Of Upper Extremities, Clinical Application and Laboratory	3

SONO 3060L	Cerebrovascular Sonography, Clinical Application, and Laboratory	3
SONO 3070P	Sonography and Cardiovascular Technology Practice I	4
SONO 3080L	Vascular Sonography of Lower Extremities, Clinical Application and Laboratory	3
SONO 4010L	Abdominal Doppler and Laboratory	3
SONO 4020P	Sonography and Cardiovascular Technology Practice II	4
SONO 4030	Pre-Certification Seminar in Cardiovascular Sonography	2
		<b>77</b>
<b>TOTAL CREDITS</b>		<b>134</b>

### NOTES:

- \*All general education courses with an asterisk and all core and major courses must be approved with a minimum grade of "C", with the exception of practicum courses that must be approved with at minimum grade of "B".
- Course weeks may vary depending on the program offering, which has a total length of approximately 160 weeks.
- For the internship courses all students will be required to present evidence of Negative Criminal Record Certificate (issued by the Puerto Rico Police Department), a health certificated issued by the Puerto Rico Health Department, certification of Hepatitis B and Chickenpox vaccines, HIPAA certificate, CPR certification, negative certification of Law 300, doping test, respiratory test, influenza vaccine, Covid-19 vaccine (three doses), particle fit test, between others requirements as required.
- This program is designed to prepare graduates to be medical sonographers specializing in cardiac and/or vascular sonography in Puerto Rico. In Puerto Rico, the sonographers with a specialty in cardiac sonography and/or vascular sonography must be licensed by the Examination Board of Radiologic Technologists in Diagnostic Imaging and Radiotherapy Technologists. For for more information visit <https://www.salud.pr.gov/CMS/35>

## Bachelor's Degree in Diagnostic Imaging, Concentration in CT and MRI

### OBJECTIVE

The bachelor's degree in Diagnostic Imaging with concentration in CT and MRI will prepare students with the knowledge, skills, attitudes, and competencies necessary for producing images used in the diagnosis of patients from diverse populations, with a focus on computerized tomography (CT) and magnetic resonance imaging (MRI). Graduates of this program will demonstrate knowledge of scientific and technological advancements in this field, as well as skills for delivering diagnostic imaging services in various healthcare settings, in accordance with the regulations established by the General Regulations of the Licensing Board of Radiological Technologists in Diagnostic Imaging and Radiotherapy Technologists in Puerto Rico. Furthermore, they will promote a culture of safety and quality in healthcare services.

### PROGRAM COMPETENCIES

1. Demonstrate a strong sense of professionalism focused on empathetic and top-quality medical care, as well as the skills for continuous education and professional growth.
2. Employ professional knowledge and skills in the judicious use of ionizing radiation, magnetic fields, and radiofrequency waves to provide superior quality patient care.
3. Effectively express their ideas, both orally and in writing, during simulations and clinical practices, patient interventions, and project and research presentations.
4. Utilize logical reasoning, critical thinking, and clinical judgment in applying systematic problem-solving methods for decision-making, both in routine and non-routine tasks.
5. Effectively manage radiology equipment and information technology media in research and the application of best practices in their professional performance.
6. Apply ethical, legal, and moral principles in the provision of patient-centered healthcare services, based on a culture of safety and the integration of values such as respect for dignity and professional integrity.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

19 Credits in General Education

18 Credits in Core Courses

94 Credits in Major Courses

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**131 Total Credits**

### GENERAL EDUCATION:

ENGL 1010*	Basic English I	3
ENGL 1020	Basic English II	3
ITTE 1031L	Computer Literacy and Laboratory	3
MATH 1010*	Basic Mathematics	3
SPAN 1010*	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
SEMI 1010*	Transition to University Life and Professional Training Seminar	1
		<b>19</b>

### CORE COURSES:

MESE 1010	Medical Terminology	3
BIOL 2010	Anatomy and Physiology I	3
BIOL 2020	Anatomy and Physiology II	3
BIOL 2030	Sectional Anatomy	2
BIOL 2030L	Sectional Anatomy Laboratory	1
PHYS 1020	Introduction to Physics	3
PSYC 2510	Psychology	3
		<b>18</b>

### MAJOR COURSES:

RADI 1010	Introduction to Radiology	2
RADI 2009	Radiological Physics	3
RADI 2010	Patient Care and Management	3
RADI 2020	Radiological Positioning and Related Anatomy I	2
RADI 2020L	Radiographic Positioning and Related Anatomy I: Laboratory	1
RADI 2030	Knowing Imaging Modalities and Equipment	2
RADI 2040L	Integrative Seminar: Laboratory	2
RADI 2050	Principles of Radiographic Exposure	3
RADI 2060	Principles of Radiobiology and Radiographical Protection	2
RADI 2070	Radiological Positioning and Related Anatomy II	2

RADI 2070L	Radiographic Positioning and Related Anatomy II: Laboratory	1
RADI 2080P	Clinical Internship I	3
RADI 2100	Radiological Positioning and Related Anatomy III	2
RADI 2100L	Radiographic Positioning and Related Anatomy III: Laboratory	1
RADI 2110P	Clinical Internship II	3
RADI 2130	Radiological Pathology	2
RADI 2140	Radiological Positioning and Related Anatomy IV	2
RADI 2140L	Radiographic Positioning and Related Anatomy IV: Laboratory	1
RADI 2150P	Clinical Internship III	3
RADI 2170	Radiographic Quality Assurance and Control	2
RADI 2200	Pharmacology and Contrast Media in Diagnostic Imaging	3
RADI 2500	Advanced Sectional Anatomy	4
RADI 3000	Physics: Instrumentation and Images in Computed Tomography	3
RADI 3010	Procedures for Image Formation in Computed Tomography	3
RADI 3020	Pathological Correlation by Computed Tomography	3
RADI 3030	Procedures for Obtaining Images by Magnetic Resonance	3
RADI 3040	Pathological Correlation by Magnetic Resonance	3
RADI 3050	Physics: Principles, Parameters, and Concepts of Magnetic Resonance	3
RADI 3060	Ethics and Law in Imaging Science	3
RADI 3070	Computers in Medical Imaging and Informatics	3
RADI 4010P	Clinical Internship in Computed Tomography	6
RADI 4020P	Clinical Internship in Magnetic Resonance	6
RADI 4030	Pre-Certification Seminar in Radiologic Technology, CT, and MRI	3
RADI 4040	Research Methods and Computer Literacy	3
RADI 4050	Educational Principles for Technologists	3

**94**

#### **TOTAL CREDITS**

**131**

#### **NOTES:**

- \*All general education courses with an asterisk and all core and major courses must

be approved with a minimum grade of "C", with the exception of practicum courses that must be approved with at minimum grade of "B".



## Associate's Degree in Dental Assistant with Expanded Functions

### OBJECTIVE

The Associate's Degree in Dental Assistant with Expanded Functions trains students in the theoretical and practical knowledge needed to work in a dental clinic or office through learning experiences in the classroom, labs, or lab simulations. Graduates of this program will be able to perform tasks delegated and supervised by a dentist, which require the application of acquired knowledge and skills in the areas of digital imaging, oral disease prevention, dental restoration, and infection control. In addition, they will be able to perform basic medical and dental insurance billing.

### PROGRAM COMPETENCIES

7. Communicate their ideas verbally, in writing, and non-verbally in an affirmative and efficient manner to patients and other personnel in the dental office or clinic.
8. Demonstrate knowledge in functions delegated and supervised by the dentist in areas of image digitalization, oral disease prevention, infection control, and dental insurance billing.
9. Identify solutions that respond to the patient's dental needs, based on screening and critical analysis of available information.
10. Logically apply required technological knowledge and skills during the practice of dental procedures in an office or clinic.
11. Promote the legal and professional ethics canons that include the phases of oral health promotion, education, and prevention in an empathic, humanistic, and non-discriminatory environment while facing a diverse population.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS:

25 Credits in General Education  
 3 Credits in Core Courses  
 47 Credits in Major Courses  
 3 Credits in Elective

### 78 Total Credits

### GENERAL EDUCATION:

BIOL 1010*	Introduction to Biology	3
SPAN 1010*	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
ENGL 1010*	Basic English I	3
ENGL 1020	Basic English II	3
HUMA 1010	Humanities I	
Or		
SOSC 1010	Social Sciences I	3
ITTE1031L	Computer Literacy and Laboratory	3
MATH 1010*	Basic Mathematics	3
SEMI 1001*	University Environment Seminar	1
		<b>25</b>

### CORE COURSES

BIOL 2000*	Human Anatomy and Physiology	3
		<b>3</b>

### MAJOR COURSES

DEAS 1101L	Dental Anatomy, Nomenclature and Laboratory	2
DEAS 1220	Oral Anatomy, Head and Neck	3
DEAS 1300	Dental Materials Sciences	2
DEAS 1311L	Dental Materials Sciences Laboratory	2
DEAS 1420	Digitizing Of Dental Images	3
DEAS 1421L	Digitizing Of Dental Images Laboratory	2
DEAS 1500**	Instruments and Clinical Sciences I	2
DEAS 1511L	Instruments and Clinical Sciences I Laboratory	2
DEAS 1600	Oral Pharmacology	3
DEAS 1811L	Oral Microbiology and Infections Control Lab	2
DEAS 2000	Expanded Functions in Restorative Pre-Clinic Science	2
DEAS 2011L	Expanded Functions in Restorative Pre-Clinic Science Lab	2



DEAS 2031	Expanded Functions Preventive Science Clinic Seminar	2
DEAS 2041P	Expanded Functions Preventive Science Clinic Practice*	2
DEAS 2055	Dental Assistant with Expanded Functions Integrative Seminar	2
DEAS 2061P	Expanded Functions Restorative Science Clinic Practice*	2
DEAS 2600	Instruments and Clinical Science II	2
DEAS 2611L	Instruments and Clinical Science II Laboratory	2
DEAS 2700	Histology, Embryology and Oral Pathology	2
DEAS 2920	Preventive Dental Treatment	2
DEAS 2921L	Preventive Dental Treatment Laboratory	2
MESE 2031L	Medical Billing, Electronic Record and Laboratory	2
		<b>47</b>
	<b>ELECTIVES</b>	<b>3</b>
	<b>TOTAL CREDITS</b>	<b>78</b>

- Upon graduation, it is required to take the licensure exam to obtain the Dental Assistant with Expanded Functions license issued by the Puerto Rico Board of Dental Examiners. For more information about this licensure, contact the Puerto Rico Health Professional Review Board, <https://orcps.salud.gov.pr/>.

#### NOTES:

- \*All general education courses with an asterisk and all core, major and electives courses must be passed with at least a "C" grade.
- \*\*This course includes the use of simulator.
- Course weeks may vary depending on the program offering, which has a total length of approximately 96 weeks.
- Before beginning internship, students must have completed all prerequisites of this internship course in accordance with the curriculum of the program.
- The Associate's Degree in Dental Assistant with Expanded Functions Practices are equivalent to two (2) internships practices of 180 hours each.
- For the internship courses all students will be required to present evidence of Negative Criminal Record Certificate (issued by the Puerto Rico Police Department), a health certificated issued by the Puerto Rico Health Department, and certification of Hepatitis vaccines, between others requirements.

## Associate's Degree in Applied Sciences in Cardiorespiratory Care

*This program is currently in a teach-out process and is not accepting new students. Reentry may be possible only if a student can complete the program within the teach-out period, subject to approval by the Vice President of Academic Affairs. Contact Academic Affairs department for information on the teach-out date for your program at your location.*

### OBJECTIVE

The Associate's Degree in Applied Sciences in Cardiorespiratory Care trains students in the understanding of the cardiorespiratory system's physiological processes. Students in this program will apply diverse diagnostic, evaluation, treatment, and rehabilitation techniques to patients with cardiopulmonary ailments. In addition, through lung function and sleeping disorder studies, they will employ skills for the identification and care of respiratory system pathologies for corresponding therapeutic management. Graduates of this program will apply basic and advanced respiratory care methods under medical orders, as established in the laws and regulations of the board which regulates the profession.

### PROGRAM COMPETENCIES

1. Develop theoretical and practical knowledge in their professional performance as cardiorespiratory care therapists, according to the corresponding procedures, regulations, and state and federal laws.
2. Logically and critically analyze information and procedures related to their professional field in different permissible situations in the prompt and safe execution of multiple cardiorespiratory care tasks.
3. Employ written, verbal, and non-verbal communication skills in an assertive and efficient manner when functioning as cardiorespiratory care therapists.
4. Handle technological equipment, software, and applications available in functions and procedures related to the tasks of the cardiorespiratory care therapist.
5. Demonstrate collaborative work with a high sense of responsibility, legal compliance, respect toward diversity, and good moral and

ethical judgment in their professional field as cardiorespiratory care therapists.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS:

22 Credits in General Education

19 Credits in Core Courses

39 Credits in Major Courses

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### 80 Total Credits

### GENERAL EDUCATION:

ENGL 1010*	Basic English I	3
ENGL 1020	Basic English II	3
ITTE 1031L	Computer Literacy and Laboratory	3
MATH 1010*	Basic Mathematics	3
SEMI 1001*	University Environment Seminar	1
SOSC 1010	Social Science I	3
SPAN 1010*	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
		<b>22</b>

### CORE COURSES:

BIOL 2010*	Anatomy and Physiology I	3
BIOL 2020*	Anatomy and Physiology II	3
CHEM 2031*	General Chemistry	3
MICR 1000*	Basic Microbiology	3
MICR 1011L*	Basic Microbiology Laboratory	1
PHYS 1001*	Physics Allied Health	3
PSYC 2510	Psychology	3
		<b>19</b>

### MAJOR COURSES:

CRCP 1011L	Fundamentals of Respiratory Care Laboratory	2
CRCP 1111L	Respiratory Care Clinical Pre-Practice Laboratory	1
CRCP 1200	Cardiopulmonary Anatomy and Physiology	3
CRCP 1300	Pharmacology for Respiratory Care	3
CRCP 1400	Electrocardiography	2
CRCP 2002	Cardiopulmonary Pathophysiology	3
CRCP 2004	Cardio Respiratory Care I	3
CRCP 2004L	Cardiorespiratory Care I	

	Laboratory	2
CRCP 2007	Mechanical Ventilation	3
CRCP 2007L	Mechanical Ventilation Laboratory	2
CRCP 2008	Advanced Cardiopulmonary Diagnosis	2
CRCP 2010	Neonatal and Pediatric Respiratory Care	2
CRCP 2011L	Advanced Cardiopulmonary Care and Laboratory	2
CRCP 2031L	Pulmonary Function Tests and Arterial Gases and Lab	3
CRCP 2021P	Cardiorespiratory Care I Practice	1
CRCP 2031P	Cardiorespiratory Care II Practice	1
CRCP 2041P	Cardiorespiratory Care III Practice	2
CRCP 2051	Cardiorespiratory Care Integrative Seminar	2
		<b>39</b>
<b>TOTAL CREDITS</b>		<b>80</b>

#### NOTES:

- \*All general education and core courses with an asterisk and all major courses must be passed with at least a "C" grade.
- Course weeks may vary depending on the program offering, which has a total length of approximately 96 weeks.
- For the internship courses all students will be required to present evidence of Negative Criminal Record Certificate (issued by the Puerto Rico Police Department), a health certificated issued by the Puerto Rico Health Department, certification of Hepatitis B (3 doses), and Influenza vaccines, between others requirements.
- Upon graduation, it's required to take the licensure exam issued by the Puerto Rico Board of Examiners of Respiratory Therapists. For more information about this licensure, contact the Puerto Rico Health Professional Review Board, <https://orcps.salud.gov.pr/>.

## Associate's Degree in Applied Sciences in Clinical Sonography

### OBJECTIVE

The Associate's Degree in Applied Sciences in Clinical Sonography trains students in the competencies needed to work as a diagnostic medical sonographer. Students will develop the required skills and knowledge in accordance with the regulatory and ethical framework governing the profession, within which diagnostic ultrasound imaging centers operate. They will correctly apply medical terminology and implement safety measures in the management and care of patients.

### PROGRAM COMPETENCIES

1. Evaluate images of observed anatomical structures for medical diagnostic purposes, properly using ultrasound equipment.
2. Correctly, effectively, and efficiently employ medical terminology, oral and written communication skills, and all other appropriate ways of interpersonal expression in their work setting.
3. Apply logical reasoning and knowledge of human anatomy and physiology according to the protocols of anomaly identification in body structures and patient handling.
4. Demonstrate skills in instrumental physics for the manipulation, operation, and general usage of sonographic equipment and instruments.
5. Exhibit ethical and moral behavior in the performance of their functions within a regulatory framework within which diagnostic (ultrasound) imaging centers in hospitals, clinics, and private offices operate.
6. Promote a respectful environment when handling patients from different populations at all times, as established in safety and confidentiality protocols.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS:

22 Credits in General Education  
18 Credits in Core Courses  
38 Credits in Major Courses

### 78 Total Credits

### GENERAL EDUCATION:

ENGL 1010*	Basic English I	3
ENGL 1020	Basic English II	3
ITTE 1031L	Computer Literacy and Laboratory	3
MATH 1010*	Basic Mathematics	3
SEMI 1001*	University Environment Seminar	1
SOSC 1010	Social Science I	3
SPAN 1010*	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
		<b>22</b>

### CORE COURSES:

BIOL 2010*	Anatomy and Physiology I	3
BIOL 2020*	Anatomy and Physiology II	3
BIOL 2030*	Sectional Anatomy	2
BIOL 2030I*	Sectional Anatomy Laboratory	1
PHYS 1001*	Physics Allied Health	3
PSYC 2510	Psychology	3
MESE 1010*	Medical Terminology	3
		<b>18</b>

### MAJOR COURSES:

SONO 1000	Introduction to Medical Sonography	2
SONO 1100	Ultrasound	3
SONO 1200	Patient Management and Care	2
SONO 1311I	Medical and Physical Instrumentation Ultrasound and Laboratory	3
SONO 1421I	Sonography Clinical Pre-Practice Laboratory	1
SONO 1511I	Abdominal Sonography and Laboratory	4
SONO 2000I	Gynecological and Obstetrical Sonography and Lab	4
SONO 2010	Vascular Sonography	3
SONO 2011I	Vascular Sonography Laboratory	2
SONO 2014I	Practice Seminar and Laboratory	4
SONO 2021p	Clinical Practice of Sonography I	1
SONO 2031P	Clinical Practice of Sonography II	1

SONO 2040I	Sonography of Superficial Structures and Laboratory	4
SONO 2041P	Clinical Practice of Sonography III	2
SONO 2051	Integrative Seminar of Sonography	2
		<b>38</b>
<b>TOTAL CREDITS</b>		<b>78</b>

**NOTES:**

- \*All general education and core courses with an asterisk and all major courses must be passed with at least a "C" grade.
- Course weeks may vary depending on the program offering, which has a total length of approximately 96 weeks.
- For the internship courses all students will be required to present evidence of Negative Criminal Record Certificate (issued by the Puerto Rico Police Department), a health certificated issued by the Puerto Rico Health Department, certification of Hepatitis B (3 doses), and Influenza vaccines, between others requirements.
- Upon graduation, it's required to take the licensure exam to obtain the Diagnostic Medical Sonographer (General) license issued by the Puerto Rico Examining Board for the Diagnostic Imaging and Treatment Radiologic Technologists. For more information about this licensure, contact the Puerto Rico Health Professional Review Board, <https://orcps.salud.gov.pr/>.

## Associate's Degree in Applied Sciences in Radiology Technology

### OBJECTIVE

The Associate's Degree in Applied Sciences in Radiology Technology trains students in the execution of radiological procedures. Students of this program will correctly and effectively apply medical terminology. In addition, they will implement safety measures in patient management and care. Graduates of this program will employ the skills necessary to perform in the workplace in compliance with the regulatory and ethical framework of the profession, within which diagnostic radiology imaging centers operate.

### PROGRAM COMPETENCIES

1. Apply theoretical and practical knowledge in their professional performance as radiological technologists to evaluate body structures by using radiological imaging equipment, following established protocols.
2. Logically and critically analyze information and procedures related to their professional field to address situations when handling patients or equipment during the process of radiological imaging.
3. Correctly and efficiently employ medical terminology in the work scenario with verbal and written communication skills, as well as other appropriate manners of interpersonal expression.
4. Use available technological and informative means for procedures related to equipment operation and research in their tasks as radiological technologists.
5. Demonstrate collaborative work skills with a high sense of responsibility and legal compliance within the regulatory frame of imaging centers, with respect for diversity and a good moral and ethical judgment in their professional field as radiological technologists.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC

University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS:

22 Credits in General Education

15 Credits in Core Courses

39 Credits in Major Courses

### 76 Total Credits

### GENERAL EDUCATION:

ENGL 1010*	Basic English I	3
ENGL 1020	Basic English II	3
ITTE 1031L	Computer Literacy and Laboratory	3
MATH 1010*	Basic Mathematics	3
SEMI 1001*	University Environment Seminar	1
SOSC 1010	Social Science I	3
SPAN 1010*	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
		<b>22</b>

### CORE COURSES:

BIOL 2010*	Anatomy and Physiology I	3
BIOL 2020*	Anatomy and Physiology II	3
MESE 1010*	Medical Terminology	3
PHYS 1001*	Physics Allied Health	3
PSYC 2510	Psychology	3
		<b>15</b>

### MAJOR COURSES:

RADI 1000	Fundamentals of Radiologic Sciences	2
RADI 1100	Radiographic Film Acquisition and Processing	2
RADI 1200	Principles of Radiographic Exposition	2
RADI 1311L	Radiologic Clinical Pre-Practice Laboratory	1
RADI 1411L	Radiologic Procedures I and Laboratory	3
RADI 1500	Sectional Anatomy	2
RADI 1600	Radiologic Protection	1
RADI 2009	Radiologic Physics	3
RADI 2011	Ethics in Radiologic Sciences	2
RADI 2011L	Patient Management and Care and Laboratory	2
RADI 2012	Basic Principles of Medical Pathology I	2
RADI 2021L	Radiologic Procedures II and Laboratory	2
RADI 2021P	Clinical Practice I	1
RADI 2013	Basic Principles of Medical Pathology II	2

RADI 2016	Critique Radiology	3
RADI 2031L	Radiologic Procedures III and Laboratory	2
RADI 2031P	Clinical Practice II	1
RADI 2035	Principles of Diagnostic Imaging Modalities	2
RADI 2040	Pharmacology and Medication Administration in Diagnostic Imaging	2
RADI 2041P	Clinical Practice III	2
		<b>39</b>
<b>TOTAL CREDITS</b>		<b>76</b>

#### NOTES:

- \*All general education and core courses with an asterisk and all major courses must be passed with at least a "C" grade.
- Course weeks may vary depending on the program offering, which has a total length of approximately 96 weeks.
- For the internship courses all students will be required to present evidence of Negative Criminal Record Certificate (issued by the Puerto Rico Police Department), a health certificated issued by the Puerto Rico Health Department, certification of Hepatitis B (3 doses), and Influenza vaccines, between others requirements.
- Upon graduation, it's required to take the licensure exam to obtain the Radiology Technician license issued by the Puerto Rico Examining Board for the Diagnostic Imaging and Treatment Radiologic Technologists. For more information about this licensure, contact the Puerto Rico Health Professional Review Board, <https://orcps.salud.gov.pr/>.



# Associate's Degree in Medical Billing and Coding

## OBJECTIVE

The associate degree program in Medical Billing and Coding will train students in the application of coding rules and billing procedures in outpatient, inpatient, and dental healthcare settings. Graduates of this program will demonstrate knowledge and skills for accurately applying diagnostic, service, and procedure codes using the updated manuals of the International Statistical Classification of Diseases and Related Health Problems (ICD), Current Procedural Terminology (CPT), Current Dental Terminology (CDT), and Healthcare Common Procedure Coding System (HCPCS). They will employ the necessary processes for efficient billing using electronic billing programs, following applicable policies and regulations. Furthermore, they will develop professional competencies for effective interaction with clients and work teams in healthcare organizations and insurance companies, in accordance with current state and federal laws.

## PROGRAM COMPETENCIES

1. Apply basic knowledge and practical skills in coding and billing effectively to provide medical, hospital, and dental services in line with emerging technological advancements.
2. Effectively and assertively communicate their ideas and knowledge in their interaction with clients and work teams in healthcare organizations and insurance companies, both orally and in writing, in Spanish and English.
3. Employ critical judgment in the creation, presentation, and analysis of medical reports and records, in the application of compliance strategies for making informed decisions based on standards, as well as in the ethical and legal aspects applicable to the profession.
4. Apply technological and information literacy competencies for the efficient use of technology equipment, software, and emerging technologies in electronic coding and billing, according to standards that ensure the security and confidentiality of information.
5. Demonstrate personal and professional attitudes in their work performance, free from prejudice, and in compliance with current ethical standards, and state and federal laws, that enable the interpretation of data and information necessary for accurate coding and effective billing to ensure the collection of claims for services rendered.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

22 Credits in General Education

41 Credits in Major Courses

## 63 Total Credits

### GENERAL EDUCATION:

ENGL 1010*	Basic English I	3
ENGL 1020	Basic English II	3
ITTE 1031L*	Computer Literacy and Lab	3
HUMA 1010	Humanities I	3
MATH 1010*	Basic Mathematics	3
SPAN 1010*	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
SEMI 1010*	Transition to University Life and Professional Training Seminar	1
		<b>22</b>

### MAJOR COURSES:

BIOL 1200	Fundamentals of Anatomy and Physiology	3
BUMA 1050	Introduction to Entrepreneurship	3
MESE 1010	Medical Terminology	3
MEBC 1000*	Introduction to Billing	3
MEBI 1160L**	Electronic Medical Record and Laboratory	3
MEBC 1011L**	Anatomy, Nomenclature with Codes and Dental Billing and Laboratory	4
MEBC 1100*	Diagnostic Coding (ICD-10-CM)	3
MEBC 1120*	Coding Procedures I (CPT)	3
MEBC 1030L**	Electronic Medical Billing and Laboratory	3
MEBC 1130*	Coding Procedures II (HCPCS)	3
MEBC 1300**	Hospital Procedure Coding (PCS)	3
MEBC 2010**	Auditing and Legal Aspects in Medical Billing and Coding	4
MEBC 2020L**	Integrative Seminar: Medical Billing and Coding and Laboratory	3
		<b>41</b>
<b>TOTAL CREDITS</b>		<b>63</b>

### NOTES:

- \*All general education and core courses with an asterisk and all major courses must be passed with at least a "C".
- \*\*This course includes the use of simulator.
- Course weeks may vary depending on the program offering, which has a total length of approximately 80 weeks.



## Associate's Degree in Pharmacy Technician

### OBJECTIVE

The Associate's Degree in Pharmacy Technician trains students in the knowledge and competencies required by the profession under the supervision of an authorized licensed pharmacist. Students will apply their theoretical and practical knowledge in the preparation, compounding, and dispensing of medications and the administration of a pharmacy's operations. Graduates of this program will be able to perform as pharmacy technicians in different public and private scenarios, such as institutional pharmacies (hospitals), community pharmacies, wholesale drugstores, and health insurance companies, among others, in compliance with the laws and standards of the profession and the Puerto Rico Board of Pharmacy.

### PROGRAM COMPETENCIES

1. Apply theoretical and practical knowledge to functions related to the preparation of mathematic calculations, composition and dispensing of medications delegated by an authorized licensed pharmacist, according to the regulations, standards, and laws of the Puerto Rico Board of Pharmacy.
2. Logically and critically analyze information and procedures related to their professional field.
3. Develop written, verbal, and non-verbal communication skills effectively and assertively to exert their functions in the professional field.
4. Manage the technological software, applications, and equipment available in processes related to the tasks of the pharmacist technician.
5. Demonstrate collaborative work skills with a high sense of responsibility, legal compliance, respect toward diversity, and good moral and ethical judgment in their professional field as pharmacy technicians.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS:

- 25 Credits in General Education
- 7 Credits in Core Courses
- 41 Credits in Major Courses
- 3 Credits in Elective Courses

### 76 Total Credits

### GENERAL EDUCATION

BIOL 1010	Introduction to Biology	3
ENGL 1010*	Basic English I	3
ENGL 1020	Basic English II	3
ITTE 1031L	Computer Literacy and Laboratory	3
MATH 1010*	Basic Mathematics	3
HUMA 1010	Humanities I	
or		
SOSC 1010	Social Sciences I	3
SEMI 1001*	University Environment Seminar	1
SPAN 1010*	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
		<b>25</b>

### CORE COURSES

BIOL 2000*	Human Anatomy and Physiology	3
CHEM 1010*	General Chemistry for Health Sciences	3
CHEM 1011L*	General Chemistry for Health Sciences Laboratory	1
		<b>7</b>

### MAJOR COURSES:

PHAR 1000	Pharmaceutical Theory	3
PHAR 1050	Pharmaceutical Chemistry	3
PHAR 1120	Pharmaceutical Mathematics	4
PHAR 2051L	Composition and Dispensing Laboratory	2
PHAR 2250	Pharmaceutical Legislation	3
PHAR 2350	Posology	3
PHAR 2361L	Pharmacy Administration Laboratory	2
PHAR 2560	Pharmacology I	3
PHAR 2570	Pharmacology II	3
PHAR 2580	Pharmacology III	3
PHAR 2700	Pharmacy Internship Seminar I	1
PHAR 2800	Pharmacy Internship Seminar II	1
PHAR 2900	Pharmacy Internship Seminar III	1
PHAR 2920	Pharmacy Integrated Seminar	3
PHAR 2711P	Pharmacy Internship I	2

PHAR 2811P Pharmacy Internship II	2
PHAR 2911P Pharmacy Internship III	2
	<b>41</b>
<b>ELECTIVES</b>	<b>3</b>
<b>TOTAL CREDITS</b>	<b>76</b>

**NOTES:**

- \*All general education and core courses with an asterisk and all major courses must be passed with at least a "C".
- Course weeks may vary depending on the program offering, which has a total length of approximately 96 weeks.
- Before beginning internship, students must have completed all prerequisites of this internship course in accordance with the curriculum of the program.
- The Associate's Degree in Pharmacy Technician Practice is equivalent to two (2) internships of 350 hours each and one (1) of 300 hours.
- For the internship courses all students will be required to present evidence of Negative Criminal Record Certificate (issued by the Puerto Rico Police Department), between others requirements.
- Upon graduation, it's required to take the licensure exam to obtain the Pharmacy Technician license issued by the Puerto Rico Board of Pharmacy. For more information about this licensure, contact the Puerto Rico Health Professional Review Board, <https://orcps.salud.gov.pr/>.

# Associate's Degree in Physical Therapist Assistant

## OBJECTIVE

The program aims to prepare the student as a physical therapist assistant under the supervision of a physical therapist. The curriculum integrates theoretical knowledge, the development of technical skills and clinical experiences necessary for the formation of a competent professional with ethical attitudes who will be committed to the profession and society.

## PROGRAM COMPETENCIES

1. Exhibit the theoretical knowledge, behavior and clinical skills necessary for the entry-level practice providing safe, effective, and efficient services as a physical therapist assistant under the direction of a physical therapist.
2. Demonstrate effective oral, written, and non-verbal communication when interacting with patients and other health care providers and documenting interventions.
3. Demonstrate logical organization and adaptation of treatment protocols recommended by the physical therapist to meet the individual needs of each patient.
4. Use critical thinking, self-reflection, and creativity in solving problems and making clinical decisions that respond to the immediate care needs of patients.
5. Understand and comply with the laws, guidelines, and standards established by professional and governmental agencies that regulate the practice of physical therapy, always exhibiting ethical and legal behavior according to the demands of the discipline and clinical setting.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of

the Spanish language.

## MINIMUM REQUIREMENTS

22 Credits in General Education

12 Credits in Core Courses

43 Credits in Major Courses

## 77 Total Credits

## GENERAL EDUCATION:

ENGL 1010	Basic English I	3
ENGL 1020	Basic English II	3
SOSC 1010	Social Sciences I	3
SOSC 1020	Social Sciences II	3
MATH 1010	Basic Mathematics	3
SPAN 1010	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
SEMI 1010	Transition to University Life and Professional Training Seminar	1
		<b>22</b>

## CORE COURSES:

BIOL 2010	Anatomy and Physiology I	3
BIOL 2020	Anatomy and Physiology II	3
ITTE 1031L	Computer Literacy and Laboratory	3
PSYC 2510	Psychology	3
		<b>12</b>

## MAJOR COURSES:

THER 1011L	Introduction to Physical Therapist Assistant and Lab	3
THER 1041L	Modalities of Intervention of Electrotherapy, Physical Agents and Laboratory	3
THER 1040L	Functional Movement I and Laboratory	4
THER 1050L	Functional Movement II and Laboratory	4
THER 1060L	Therapeutic Exercises and Laboratory	4
THER 2040	Physical Dysfunctions	3
THER 2041L	Rehabilitation Concepts, Techniques and Laboratory	3
THER 2011L	Daily Living Activities and Laboratory	3
THER 2050L	Advanced Rehabilitation Techniques for Complex Patient Conditions and Laboratory	4
THER 2161P	Physical Therapist Assistant Practice I	3
THER 2171P	Physical Therapist Assistant Practice II	6
THER2181	Integrating Seminar on Physical Therapist Assistant	3

**43**

## TOTAL CREDITS

**77**

**NOTES:**

- \*All general education, core courses and all major courses must be passed with at least a "C" grade, except for the clinical practices that must be passed with at least "B" grade.
- Course weeks may vary depending on the program offering, which has a total length of approximately 80 weeks.
- Before beginning internship, students must have completed all prerequisites of the internship courses in accordance with the curriculum of the program.
- The Practices are equivalent to a total of 570 hours. THER 2161P is 190 hours and THER 2171P is 380 hours.
- Upon graduation, it's required to take the licensure exam to obtain the Physical Therapy Assistant license issued by the Puerto Rico Board of Physical Therapy. For more information about this licensure, contact the Puerto Rico Health Professional Review Board, <https://orcps.salud.gov.pr/>.
- This program is not currently offered for new students.

# Associate's Degree in Optical Sciences

## OBJECTIVE

The associate degree program in Optical Sciences will prepare students with basic clinical knowledge and skills in optical sciences to provide services grounded in scientific principles and in accordance with current technological advancements. Graduates of this program will demonstrate the abilities required for performing roles in optical offices and/or optical laboratories. Moreover, they will develop professional competencies for reading and interpreting prescriptions from optometrists or ophthalmologists and for identifying the best alternatives in frames, ophthalmic lenses, and treatments for patients.

## PROGRAM COMPETENCIES

1. Apply scientific knowledge and basic clinical skills in optical sciences for the operation and proper management of optical offices and laboratories.
2. Communicate their ideas and interpretation of optometrists' or ophthalmologists' prescriptions, both orally and in writing, to patients, colleagues, and other members of the allied health team.
3. Analyze information and procedures related to their professional field logically and critically to select the best treatment alternatives and accessories for the patient's visual health.
4. Effectively utilize technological equipment in procedures offered in optical offices and laboratories, as well as available computer resources in information analysis and interpretation.
5. Demonstrate sensitivity, accuracy, and professionalism in patient service through proper attention to their needs, respect for human dignity, and appropriate handling of ethical and legal matters.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

25 Credits in General Education  
9 Credits in Core Courses  
46 Credits in Major Courses

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**80 Total Credits**

## GENERAL EDUCATION:

ENGL 1010*	Basic English I	3
ENGL 1020	Basic English II	3
SEMI 1010*	Transition to University Life and Professional Training Seminar	1
SPAN 1010*	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
HUMA 1010	Humanities I	3
BIOL 1010	Introduction to Biology	3
MATH 1010*	Basic Mathematics	3
ITTE 1031L	Computer Literacy and Laboratory	3
		<b>25</b>

## CORE COURSES:

PHYS 1020	Introduction to Physics	3
BUAD 2250	Human Relations	3
BUMA 1050	Introduction to Entrepreneurship	3
		<b>9</b>

## MAJOR COURSES:

OPTI 2000	Anatomy and Physiology of the Eye	3
OPTI 2020	Ophthalmic Materials I	3
OPTI 2020L	Ophthalmic Materials I: Laboratory	1
OPTI 2030	Contact Lenses	3
OPTI 2030L	Contact Lenses: Laboratory	2
OPTI 2010	Principles of Physical Optics	3
OPTI 2040	Ophthalmic Materials II	2
OPTI 2040L	Ophthalmic Materials II: Laboratory	2
OPTI 2050L	Medical Billing for Optical Sciences and Laboratory	3
OPTI 2060	Vision Abnormalities	3
OPTI 2150L	Pre-Internship Laboratory in Frame Sizing	2
OPTI 2110	Prescription Dispensing I	3
OPTI 2110L	Prescription Dispensing I: Laboratory	2
OPTI 2100	Laws Regulating the Optic Practice	2
OPTI 2160	Prescription Dispensing II	3
OPTI 2120	Clinical Practice and Seminar	9
		<b>46</b>
<b>TOTAL CREDITS</b>		<b>80</b>

## NOTES:

- \*All general education courses with an asterisk and all core and major courses must be approved with a minimum grade of "C", with the exception of practicum courses that must be approved with at minimum grade of "B".

***UNDERGRADUATE  
ALLIED HEALTH SCIENCES  
COURSE DESCRIPTIONS***

**ANAT 2040: Anatomy and Physiology of the Heart: 2 credits**

In this course, students will recognize the cardiac anatomical structures and their functioning in the human heart. They will apply appropriate cardiac terminology. They will identify the proper positioning of cardiac structures and the anatomical relationship of adjacent structures. (Pre-requisite: BIOL 1010)

**BIOL 1200: Fundamentals of Anatomy and Physiology: 3 credits**

In this course, students will determine the importance of the organization of the human body and the different systems that make it up. They will analyze the anatomy of the various body systems, their constituent organs, and their basic functions. In addition, they will examine the relationship between body systems and their proper functioning, as well as the effect of pathologies on the organs.

**BIOL 2000: Human Anatomy and Physiology: 3 credits**

In this course, students will examine the basic concepts of human anatomy and physiology. They will analyze the structures of the systems of the human body, as well as the relationship between these systems and the importance of their proper functioning. Additionally, they will distinguish the most common diseases, anomalies, and disorders that affect each system. (Pre-requisite: BIOL 1010)

**BIOL 2010: Anatomy and Physiology I: 3 credits**

In this course, students will discuss the basic concepts of human anatomy and physiology. They will analyze the organizational levels, emphasizing on the structure and functioning of the cell, the four basic types of tissue, and the integumentary, skeletal, muscular, and nervous systems of the human body. In addition, they will examine the most common pathologies in these systems.

**BIOL 2020: Anatomy and Physiology II: 3 credits**

In this course, students will analyze the structure and functioning of the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems. At the same time, they will discuss the function of their constituent organs.

In addition, they will examine the most common pathologies in these systems. (Pre-requisite: BIOL 2010)

**BIOL 2030: Sectional Anatomy: 2 Credits**

In this course, students will explain the functioning of the human body systems and the organs that comprise it. In addition, they will differentiate the levels of structural organization that make up the human body and the relationship between them. They will also interpret the basic concepts of computerized tomography image acquisition, magnetic resonance imaging and ultrasound. (Pre-requisites: BIOL 2010, BIOL 2020) (Co-requisite: BIOL 2030L)

**BIOL 2030L: Sectional Anatomy Laboratory: 1 Credit**

In this course, students will identify the function of the systems and the organs that comprise the human body. In addition, they will analyze computerized tomography, magnetic resonance, and ultrasound images. They will also explain the relationships between the structures located in the brain, the thorax, the abdomen, and the pelvis. (Pre-requisites: BIOL 2010, BIOL 2020) (Co-requisite: BIOL 2030)

**BUAD 2250: Human Relations: 3 credits**

This course focuses on how individuals work within organizations and how they can be motivated to collaborate more harmoniously. It covers the study of organizational behavioral models, communication, employee stressors, discipline, equal opportunities, social ethics, sexual harassment, and self-affirmation.

**BUMA 1050: Introduction to Entrepreneurship: 3 credits**

In this course, students will analyze the general aspects, techniques and basic skills needed to develop a company. They will justify the planning and development of a business plan. Additionally, they will explain and develop an ethical and social conscience that will allow them to have good performance in the business world.

**CHEM 1010: General Chemistry for Health Sciences: 3 credits**

In this course, students will analyze the properties and changes of matter as well as its anatomic structure. In addition, they will examine



the formation of chemical bonds and different chemical reactions. Furthermore, they will evaluate different organic compounds, along with as the structure and function of biological molecules. *(Co-requisite: CHEM 1011L) (Pre-requisite: MATH 1010)*

**CHEM 1011L: General Chemistry for Health Sciences Laboratory: 1 credit**

In this course, students will apply the safety rules in the chemistry lab when performing experiments and handling laboratory instruments. Through a variety of experiments, they will investigate matter properties and changes, mixture separation methods, the molecular geometry of a compound, as well as ion and pH indicators in aqueous solutions. Also, students will evaluate different chemical reactions and factors that alter the kinetics of the reaction. Finally, they will analyze the equivalence point in an acid-base titration, as well as the properties and chemical reactions in organic compounds.

*(Co-requisite: CHEM 1010) (Pre-requisite: MATH 1010)*

**CHEM 2031: General Chemistry: 3 credits**

In this course, students will analyze the classification of matter, the atomic structure, and the formation of chemical bonds, as well as the measurement systems used in chemistry. They will differentiate the types of chemical reactions and solutions. In addition, students will examine different organic compounds and biological molecules. *(Pre-requisites: MATH 1010)*

**CRCP 1011L: Fundamentals of Respiratory Care and Lab: 2 credits**

In this course, students will analyze the historical events and primary aspects related to respiratory care, as well as the structure and function of associations and organizations related to the profession. They will apply the necessary skills for basic and advanced patient assessment in a respiratory care unit. Students will demonstrate isolation and patient handling techniques, anatomical points identification for taking reference measurements, and proper stethoscope usage. Likewise, they will demonstrate strategies for the adequate handling of oxygen, humidity, and aerosol therapies, both in routine and emergency situations. This course includes the use of simulator. *(Pre-requisites:*

*PHYS 1001, BIOL 2010) (Co-requisite: BIOL 2020, CRCP 1111L)*

**CRCP 1111L: Respiratory Care Clinical Pre-Practice Lab: 1 credit**

In this course, students will examine the fundamentals of respiratory care. Furthermore, students will identify the skills required for basic and advanced patient evaluations. Finally, students will apply proper oxygen therapy management in both routine and emergency situations.

*(Pre-requisites: PHYS 1001, BIOL 2010) (Co-requisite: BIOL 2020, CRCP 1011L)*

**CRCP 1200: Cardiopulmonary Anatomy and Physiology: 3 credits**

In this course, students will analyze the anatomy of organs that make up the cardiopulmonary system, such as the heart, blood vessels, lungs, and respiratory tract. Additionally, they will examine physiological processes performed by the organs of the cardiopulmonary system. Students will likewise integrate cardiopulmonary system physiological processes and pathologies such as hypertension and pulmonary diseases. This course includes the use of simulator. *(Pre-requisites: CRCP 1011L, 1111L)*

**CRCP 1300: Pharmacology for Respiratory Care: 3 credits**

In this course, students will analyze basic and advanced cardiopulmonary pharmacology principles, and their usefulness in treating patients with respiratory conditions. They will interpret the indications, contraindications, and dangers associated with pharmacological agents, as well as receptor and cellular action theories. Likewise, students will apply mathematical procedures used to calculate drug doses for adult, pediatric, and neonatal patients. This course includes the use of a simulator. *(Pre-requisite: CHEM 2031)*

**CRCP 1400: Electrocardiography: 2 credits**

In this course, students will analyze the anatomy of the heart and the functioning of electrocardiographic tracing. Likewise, they will effectively evaluate electrocardiographic nomenclature and configuration. Additionally, students will determine treatment modalities according to electrocardiogram findings. This course includes the use of simulator. *(Pre-*



*requisites: CRCP 1011L, 1111L)*

**CRCP 2002: Cardiopulmonary Pathophysiology: 3 Credits**

In this course, students will evaluate the different clinical manifestations of cardiorespiratory pathophysiologic conditions. In addition, they will analyze the components of cardiorespiratory pathophysiology. Lastly, students will explain the different cardiorespiratory diseases and anomalies. This course includes the use of simulator. *(Pre-requisite: CRCP 2000, 2001 or CRCP 1011L, 1111L)*

**CRCP 2004: Cardio Respiratory Care I: 3 Credits**

In this course, students will examine the basic and advanced techniques for lung expansion and bronchial hygiene therapy, as well as those for respiratory airway management. They will analyze the management of critically ill patients. They will evaluate different therapeutic modalities for the management of a patient in response to the appropriate treatment.

*(Pre-requisite: CRCP 2000, 2001 or CRCP 1011, 1111L) (Co-requisite: CRCP 2004L)*

**CRCP 2004L: Cardio Respiratory Care I Laboratory: 2 Credits**

In this course, students will apply basic and advanced techniques for hyperinflation therapy, chest physiotherapy, and respiratory airway management, with emphasis on management concerning critically ill patients. They will demonstrate assembly and preparation methods, the correct use of lung expansion and bronchial hygiene therapy equipment, as well as the management of an artificial airway. They will employ therapeutic modalities in accordance with the patient's needs.

*(Pre-requisite: CRCP 2000, 2001 or CRCP 1011, 1111L) (Co-requisite: CRCP 2004)*

**CRCP 2007: Mechanical Ventilation: 3 Credits**

In this course, students will evaluate the use of mechanical ventilation according to the patient's need. They will apply basic and advanced modalities of ventilation support through a simulator. Additionally, students will implement techniques for the weaning and extubation of a patient on mechanical ventilation. (This course includes the use of a simulator.) *(Prerequisites:*

*CRCP 2013 or CRCP 1011L, 1111L, 1200, 2002)*  
*(Co-requisite: CRCP 2007L)*

**CRCP 2007L: Mechanical Ventilation Laboratory: 2 Credits**

In this course, students will illustrate the basic and advanced modalities of ventilation support through a simulator. They will apply the use of mechanical ventilation according to the patient's need. Additionally, students will employ techniques for the weaning and extubation of a patient on mechanical ventilation. *(Prerequisites: CRCP 2013 or CRCP 1011L, 1111L, 1200, 2002)*  
*(Co-requisite: CRCP 2007)*

**CRCP 2008: Advanced Cardiopulmonary Diagnosis: 2 Credits**

In this course, students will analyze advanced laboratory processes and metabolic analyses of the cardiopulmonary system. In addition, they will evaluate the different advanced cardiopulmonary diagnoses. Furthermore, they will examine cardiopulmonary equipment, as well as its use and management in patient care. Lastly, they will determine sleep apnea types and the recommended equipment for them. This course includes the use of simulator. *(Pre-requisites: CRCP 2000, 2001, 2002 or CRCP 1011L, 1111L, 1200)*

**CRCP 2010: Neonatal and Pediatric Respiratory Care: 2 Credits**

In this course, students will examine basic and advanced concepts of neonatal and pediatric respiratory care patients. Furthermore, they will evaluate programs and device applications for respiratory care management. In the same manner, they will classify different treatments and diagnoses for neonatal and respiratory care children. Lastly, they will analyze different respiratory emergency situations for the execution of the most appropriate treatment. *(Pre-requisite: CRCP 2000, 2002, 2004 or CRCP 1011L, 1111L, 1200, 2002)*

**CRCP 2011: Seminar: 2 Credits**

This course is designed to study specialized topics concerning the respiratory therapist. The topics discussed include pulmonary rehabilitation, job search procedures and employment retention. It also prepares the student for the Puerto Rico and NBRC board exams. It also includes practice of test questions for the board test and medical

lectures. The course consists of 30 didactic hours.  
(*Pre-requisite: CRCP 2004*)

**CRCP 2011L: Advanced Cardiopulmonary Care and Laboratory: 2 credits**

In this course, students will integrate advanced resuscitation measures in the management and treatment of critically ill patients. They will analyze the data detected related to cardiac electrical activity by means of an electrocardiogram. They will demonstrate cardiopulmonary treatments in adult patients in emergency room and intensive care unit areas. In addition, they will develop skills for the appropriate management of emergencies, specialized treatments, and post-resuscitation care. (*Pre-requisites: CRCP 1011L, 1111L, 1200, 2002*)

**CRCP 2021P: Cardiorespiratory Care I Practice: 1 credit**

In this course, students will physically evaluate adult and pediatric patients. Furthermore, they will apply basic and advanced techniques for therapeutic procedures. Likewise, they will integrate techniques for administering hyperinflation therapy and physical chest therapy, as well as handling the respiratory airways as they relate to cardiorespiratory care patients. (*Pre-requisites: CRCP 1011L, 1111L, 1200*)

**CRCP 2031L: Pulmonary Function Tests and Arterial Gases and Laboratory: 3 credits**

In this course, students will evaluate advanced aspects of cardiorespiratory care with emphasis in the performance and analysis of diagnostic lung function tests and arterial gas taking. In addition, they will analyze specific lung conditions according to test results. Likewise, students will examine the degree of lung deterioration and respiratory failure caused by these diseases. This course includes the use of simulator.

(*Pre-requisites: CRCP 1011L, 1111L, 1200, 2002*)

**CRCP 2031P: Cardiorespiratory Care II Practice: 1 credit**

In this course students will physically assess adult and pediatric patients. Furthermore, they will integrate basic and advanced techniques for diagnostic procedures. Likewise, they will combine techniques for performing and interpreting pulmonary function tests with all

their parts, as well as arterial blood gas tests.

(*Pre-requisite: CRCP 2021P*)

**CRCP 2041P: Cardiorespiratory Care III Practice: 2 credits**

In this course, students will physically assess adult, pediatric, and neonatal patients. They will apply basic and advanced techniques for diagnostic and therapeutic procedures. Likewise, they will integrate techniques for performing different procedures, such as oxygen, humidity, aerosol, and physical chest therapies, arterial blood gas tests, lung function tests, ventilatory support, among others. (*Pre-requisite: CRCP 2031P*)

**CRCP 2051: Integrative Seminar in Cardiorespiratory Care: 2 credits**

In this course, students will discuss specialized topics related to clinical protocols for a patient's respiratory care and pulmonary rehabilitation. They will develop a pulmonary rehabilitation program to improve the quality of life of patients with obstructive, restrictive, and cardiac diseases. Also, students will apply techniques for job search and retention in the discipline of cardiorespiratory care in Puerto Rico. In addition, they will review topics related to evaluation, diagnosis, and treatment in respiratory care. This course includes the use of a simulator. (*Pre-requisites: CRCP 1011L, 1111L, 1200, 2021P, 2031P*)

**DEAS 1101L: Dental Anatomy, Nomenclature and Laboratory: 2 credits**

In this course, students will analyze different anatomical structures of teeth, the oral cavity, and dental abnormalities affecting enamel and dentin. Likewise, they will classify primary (deciduous) and permanent teeth using different dental numbering systems, such as the Universal, Palmer, and FDI (World Dental Federation) systems. Additionally, students will compare different anatomical structures of primary, permanent maxillary, and mandibular teeth. Finally, they will create wax anatomical models of different permanent teeth. (*Co-requisite: BIOL 1010*)

**DEAS 1220: Oral Anatomy, Head and Neck: 3 credits**

In this course, students will analyze different planes and regions of the head and neck region of the human body. They will determine parts and

functions of muscular, skeletal, nervous, lymphatic, vascular, and glandular systems, temporomandibular articulation, and the correlation between these structures and the oral cavity. Students will likewise examine irrigation and drainage structures in the oral cavity, cranial pairs, and salivary gland and saliva function. This course includes the use of simulator. *(Pre-requisites: BIOL 1010, DEAS 1101L) (Co-requisite: BIOL 2000)*

**DEAS 1300: Dental Materials Sciences: 2 credits**

In this course, students will learn basic concepts related to the chemical and physical properties of dental materials. Furthermore, they will justify the use of dental materials in the field of odontology. Additionally, students will apply techniques for the manipulation of dental materials. They will likewise implement safety measures required for the use and handling of dental materials. This course includes the use of simulator. *(Co-requisite: DEAS 1311L)*

**DEAS 1311L: Dental Materials Sciences Laboratory: 2 credits**

In this course, students will identify the different materials used in a dental office. They will examine the properties of the different materials, as well as the chemical and physical reactions that occur upon mixing them. In addition, they will distinguish the adequate management of dental materials before, during, and after procedures. Furthermore, they will prepare the mixes of the materials used in a dental office according to adequate procedures and safety measures. *(Co-requisite: DEAS 1300)*

**DEAS 1420: Digitizing of Dental Images: 3 credits**

In this course, students will analyze the origin, development, and evolution of x-ray equipment, as well as the different protection strategies for the patient and operator before, during, and after exposure. In addition, they will contrast the different intraoral and extraoral x-ray machines, and the instruments and films used for x-ray imaging. Students will integrate the concepts of infection control in the execution of x-ray techniques during their processing, as well as the steps for x-ray imaging assembly. Finally, they will evaluate radiographic errors and their causes, as well as the anatomical landmarks and oral

pathologies that can be observed in dental radiographies. This course includes the use of simulator.

*(Pre-requisites: DEAS1101L, DEAS 1220) (Co-requisite: DEAS 1421L)*

**DEAS 1421L: Digitizing of Dental Images Laboratory: 2 credits**

In this course, students will analyze basic dental radiology concepts, the digitization of dental imaging and conventional dental radiology, as well as the safety, protection, and infection control measures during x-ray exposure. They will compare photographic processing procedures, as well as the different kinds of dental radiography according to usage and the relevant anatomical area. They will demonstrate proficiency in taking conventional and digital x-rays with mannequins, as well as the identification of the observed anatomical structures and radiographic errors. *(Pre-requisites: DEAS 1101L, DEAS 1220) (Co-requisite: DEAS 1420)*

**DEAS 1500: Instruments and Clinical Sciences I: 2 credits**

In this course, students will discuss basic concepts of four-handed dentistry. They will relate dental instruments to their respective procedures, as used in clinical odontology. Students will describe the function of different equipment used in the dental office. Additionally, they will explain different preventive and restorative procedures performed in general odontology. This course includes the use of simulator. *(Pre-requisites: DEAS 1101L, DEAS 1300, DEAS 1311L) (Co-requisite: DEAS 1220, DEAS 1511L, DEAS 1811L)*

**DEAS 1511L: Instruments and Clinical Sciences I Laboratory: 2 credits**

In this course the students will examine the instruments and equipment used by the dentist in various dental procedures. They apply the process of universal precautions, disinfection unit, and placement of protective barriers and disposal of biomedical waste. Students identify the equipment and instruments according to dental procedures. In addition, they will examine different clinical procedures in the area of restoration and prevention. *(Pre-requisites: DEAS 1101L, DEAS 1300, DEAS 1311L) (Co-requisite: DEAS 1220, DEAS 1500, DEAS 1811L)*

**DEAS 1600: Oral Pharmacology: 3 credits**

In this course, students will analyze the basic concepts and processes of oral pharmacology and its evolution throughout history, as well as its applicability in odontology. They will identify the medications used in odontology by their commercial and generic names, therapeutic category, indications, contraindications, adverse reactions, and mechanisms of action. Students will also evaluate the dosage, available commercial presentations, common interactions, auxiliary labels, and medication storage. Furthermore, they will determine the effect of different eating disorders in oral health and the oral hygiene products available. This course includes the use of simulator. *(Pre-requisites: BIOL 1010, BIOL 2000, DEAS 1811L)*

**DEAS 1811L: Oral Microbiology & Infections Control Laboratory: 2 credits**

In this course, students will examine different microorganisms which cause oral disease, using different laboratory equipment and staining techniques. They will explain basic concepts of general microbiology and the pathogenesis of microbial diseases in human beings. Students will identify the importance of the immunological system in defense against microbial disease and the necessity of maintaining oral health in optimal condition. They will also apply different infection control techniques in odontological practice. *(Pre-requisites: BIOL 1010, DEAS 1101L) (Co-requisite: BIOL 2000, DEAS 1220)*

**DEAS 2000: Expanded Functions in Restorative Pre-Clinic Science: 2 credits**

In this course, students will analyze the basic concepts of odontology such as four-handed dentistry. They will examine the manipulation techniques of cements and coatings, classification of cavities, anatomical structures, and isolation methods following established protocols. Students will evaluate different techniques for developing images, taking X-rays, and using radiographic positioners. They will explain the protocols for amalgam restorations, the use of drill burs, abrasive rubber heads, and rotary tools. This course includes the use of simulator. *(Pre-requisites: DEAS 1101L, DEAS 1220, DEAS 1300, DEAS 1311L, DEAS 1420, DEAS 1421L, DEAS 1500, DEAS 1511L, DEAS 1811L, DEAS 2600, DEAS 2611L, DEAS 2700, DEAS 2920, DEAS 2921L)*

*(Co-requisites: DEAS 2011L, DEAS 2031, DEAS 2041P)*

**DEAS 2011L: Expanded Functions in Restorative Pre-Clinic Science Laboratory: 2 credits**

In this course, students will implement knowledge, principles, and manual skills in four-handed dentistry. They will carry out dental printings and study models, as well as placement, festooning, and polishing procedures for dental restorations. They will demonstrate proficiency in the manipulation and usage of dental cements and sealants, as well as in the usage of dental instruments on different procedures such as absolute isolation, matrix band placement, and Class II cavity restoration.

*(Pre-requisites: DEAS 1101L, DEAS 1220, DEAS 1300, DEAS 1311L, DEAS 1420, DEAS 1421L, DEAS 1500, DEAS 1511L, DEAS 1811L, DEAS 2600, DEAS 2611L, DEAS 2700, DEAS 2920, DEAS 2921L) (Co-requisites: DEAS 2000, DEAS 2031, DEAS 2041P)*

**DEAS 2031: Expanded Functions Preventive Science Clinic Seminar: 2 credits**

In this course, students will evaluate functions and the situations presented in the clinical practice with the odontologist, in agreement with practice regulations and laws regulating the pursuit of this profession. They will analyze different dental care methods from prophylaxis to fluoride treatments and patient and community dental education. In addition, they will examine basic concepts for diagnosis through clinical examination, x-ray imaging, and cavity preparation. This course includes the use of simulator. *(Pre-requisites: DEAS 1101L, DEAS 1220, DEAS 1300, DEAS 1311L, DEAS 1420, DEAS 1421L, DEAS 1500, DEAS 1511L, DEAS 1600, DEAS 1811L, DEAS 2600, DEAS 2611L, DEAS 2700, DEAS 2920, DEAS 2921L, BIOL 1010, BIOL 2000) (Co-requisite: DEAS 2000, DEAS 2011L, DEAS 2041P)*

**DEAS 2041P: Expanded Functions Preventive Science Clinic Practice: 2 credits**

In this course, students will evidence their attendance, participation, and performance as a dental assistant with expanded functions, in compliance with their 180 practice hours in a general or pediatric dental office or clinic. They

will apply their knowledge and skills in the areas of prophylaxis, fluoride treatments, clinical examination, sealants, x-ray imaging, and preventive patient education. Students will also employ preventive techniques and procedures, as well as administrative processes under the supervision of an odontologist and according to the standards and regulations applicable to the profession.

*(Pre-requisites: BIOL 1010, BIOL 2000, DEAS 1101L, DEAS 1220, DEAS 1300, DEAS 1311L, DEAS 1420, DEAS 1421L, DEAS 1500, DEAS 1511L, DEAS 1600, DEAS 1811L, DEAS 2600, DEAS 2611L, DEAS 2700, DEAS 2920, DEAS 2921L) (Co-requisite: DEAS 2000, DEAS 2011L, DEAS 2031)*

**DEAS 2051: Expanded Functions Restorative Science Clinic Seminar: 2 credits**

In this seminar students discuss situations that occur during the clinical practice in restorative and during rotation in the clinic to identify alternatives to improve their skills. In addition, they will review and clarify concepts and processes that are possibly evaluated in the dental assistant comprehensive exam.

*(Pre-requisites: BIOL 1010, BIOL 2000, DEAS 1101L, DEAS 1220, DEAS 1300, DEAS 1311L, DEAS 1420, DEAS 1421L, DEAS 1500, DEAS 1511L, DEAS 1600, DEAS 1811L, DEAS 2600, DEAS 2611L, DEAS 2700, DEAS 2920, DEAS 2921L, MESE 2031L) (Co-requisite: DEAS 2061P)*

**DEAS 2055: Integrative Seminar for Dental Assistant with Expanded Functions: 2 credits**

In this seminar, students will analyze the situations presented during the restorative clinical practice and the rotation in the clinic, in order to optimize their professional skills, in accordance with the rules and regulations applicable to their profession. They will evaluate concepts and processes that will be included in the dental assistant certification exam such as radiology, instrumentation, and applied sciences. They will apply the processes for the use and management of equipment in a dental clinic. This course includes the use of simulator. *(Pre-requisites: BIOL 1010, BIOL 2000, DEAS 1101L, DEAS 1220, DEAS 1300, DEAS 1311L, DEAS 1420, DEAS 1421L, DEAS 1500, DEAS 1511L, DEAS 1600, DEAS 1811L, DEAS 2600, DEAS 2611L, DEAS*

*2700, DEAS 2920, DEAS 2921L, MESE 2031L) (Co-requisite: DEAS 2061P)*

**DEAS 2061P: Expanded Functions Restorative Science Clinic Practice: 2 credits**

In this course, students will analyze the rules and regulations applicable to restorative practice, as well as the laws that regulate the practice of the Dental Assistant profession in Puerto Rico. They will make amalgam and resin restorations following the established protocols under the supervision and support of a general or pediatric dentist. In addition, they will apply the procedures for dental assistance with the four-handed technique, the efficient management of X-rays, and the composition of dental cements in their practice as a dental assistant with expanded functions. They will also present the infection control process in their practice as a dental assistant with expanded functions.

*(Pre-requisites: BIOL 1010, BIOL 2000, DEAS 1101L, DEAS 1220, DEAS 1300, DEAS 1311L, DEAS 1420, DEAS 1421L, DEAS 1500, DEAS 1511L, DEAS 1600, DEAS 1811L, DEAS 2600, DEAS 2611L, DEAS 2700, DEAS 2920, DEAS 2921L, MESE 2031L) (Co-requisite: DEAS 2051 or DEAS 2055)*

**DEAS 2600: Instruments and Clinical Science II: 2 credits**

In this course, students will distinguish the dental instruments used in various dentistry specialties. In turn, they will differentiate dental procedures in these specialties-pedodontics, endodontics, periodontics, oral surgery, orthodontics, and prosthodontics. Furthermore, they will assess the role of the dental assistant in each of these procedures. This course includes the use of simulator.

*(Pre-requisites: DEAS 1101L, DEAS 1220, DEAS 1300, DEAS 1311L, DEAS 1420, DEAS 1421L, DEAS 1500, DEAS 1511L, DEAS 2700) (Co-requisite: DEAS 2611L, DEAS 2920, DEAS 2921L)*

**DEAS 2611L: Instruments and Clinical Science II Laboratory: 2 credits**

In this course, students will examine the equipment, materials, and instruments used in dental procedures according to the different dentistry specialties. They will prepare specialized dental procedure trays by selecting the required instruments and materials. They will apply the



process for the transfer of instruments in the correct sequence according to the required clinical procedure.

*(Pre-requisites: DEAS 1101L, DEAS 1220, DEAS 1300, DEAS 1311L, DEAS 1420, DEAS 1421L, DEAS 1500, DEAS 1511L, DEAS 2700) (Co-requisite: DEAS 2600, DEAS 2920, DEAS 2921L)*

**DEAS 2700: Histology, Embryology and Oral Pathology: 2 credits**

In this course, students will analyze basic elements of the embryological and histological development of the oral cavity. Additionally, they will examine tissue histological components of the oral cavity. Students will likewise distinguish clinical manifestations of inflammation mechanisms, wound healing, and other conditions of the head and neck region. *(Pre-requisites: BIOL 1010, 2000, DEAS 1101L, DEAS 1220) (Co-requisites: DEAS 1420, DEAS 1421L)*

**DEAS 2920: Preventive Dental Treatment: 2 credits**

In this course, students will analyze the history of dentistry, the legal aspects affecting the profession, as well as the basic concepts of preventive dentistry to control the transmission of infectious diseases. They will prepare the medical and dental history of the patient to facilitate the diagnosis and preventive treatment for the dentist. They will justify the need and importance of preventive treatments for periodontal diseases. In addition, they will develop a preventive education and nutrition plan for the promotion of optimal oral health and for the management of patients with special conditions. This course includes the use of simulator. *(Pre-requisites: DEAS 1101L, DEAS 1220, DEAS 1300, DEAS 1311L, DEAS 1420, DEAS 1421L, DEAS 1500, DEAS 1511L, DEAS 1811L, DEAS 2700) (Co-requisite: DEAS 2921L, DEAS 2600, DEAS 2611L)*

**DEAS 2921L: Preventive Dental Treatment Laboratory: 2 credits**

In this course, students will apply the basic concepts of preventive dentistry through dental orientation sessions for community patients to control the transmission of infectious diseases. They will prepare the patient's medical and dental history to facilitate the patient's diagnosis and preventive treatment by the dentist. Additionally, they will evaluate dental care alternatives in the

prophylaxis phase, fluoride treatments, required clinical examination, and necessary sealants by experimenting with these procedures in laboratory mannequins. Furthermore, they will develop an educational and nutritional preventive plan to promote optimal oral health and treat patients with special conditions. *(Pre-requisites: DEAS 1101L, DEAS 1220, DEAS 1300, DEAS 1311L, DEAS 1420, DEAS 1421L, DEAS 1500, DEAS 1511L, DEAS 1811L, DEAS 2700) (Co-requisite: DEAS 2920, DEAS 2600, DEAS 2611L)*

**MEBC 1000: Introduction to Billing: 3 credits**

In this course, students will analyze fundamental concepts related to medical billing systems. They will evaluate billing processing methods. They will demonstrate proper handling of forms 1500, ADA, and UB-04 for medical billing by selecting the appropriate insurance coverage type and distinguishing important features of health insurance.

**MEBC 1011L: Anatomy, Nomenclature with Codes and Dental Billing, and Laboratory: 4 credits**

In this course, students will distinguish terms related to the various structures and anatomical points of the teeth and oral cavity. They will also apply procedures for dental billing, both manually and electronically, according to the "Code on Dental Procedures and Nomenclature" (CDT Code). Furthermore, they will use invoice report information for processing complaints or other payment-related situations. (This course includes the use of a simulator). *(Pre-requisite: BIOL 1200, MEBC 1000)*

**MEBC 1030L: Electronic Medical Billing and Laboratory: 3 credits**

In this course, students will analyze the impact of technology on electronic billing systems. They will evaluate the management process of medical billing systems for healthcare personnel. Additionally, they will integrate knowledge and skills related to the billing cycle, the electronic reconciliation processes and claims to secondary medical plans through electronic billing programs. This course includes the use of simulator. *(Pre-requisite: MEBC 1000)*

**MEBC 1100: Diagnostic Coding (ICD-10-CM): 3 credits**

In this course, students will apply the coding of the International Classification of Diseases (ICD-10-CM) system in billing for diagnoses, through hypothetical cases of inpatient and outpatient patients. Additionally, they will justify the assignment of codes using clinical data from medical records. Furthermore, they will analyze the role of medical billers and coders in medical billing and the impact of billed codes on morbidity and mortality statistics in the population, from an ethical perspective. *(Pre-requisite: BIOL 1200, MEBC 1000) (Co-requisite: MESE 1010)*

**MEBC 1120: Coding Procedures I (CPT): 3 credits**

In this course, students will analyze the history and evolution of Current Procedural Terminology (CPT) codes in the medical coding field, including format, organization, and symbols. They will apply rules for the identification of main terms, sub-terms, cross-references, and codes in the CPT. They will distinguish highlighted procedures in medical records and the suitable documentation for coding purposes. They will describe procedures, standards and necessary documentation for coding in accordance with CPT. They will accurately assign procedure codes according to the CPT Manual.

*(Pre-requisites: BIOL 1200, MESE 1010, MEBC 1100, MEBC 1011L)*

**MEBC 1130: Coding Procedures II (HCPCS): 3 credits**

In this course, students will analyze the evolution of HCPCS codes in the medical coding field, including key terms related to HCPCS Level II coding. They will distinguish between the two levels of HCPCS, their components, and CPT/HCPCS structure. They will describe standards, procedures, ethical and legal aspects, forms, and documentation required by Medicare and Medicaid for HCPCS codes. They will discuss the importance of proper clinical documentation to ensure accurate coding. Furthermore, they will apply guidelines and general rules of this coding system for the assignment of procedure codes and level II HCPCS services for outpatient care to obtain reimbursement for services rendered.

*(Pre-requisites: MESE 1010, MEBC 1100, MEBC 1120)*

**MEBC 1300: Hospital Procedure Coding (PCS): 3 credits**

In this course, students will analyze the fundamental concepts of ICD-10-PCS (International Classification of Diseases, Tenth Revision, Procedure Coding System) used for coding surgical procedures performed on hospitalized patients, including its structure and organization. They will apply key conventions, guidelines, and rules governing the assignment of ICD-10-PCS codes. They will describe the processes for code grouping into sections and subsections for better searching, including definitions of the terms used and specific rules for code selection. They will recognize the importance of proper clinical documentation to ensure accurate and complete coding of surgical procedures performed to obtain reimbursement for services rendered.

*(Pre-requisites: BIOL 1200, MESE 1010, MEBC 1100, MEBC 1120) (Co-requisite: MEBC 1130)*

**MEBC 2010: Auditing and Legal Aspects in Medical Billing and Coding: 4 credits**

In this course, students will analyze general concepts, laws, and regulations required for the evaluation of medical audit procedures required by the governing management agencies of healthcare services. Examine payment remittance that include the abbreviations and codes corresponding to the denials in payment remittances and the necessary documents complementary to invoicing. They will develop quality processes for managing information and methods for sending invoices to medical insurers. Finally, they will explain the medical billing and coding audit process. *(Pre-requisites: MESE 1010, MEBC 1000, MEBC 1011L, MEBC 1030L, MEBC 1100, MEBC 1120, MEBC 1130, MEBI 1160L, MEBC 1300) (Co-requisite: MEBC 2020L)*

**MEBC 2020L: Integrative Seminar: Medical Billing and Coding and Laboratory: 3 credits**

In this seminar, students will integrate the knowledge, skills, and abilities developed throughout their academic training in the program. They will analyze fundamental concepts related to medical billing systems. They will examine data entry methods required by electronic billing programs. Students will justify the importance of diagnostic and procedural coding in medical record analysis. They will

integrate the knowledge and skills related to the electronic reconciliation and claims process. *(This course includes the use of billing and electronic record simulators)*

*(Pre-requisites: MESE 1010, MEBC 1000, MEBC 1011L, MEBC 1030L, MEBC 1100, MEBC 1120, MEBC 1130, MEBI 1160L, MEBC 1300) (Co-requisite: MEBC 2010)*

**MEBI 1160L: Electronic Medical Record and Laboratory: 3 credits**

In this course, students will analyze the basic concepts of electronic medical records management and the basic functions of an electronic health record. They will discuss the importance of using electronic medical records (EHR) in medical offices and hospitals. They will examine compliance regulations, as well as legal and ethical principles for the use of information and technology resources in the healthcare industry. They will describe primary public health objectives related to electronic medical records. *(This course includes the use of a simulator).*

*(Pre-requisite: MEBC 1000, MEBC 1011L, MEBC 1100, MEBC 1120) (Co-requisites: MEBC 1130, MEBC 1300)*

**MESE 1010: Medical Terminology: 3 credits**

In this course, students will value the importance of using medical terminology correctly among healthcare professionals and its study for establishing a connection with the anatomy of the human body. They will analyze the meaning of medical term segments and their relationship with anatomy, health conditions, and procedures or treatments performed on patients. Likewise, they will apply medical terminology used in various branches of healthcare, such as physiology and pathology. *(Pre-requisites: BIOL 1010, 2000 or BIOL 1200 or BIOL 2010)*

**MESE 2031L: Medical Billing, Electronic Record and Laboratory: 2 credits**

In this course, students will discuss the basic concepts of manual or electronic invoicing in the office or other health service environment. Students will examine the procedures for handling billing and processing each of the health services provided to patients. In addition, they collect the information required to identify the following in their clinical record: diagnosis, procedure and treatment offered to the patient, either manually or electronically. *(Pre-requisites:*

*BIOL 1010, BIOL 2000, DEAS 1500, DEAS 1511L, DEAS 2600, DEAS 2611L, DEAS 2920, DEAS 2921L)*

**MICR 1000: Basic Microbiology: 3 credits**

In this course, students will examine the fundamental concepts of microbiology and the interactions between microorganisms and humans, as well as the role and importance of the microbiome. They will also analyze the diversity, morphology, taxonomy, genetics, and metabolism of microscopic organisms. They will explain the behavior of microorganisms after exposure to treatments with antimicrobial agents. Moreover, they will distinguish the clinical presentation of patients based on different infectious agents. *(Co-requisite: MICR 1011L) (Pre-requisite: None)*

**MICR 1011L: Basic Microbiology Laboratory: 1 credit**

In this course, students will analyze the fundamental concepts of the microbiology laboratory. They will apply microbiological techniques to experiments in the laboratory. In addition, they will contrast the different types of microscopes used in laboratories. They will examine bacteria using microbiological stains. They will also identify different microorganisms. Finally, they will relate the clinical manifestations to the infectious agents. *(Co-requisite: MICR 1000) (Pre-requisite: None)*

**OPTI 2000: Anatomy and Physiology of the Eye: 3 credits**

In this course, students will examine the structure and functions of the eye and the visual apparatus. They will analyze, with the observation of images, the structure and the spatial disposition of the tissues and cells of the bulbous oculi (eyeball) and the human visual system. They will identify the normal structure of the bulbous oculi (eyeball) and the human visual system. *(Pre-requisite: BIOL 1010)*

**OPTI 2020: Ophthalmic Materials I: 3 créditos**

In this course, students will examine the necessary scientific basis for the study of the properties and structure of ophthalmic materials, and the didactic and laboratory concepts involved in the identification, localization, and fabrication



of the ophthalmic lenses prescribed for optical use. *(Prerequisites: OPTI 2000, PHYS 1020)*  
*(Co-requisite: OPTI 2020L)*

**OPTI 2020L: Ophthalmic Materials I: Laboratory: 1 credit**

In this course, students will analyze the fundamental principles of the elaboration of ophthalmic lenses. They will use the rules of personal protection and the parameters to work safely in the lab. They will apply the skills for elaborating ophthalmic lenses. *(Prerequisites: OPTI 2000, PHYS 1020)* *(Co-requisite: OPTI 2020)*

**OPTI 2030: Contact Lenses: 3 credits**

In this course, students will analyze the historical and theoretical foundations and development of contact lenses. They will examine advanced adjustment techniques, design, and care for soft, rigid, bifocal, therapeutic, cosmetic, and rigid gas permeable, contact lenses. They will apply adjustment techniques, power calculations, and observation techniques with specialized equipment. *(Prerequisites: OPTI 2000, OPTI 2010, OPTI 2020, OPTI 2020L, PHYS 1020)*  
*(Co-requisite: OPTI 2030L)*

**OPTI 2030L: Contact Lenses: Laboratory: 2 credits**

In this course, students will demonstrate knowledge and practical skills for the adaptation, management, and maintenance of various types of specialized contact lenses. They will differentiate the materials used in the design of contact lenses in accordance with the anatomy and physiology of the cornea and the tear duct system. They will also examine various types of contact lenses. They will develop processes for patient orientation about the conditions that can be improved with the use of contact lenses. *(Prerequisites: OPTI 2000, OPTI 2010, OPTI 2020, OPTI 2020L, PHYS 1020)* *(Co-requisite: OPTI 2030)*

**OPTI 2050L: Medical Billing for Optical Sciences and Laboratory" 3 credits**

In this course, students will analyze the basic concepts related to the medical billing system within the Optical Sciences field. They will examine the billing procedures associated with health services provided to patients. They will demonstrate knowledge of the billing procedures

and the appropriate selection of insurance coverage. *(Prerequisites: ITTE 1031L, OPTI 2000, OPTI 2060)*

**OPTI 2010: Principles of Physical Optics: 3 credits**

In this course, students will analyze the fundamental concepts and laws of Physics related to the Optical field. They will examine the theory of light, its nature, physical characteristics, and its transmission, as well as concepts related to the types of lenses, and the principles of curved and flat surfaces of mirrors and lenses. They will explain the important optical phenomena such as refraction, reflection, dispersion, polarization, prisms, and others. *(Prerequisites: MATH 1010, OPTI 2000, PHYS 1020)*

**OPTI 2040: Ophthalmic Materials II: 2 credits**

In this course, students will analyze the assembly process for high and low-power lenses, single-vision lenses, multifocal lenses, safety lenses, and specialized lenses. They will apply techniques for the inspection, management, and identification of various materials for the fabrication of lenses. They will value the importance of the position, inclination, and movement of the lens in its frame. They will examine the appropriate management and maintenance for the equipment, machinery, instruments, and related ophthalmic artifacts. *(Prerequisites: OPTI 2000, OPTI 2010, OPTI 2020, OPTI 2020L, PHYS 1020)*  
*(Co-requisite: OPTI 2040L)*

**OPTI 2040L: Ophthalmic Materials II: Laboratory: 2 credits**

In this course, students will apply the techniques used in the fabrication of ophthalmic lenses. They will integrate specialized materials, single-vision, bifocal, and multifocal lenses, along with finishing techniques. They will demonstrate lens inspection practices, optic calculations, frame repair, and the use and maintenance of ophthalmic equipment. They will evaluate the process to ensure the precision and accuracy of the follow-up of the specifications in the prescription, safety, and diligent handling of materials, equipment, instrumentation, and machinery in the ophthalmic laboratory. *(Prerequisites: OPTI 2000, OPTI 2010, OPTI 2020, OPTI 2020L, PHYS 1020)* *(Co-requisite: OPTI 2040)*

**OPTI 2110: Prescription Dispensing I: 3 credits**

In this course, students will examine the types and components of eyeglass frames, facial measurements, and alignment. They will analyze the processes of delivering, adjusting, maintaining, and repairing eyeglasses frames, single-vision, bifocal, and multifocal lenses, and the handling and maintenance of contact lenses. They will justify the recommendations of treatments and ophthalmic accessories and the importance of the development of a patient-ophthalmologist relationship.

*(Prerequisites: BIOL 1010, OPTI 2000, OPTI 2010, OPTI 2020, OPTI 2020L, OPTI 2040, OPTI 2040L, OPTI 2030, OPTI 2030L, OPTI 2040, OPTI 2040L, OPTI 2150L) (Co-requisite: OPTI 2110L)*

**OPTI 2110L: Prescription Dispensing I: Laboratory: 2 credits**

In this course, the student will apply concepts related to the principles of professional optics in their laboratory experiences. She will examine the types and components of eyeglass frames, facial measurements and alignment. She will employ procedures for the delivery, fitting, adjustment, maintenance and repair of eyeglass frames, single vision lenses, bifocals and multifocals, handling and maintenance of contact lenses. She will demonstrate the procedures for offering recommendations for optical treatments and accessories and developing the optician-patient relationship. *(Prerequisites: BIOL 1010, OPTI 2000, OPTI 2010, OPTI 2020, OPTI 2020L, OPTI 2040, OPTI 2040L, OPTI 2030, OPTI 2030L, OPTI 2040, OPTI 2040L, OPTI 2150L) (Co-requisite: OPTI 2110)*

**OPTI 2100: Laws Regulating the Otic Practice: 2 credits**

In this course, the student will analyze the laws that regulate the profession of licensed opticians. It will determine the difference between practice in the field of optics and other visual health professionals. She will interpret ethical issues related to the practice of optics, involved with patients, colleagues, other related professionals and the community at large.

**OPTI 2150L: Pre-Internship Laboratory in Frame Sizing: 2 credits**

In this course, the student will demonstrate mastery in the execution of the functions and

operations required in an optical laboratory. She will apply knowledge in the use and management of equipment to make lenses. In addition, she will interpret ophthalmic recipes for the production of lenses. *(Prerequisites: BIOL 1010, OPTI 2000, OPTI 2010, OPTI 2020, OPTI 2020L, OPTI 2040, OPTI 2040L, PHYS 1020)*

**OPTI 2160: Prescription Dispensing II: 3 credits**

In this course, the student will examine the various types of frames and their components. She will determine the factors that affect an ophthalmic prescription, such as vertex distance, lens twists and tilts, and magnification. She will discuss procedures for the design and application of multifocal segments, as well as finishing operations, basic fitting techniques, and interpretation of complex prescriptions. You will value the importance of dedication to service and professionalism in filling prescriptions. *(Prerequisites: OPTI 2110, OPTI 2110L)*

**OPTI 2120P: Clinical Practice and Seminar: 9 credits**

In this course, the student will integrate the techniques and knowledge acquired through the courses into their practice experience. You will apply procedures for managing and performing administrative tasks and office-related tasks, as well as those related to the handling of contact lenses and laboratory equipment, while using the correct terminology. She will demonstrate skills in offering guidance and assistance to a patient in an optical office. *(Prerequisites: OPTI 2000, OPTI 2010, OPTI 2020, OPTI 2020L, OPTI 2030, OPTI 2030L, OPTI 2040, OPTI 2040L, OPTI 2050L, OPTI 2060, OPTI 2100, OPTI 2110, OPTI 2150L)*

**PHAR 1000: Pharmaceutical Theory: 3 credits**

In this course, students will examine the evolution and history of the discipline of pharmacy, as well as concepts of ancient and modern medicine. They will discuss topics related to professional ethics and the role of the pharmacy technician on duty. Students will apply basic concepts in the process of pharmaceutical products classification process, dosage forms, administration routes, pharmaceutical abbreviation reading, and the parts of a prescription or medical order. Additionally, they will analyze pharmacy federal and state

legislation. This course includes the use of simulator.

**PHAR 1050: Pharmaceutical Chemistry: 3 credits**

In this course, students will examine the importance of basic concepts of pharmaceutical chemistry in the field of health, including water as a universal solvent, and the composition and concentration of solutions and electrolytes. Students will analyze the properties imparted by elements and functional groups to chemical compounds and how they affect biomolecules. They will also evaluate the chemical structure and composition, properties, and mechanisms of action of the most commonly used medicines. This course includes the use of simulator.

*(Pre-requisites: PHAR 1000, CHEM 1010, 1011L, MATH 1010)*

**PHAR 1120: Pharmaceutical Mathematics: 4 credits**

In this course, students will evaluate different mathematical operations carried out in pharmacies using different pharmaceutical systems. Additionally, they will employ conversion concepts of different unit systems, ratios, and proportions through a dimensional analysis of prescriptions. Furthermore, they will develop different techniques to determine the medication dosage to be dispensed according to medical prescription indications. This course includes the use of simulator. (Pre-requisite: PHAR 1000, MATH 1010)

**PHAR 1150: Pharmaceutical Mathematics I: 2 credits**

In this course the students will examine mathematical operations routinely performed in pharmaceutical systems and those related to medical orders. Will apply concepts of ratio and proportion, estimate and calculation, and significant figures to calculate and determine quantities in medical prescriptions. *(Pre-requisites: PHAR 1000, MATH 1010)*

**PHAR 1160: Pharmaceutical Mathematics II: 2 credits**

In this course the students will discuss conversion measures used in pharmacy to perform pharmaceutical calculations and solve conversion problems between systems. They examine different ways to determine the amount of drug

to fill according to the instructions on the prescription.

*(Pre-requisites: MATH 1010, PHAR 1000, 1150)*

**PHAR 2051L: Composition and Dispensing Laboratory: 2 credits**

In this course, students will analyze the duties of a pharmacy technician and the ethical aspects of the profession. They will develop prescriptions and composition recipes according to chapter USP 795: Pharmaceutical compounding – nonsterile preparations of the United States Pharmacopeia. Students will prepare compositions following the appropriate aseptic techniques established in chapter USP 797: Pharmaceutical compounding – sterile preparations of the United States Pharmacopeia. This course includes the use of simulator. *(Pre-requisites: BIOL 1010, 2000, MATH 1010, PHAR 1000, 2250 and 1120 or 1150) (Co-requisite: PHAR 2361L)*

**PHAR 2250: Pharmaceutical Legislation: 3 credits**

In this course, students will analyze laws and rulings of the operational processes in drugstores in Puerto Rico. Additionally, they will examine some laws and procedures related to medication dispensing, as well as other regulations concerning the professional practice. Likewise, they will resolve issues that arise in the pharmacy according to current laws and regulations. This course includes the use of simulator. *(Pre-requisite: PHAR 1000)*

**PHAR 2350: Posology: 3 credits**

In this course, students will examine concepts related to medication dosage. They will analyze factors that affect the safe and effective dosage of drugs, such as patient characteristics, routes of drug administration, the form of drug presentation, body weight, and body surface area. Students will also determine the dosage administered to the patient when parenteral medications, whether intravenous, intramuscular, or subcutaneous, are prescribed as part of their therapies. This course includes the use of a simulator. *(Pre-requisites: BIOL 1010, 2000, MATH 1010, PHAR 1000 and 1120 or 1150 and 1160)*

**PHAR 2361L: Pharmacy Administration Laboratory: 2 credits**

In this course, students will analyze basic administration and marketing concepts necessary for writing a proposal for the establishment of a pharmacy. Likewise, they will apply processes associated with medication billing, patient profile, prescriptions, and medical orders. In turn, students will resolve cost mathematical problems, discounts, retail price, and profit margin. Additionally, they will establish different strategies for inventory control, storage, and medication conservation. This course includes the use of simulator. *(Pre-requisites: MATH 1010, PHAR 1000, 2250 and 1120 or 1150) (Co-requisite: PHAR 2051L)*

**PHAR 2560: Pharmacology I: 3 credits**

In this course, students will analyze basic concepts of pharmacology. They will explain indications, contraindications, adverse reactions, and mechanisms of drug action. Likewise, students will classify drugs according to their therapeutic group. Additionally, they will examine components, disorders, and treatment options for the central nervous system. *(This course includes the use of simulator) (Pre-requisites: BIOL 1010, 2000, PHAR 1000)*

**PHAR 2570: Pharmacology II: 3 credits**

In this course, students will analyze the classifications of antineoplastic drugs and the gastrointestinal, reproductive, urinary, and skeletal muscle systems. In addition, they will explain the indications, contraindications, interactions, side or adverse effects, and the mechanisms of action of the drugs. Likewise, they will justify the indications for biological products, vitamin classifications, and the properties of homeopathic products. This course includes the use of a simulator. *(Pre-requisites: BIOL 1010, 2000, PHAR 1000, 2560)*

**PHAR 2580: Pharmacology III: 3 credits**

In this course, students will analyze the components, disorders, symptoms, and treatment options for conditions that impact the cardiovascular, respiratory, and endocrine systems. They will classify cardiovascular drugs, blood modifiers, antihyperlipidemics, drugs to treat respiratory system conditions and those used to treat diabetes and thyroid conditions that occur in the endocrine system according to their

therapeutic group. Also, students will explain the mechanisms of action according to their therapeutic group, indications, contraindications, and adverse reactions of the drugs presented. This course includes the use of simulator. *(Pre-requisites: BIOL 1010, 2000, PHAR 1000, 2560)*

**PHAR 2700: Pharmacy Internship Seminar I: 1 credit**

This seminar is taken in conjunction with the course PHAR 2711P Pharmacy Internship I. In this course the students will discuss aspects and situations experienced in the internship. Students apply knowledge, attitudes and responsibilities required in their performance as a pharmacy technician. In addition, students apply the laws and regulations governing the profession of pharmacy technician and their respective amendments in the performance of their internship. *(Pre-requisites: BIOL 1010, 2000, CHEM 1010, 1011L, MATH 1010, PHAR 1000, 1050, 2051L, 2250, 2361L, 2560 and 1120 or 1150 and 1160) (Co-requisite: PHAR 2711P)*

**PHAR 2711P: Pharmacy Internship I: 2 credits**

During this practice internship, students will apply administration knowledge from their role as pharmacy technicians. They will conduct the following procedures: reception, interpretation, labeling, dispatch, use of auxiliary labels, purchase orders, merchandise comparison, and inventory management following the laws and regulations of the pharmacy. This internship can take place in community pharmacies or hospitals. *(Pre-requisites: BIOL 1010, 2000, CHEM 1010, 1011L, MATH 1010, PHAR 1000, 1050, 2051L, 2250, 2361L, 2560 and 1120 or 1150 and 1160) (Co-requisite: PHAR 2700)*

**PHAR 2800: Pharmacy Internship Seminar II: 1 credit**

This seminar is taken in conjunction with the course PHAR 2811P-Pharmacy Internship II. In this course, students will discuss issues and situations experienced in their pharmacy internship. They apply knowledge, attitudes and responsibilities required in their performance as a pharmacy technician. In addition, students apply the laws and regulations governing the profession of pharmacy technician and their respective amendments. *(Pre-requisites: CHEM 1010, 1011L, BIOL 1010, 2000, MATH 1010, PHAR*

1000, 1050, 2051L, 2250, 2350, 2361L, 2560, 2700, 2711P and PHAR 1120 or PHAR 1150 and 1160) (Co-requisite: PHAR 2811P)

**PHAR 2811P: Pharmacy Internship II: 2 credits**

This internship can take place in community pharmacies or hospitals. The law requires that an authorized pharmacist supervise the intern's performance as pharmacy technician. At Internship II, the students will continue to strengthen their technical and administrative skills delegated by the pharmacist. Students must complete 350 hours of internship at the Practice Center. (Pre-requisites: CHEM 1010, 1011L, BIOL 1010, 2000, MATH 1010, PHAR 1000, 1050, 2051L, 2250, 2350, 2361L, 2560, 2700, 2711P and PHAR 1120 or PHAR 1150 and 1160) (Co-requisite: PHAR 2800)

**PHAR 2900: Pharmacy Internship Seminar III: 1 credit**

This seminar is taken in conjunction with the course PHAR 2911P- Pharmacy Internship III. In this course, students will discuss issues and situations experienced in their pharmacy internship. They will apply knowledge, attitudes and responsibilities required in their performance as a pharmacy technician. In addition, they apply the laws and regulations governing the profession of pharmacy technician and their respective amendments. (Pre-requisites: CHEM 1010, 1011L, BIOL 1010, 2000, MATH 1010, PHAR 1000, 1050, 2051L, 2250, 2350, 2361L, 2560, 2700, 2711P, 2800, 2811P and PHAR 1120 or PHAR 1150 and 1160) (Co-requisite: PHAR 2911P)

**PHAR 2911P: Pharmacy Internship III: 2 credits**

This internship can take place in community pharmacies or hospitals. The law requires that an authorized pharmacist supervise the student's performance as pharmacy technician intern. In Internship III, students enrich their technical and administrative skills delegated by the pharmacist. Students must complete 350 hours of internship at the Center for Practice. (Pre-requisites: CHEM 1010, 1011L, BIOL 1010, 2000, MATH 1010, PHAR 1000, 1050, 2051L, 2250, 2350, 2361L, 2560, 2700, 2711P, 2800, 2811P and PHAR 1120 or PHAR 1150 and 1160) (Co-requisite: PHAR 2900)

**PHAR 2920: Pharmacy Integrated Seminar: 3 credits**

In this course, students will integrate the concepts, skills, and professional attitudes required for their role as a pharmacy technician. They will analyze the concepts and skills acquired in various topics, such as theoretical pharmacy with pharmaceutical abbreviations, pharmacy administration, pharmaceutical legislation, pharmacology, pharmaceutical mathematics, dispensing techniques, institutional pharmacy, and posology, among others. Finally, they will complete exercises like those presented in the professional certification exam to work as a pharmacy technician. This course includes the use of a simulator. (Pre-requisites: BIOL 1010, 2000, CHEM 1010, 1011L, MATH 1010, PHAR 1000, 1050, 2051L, 2250, 2350, 2361L, 2560, 2570, 2580, 2700, 2711P, 2800, 2811P and PHAR 1120 or PHAR 1150 and 1160) (Co-requisite: PHAR 2900, 2911P)

**PHSC 1020 Introduction to Physics: 3 credits**

In this course, students will examine the basic concepts and principles of Physics that are the foundation of most studies in science and technology. Likewise, they will integrate the concepts and laws of physics in their interpretation of natural phenomena. Additionally, they will value physics as a mathematical science that studies the nature of matter, energy, and the relationship between both.

Prerequisites: None

Co-requisite: None

**PHSC 2030: Ultrasound Physics and Instrumentation I: 3 credits**

In this course, students will examine the definitions, foundations, concepts, and mathematical operations related to ultrasound physics. They will explain the classifications of sound, the anatomy of the sound source, the propagation of sound, its intensity, as well as the basic components of the ultrasound transducer, its shapes, characteristics, and diagnostic ultrasound modalities. They will identify ultrasound instrumentation, beam formation, image processing, and the monitor. (Pre-requisite: MATH 1010, SONO 1020)



**PHSC 2040: Ultrasound Physics and Instrumentation II: 3 credits**

In this course, students will examine the basic principles of hemodynamics and Doppler physics. They will explain the components of spectral imaging and flow patterns. They will analyze the arteriovenous Doppler spectrum. They will differentiate artifacts and their appropriate use for improving ultrasound images. They will discuss intensities, thermal and biological effects, and the ALARA principle.. (*Pre-requisite: MATH 1010, SONO 1020, PHSC 2030*)

**PHYS 1001: Physics Allied Health: 3 credits**

In this course, students will justify the importance of physics concepts, the use of mathematical formulas, and measurement systems in the health field. They will analyze different types of movement, Newton's laws, and the relationship between work and energy. They will evaluate particle behavior in all three states of matter, the properties of liquids, and the main gas laws. They will explain the physical phenomena regarding acoustics, radiation, and electricity in the field of their future profession.. (*Pre-requisite: MATH 1010*)

**PHYS 1020: Introduction to Physics: 3 credits**

In this course, students will examine the basic concepts and principles of Physics that are the foundation of most studies in science and technology. Likewise, they will integrate the concepts and laws of physics in their interpretation of natural phenomena. Additionally, they will value physics as a mathematical science that studies the nature of matter, energy, and the relationship between both.

**PSYC 2510: Psychology: 3 credits**

In this course, students will value the historical development and basic concepts of psychology, and its contribution to the scientific and social fields. They will examine the functions of the nervous, limbic, and endocrine systems and their influence on the cognitive, behavioral, and affective functions of the individual. Moreover, they will analyze theories of human development, learning, personality, and motivation, among others, and their contributions to understanding the human lifecycle within current psychology.

**RADI 1000: Fundamentals of Radiologic Sciences: 2 credits**

In this course, students will analyze the historical facts about the discovery of X-rays and the standards and ethical-legal aspects of the profession. They will also discuss the basic principles of providing quality service to patients as well as organizing and managing a radiology department. Additionally, they will evaluate radiographic equipment, procedures to be performed, diagnostic imaging modalities, and radiation protection principles. Likewise, they will discuss the laws that regulate the principles, practices, and policies of health organizations.

**RADI 1010 Introduction to Radiology**

In this course, students will examine the origin and development of radiological technology. Likewise, they will explain the radiologist professional roles and their interactions with patients, as well as the ethical and legal aspects applicable to the discipline. Additionally, they will discuss aspects related to radiological protection, management, and wellbeing of the patient.

2 credits

Prerequisites: None

**RADI 1100: Radiographic Film Acquisition and Processing: 2 credits**

In this course, students will analyze procedures for radiographic image acquisition using automatic and digital processing systems as well as the components, principles, and functioning of each type of equipment. Additionally, they will examine basic concepts of radiographic film, image formation in automatic processing systems, computed radiology, and digital radiology. Likewise, students will evaluate tools used in image processing and factors influencing acquisition and visualization. This course includes the use of simulator. (*Pre-requisites: RADI 1000*)

**RADI 1200: Principles of Radiographic Exposition: 2 credits**

In this course, students will analyze the principles of radiation physics, different types of energy, their interaction with matter and the components of the equipment used in the production of X-rays. Also, they will explain the theoretical concepts of the production and emission of X-rays and the variables that affect the quality of the image. Moreover, they will describe the radiographic film selection parameters for

achieving optimal latent image formation. Additionally, they will determine the photographic and geometric properties that affect the density and contrast of the radiographic image.

*(Pre-requisite: RADI 1000)*

**RADI 1311L: Radiologic Clinical Pre-Practice Laboratory: 1 credit**

In this course, students will evaluate the activities of a radiology department or imaging center in the procedures performed at the office. At the same time, they will analyze the performance of various radiological examinations on a day-to-day basis. Finally, they will describe the function of the radiology department and its importance in the health care service system. *(Pre-requisites: RADI 1000)*

**RADI 1411L: Radiologic Procedures I and Laboratory: 3 credits**

In this course, students will recognize the basic concepts of radiology and terms related to anatomical position and positioning. In addition, they will employ routine radiographic studies, emphasizing superior and inferior extremities. Students will also analyze exposure factors for optimal quality radiographic image using principles of radiologic protection. This course includes the use of simulator. *(Pre-requisites: RADI 1000, RADI 1100, RADI 1200)*

**RADI 1500: Sectional Anatomy: 2 credits**

In this course, students will evaluate sectional anatomy images through computerized tomography, magnetic resonance, and ultrasound modalities. They will examine anatomical structures of the human body through image evaluation. Students will likewise analyze the anatomy and physiology of human body systems as well as their functions. *(Pre-requisite: BIOL 2020)*

**RADI 1600: Radiologic Protection: 1 credit**

In this course, students will explain the effects of ionizing radiation on the molecules, cells, tissue, and body, the radiosensitivity of different organs, the law of Bergonié and Tribondeau, and the ALARA (as low as reasonably achievable) concept. They will examine the basic properties of radiation, the maximum permissible dose by anatomical region or whole body, dosimetry, and the requirements established by state and federal agencies on radiation protection and safety.

Students will discuss the factors that affect biological responses and the acute and chronic effects of radiation. In addition, they will analyze the basic concepts of radiological protection to minimize the exposure to ionizing radiation on the patient (infants, children, adolescents, adults, and elderly), the general public, and the operator of radiation equipment.

*(Pre-requisites: RADI 1000, RADI 1100, RADI 1200)*

**RADI 2009: Radiological Physics: 3 credits**

In this course, students will explain concepts of physics related to radiation, such as electricity, magnetism, electromagnetism as well as the laws associated with these concepts. Likewise, they will examine the relevant terminology and applications of the laws of physics. Additionally, they will analyze the necessary mathematic operations for understanding the development of modern radiology. *(Prerequisites: PHYS 1020)*

**RADI 2010: Patient Care and Management: 3 credits**

In this course, students will examine infection control techniques and aseptic principles for patient management and care in any clinical setting. Similarly, they will analyze the management techniques used with patients for their safety. Furthermore, they will employ techniques and procedures for vital sign assessment, identification of emergencies, and their management during radiological interventions.

**RADI 2011: Ethics in Radiologic Sciences: 2 Credits**

In this course, students will explain the ethical-legal aspects and rights associated with the profession. Additionally, they will analyze medical-legal terms, concepts, and principles, including the duties and responsibilities of radiologic technologists. They will also evaluate cases and questions related to ethics in the delivery of healthcare services.

**RADI 2011L: Patient Management and Care and Laboratory: 2 credits**

In this course, students will analyze the different communication barriers and considerations to providing quality service related to patient management and care. Students will explain the concerns that arise when caring for a patient in isolation as part of occupational protection and

infection control. They will also evaluate the different personal protective equipment used with a patient as well as the transfer of the patient from a stretcher to a radiographic table.

*(Pre-requisites: RADI 1000, RADI 1100, RADI 1200)*

### **RADI 2012: Principles of Medical Pathology I: 2 Credits**

In this course, students will examine the origin, causes, and conditions of the most relevant medical pathologies and traumatic diseases for radiographic procedures of the respiratory, skeletal, cardiovascular, hepatobiliary, and hematopoietic systems. They will identify the pathologic conditions of specific systems and organs in a medical order and radiographic studies. Likewise, they will relate the different diagnostic modalities and the effect of contrast media on the visualization of different pathological processes. This course includes the use of simulator. *(Pre-requisites: BIOL 2020, RADI 2005 or BIOL 2020, RADI 1500)*

### **RADI 2013: Principles of Medical Pathology II: 2 Credits**

In this course, students will analyze the origin, signs, symptoms, and treatments of diseases of the gastrointestinal, urinary, nervous, endocrine, and reproductive systems. Additionally, students will explain the importance of including information regarding pathological conditions of specific organs and systems, both in the medical order and radiographic studies. Likewise, they will evaluate different diagnostic modalities and their correlation with the different pathological processes. This course includes the use of simulator. *(Pre-requisite: RADI 2012)*

### **RADI 2016: Critique Radiology: 3 Credits**

In this course, students will analyze the quality control process within the radiology department. They will explain the steps to follow in the radiographic critique model according to different anatomical structures. They will evaluate radiographic images to identify potential improvements in medical imaging. (This course includes the use of a simulator). *(Pre-requisites: BIOL 2010, BIOL 2020, RADI 1000, RADI 1100, RADI 1200, RADI 1500, RADI 1311L, RADI 1411L, RADI 2021L)*

### **RADI 2020: Radiological Positioning and Related Anatomy I: 2 credits**

In this course, students will analyze the principles and general rules of patient positioning for radiographic image scanning. They will also examine techniques for performing radiological procedures. Furthermore, they will identify pathologies related to the anatomical areas being radiographed. *(Prerequisites: BIOL 2020, RADI 1010, RADI 2010) (Corequisite: RADI 2020L)*

### **RADI 2020L: Radiographic Positioning and Related Anatomy I: Laboratory: 1 credit**

In this course, students will apply the principles and general rules of patient positioning for radiographic image scanning. Similarly, they will employ the appropriate protocols and techniques for performing radiological procedures of the chest, abdomen, pelvis, and hip. Additionally, they will describe pathologies related to the anatomical areas being radiographed. *(Prerequisites: BIOL 2020, RADI 1010, RADI 2010) (Corequisite: RADI 2020)*

### **RADI 2021L: Radiology Procedures II and Laboratory: 2 credits**

In this course, students will examine the use of equipment to obtain high-quality images that allow for the appropriate diagnosis of different anatomical structures. In addition, students will analyze the different anatomical structures to be considered when positioning the patient for radiographic procedures and the diagnosis using the results of the images. Students will likewise evaluate safety procedures related to the use of protective equipment for the patient and technician. This course includes the use of simulator. *(Pre-requisites: RADI 1411L)*

### **RADI 2021P: Clinical Practice I: 1 credit**

In this course, students will perform simple radiographic procedures in the clinical practice area. Moreover, they will integrate the acquired knowledge regarding the interpretation of medical orders, the proper management of the patient, and the radiographic room preparation. Additionally, they will analyze radiographic procedures with the assistance of a licensed radiologic technologist. *(Pre-requisites: RADI 1000, RADI 1100, RADI 1200, RADI 1311L)*



**RADI 2030: Knowing Imaging Modalities and Equipment: 2 credits**

In this course, students will distinguish the diagnostic modalities and radiology equipment used in medical treatment within a radiology department. They will also examine the new modalities employed in clinical diagnosis, such as computed tomography, bone densitometry, magnetic resonance imaging, radiotherapy, nuclear medicine, fluoroscopy, ultrasound, and mammography. Additionally, they will contrast conventional radiology with digital radiology in terms of utility, cost, and application. *(Prerequisites: RADI 1010)*

**RADI 2031L: Radiologic Procedures III and Laboratory: 2 credits**

In this course, students will analyze radiographic imaging of the human body anatomy, regarding historicity, positioning, centralization, and image quality. In addition, they will integrate different radiological techniques, hygiene and safety processes, as well as radiological equipment, according to the anatomy of the body, age group, and trauma or existing pathology. Also, they will employ procedures and radiological techniques applied in the preparation of the examination room, equipment, radiological study of the patient, and their diagnosis. *(Pre-requisites: RADI 2021L)*

**RADI 2031P: Clinical Practice II: 1 credit**

In this course, students will analyze the anatomical structures according to each radiographic study performed. Students will develop specialized radiographic procedures under the supervision of the radiologic technologist assigned in the clinical area. In addition, they will explain the exposure factors as well as the radiographic position used for each anatomical structure. *(Pre-requisites: RADI 2021P)*

**RADI 2035: Principles of Diagnostic Imaging Modalities: 2 credits**

In this course, students will analyze the history, principles, and basic concepts of the main diagnostic and treatment modalities. In addition, students will categorize diagnostic modalities and their clinical applications. Likewise, they will explain the procedures and the corresponding safety and security principles when performing the different modalities. This course includes the

use of simulator. *(Pre-requisites: RADI 1000, 1100, 1200, 1500, 1311L, 1411L, 2021L)*

**RADI 2040: Pharmacology and Medication Administration in Diagnostic Imaging: 2 credits**

In this course, students will analyze the names, dosage, and route of medication administration. They will evaluate the contrast media administered in the field of radiology. Students will also examine data regarding the signs and symptoms of side effects following the administration of a drug or contrast medium. *(Pre-requisites: MATH 1010)*

**RADI 2040L: Integrative Seminar: Laboratory: 2 credits**

In this course, the student will distinguish the components of radiographic equipment and the radiographic room. They will also apply terminology related to positioning and the principles of radiographic imaging. Additionally, they will assess the role of the radiologic technologist in various areas of a clinical center and the importance of the professional code of ethics. *(Pre-requisites: RADI 1010, MESE 1010)*

**RADI 2041P: Clinical Practice III: 2 credits**

In this course, students will perform radiologic procedures of the following anatomic parts: upper and lower extremities, chest, abdomen, pelvis, spine, and ribs to adult and infant patients under the direct supervision of a physician radiologist or a licensed radiologic technologist as a clinical instructor. Moreover, they will prepare the work area and equipment before and after performing each study. Additionally, they will carry out all the tasks related to the daily operation of a radiology department in a hospital or private radiological center. *(Pre-requisite: RADI 2031P)*

**RADI 2050: Principles of Radiographic Exposure: 3 credits**

In this course, students will examine the operation of the X-ray machine and the factors that affect it. They will also explain the interaction of X-rays with matter, differential absorption, contrast examination, and exponential attenuation. Additionally, they will analyze radiographic techniques, X-ray emission, factors affecting the quantity and quality of emission, production and control of scattered radiation,

image quality factors, and radiographic viewing.  
(Prerequisites: *RADI 1010, RADI 2009*)

**RADI 2060: Principles of Radiobiology and Radiographical Protection: 2 credits**

In this course, students will examine the fundamental principles involved in the interaction of ionizing radiation with biological tissues. They will also analyze the short-term and long-term effects of radiation on humans and the protective mechanisms for the safe use of radiation in diagnostic and treatment studies on patients. Additionally, they will distinguish various methods of radiological protection for occupational staff, patients, and the general public, as well as special precautions for pregnant women. (Prerequisites: *RADI 2009*)

**RADI 2070: Radiographic Positioning and Related Anatomy II: 2 credits**

In this course, students will analyze the principles and general rules of patient positioning for radiographic image scanning, as well as the techniques used for radiographic procedures. They will also identify the components of the lower extremity and upper extremity of the body, along with their respective joints. Additionally, they will examine pathologies related to the radiographed anatomical parts. They will also apply knowledge related to patient assessment, medical orders, radiological protection, exposure factors, and radiographic quality.

(Prerequisites: *RADI 2020, RADI 2020L*)  
(Corequisite: *RADI 2070L*)

**RADI 2070L: Radiographic Positioning and Related Anatomy II: Laboratory: 1 credit**

In this course, students will apply the principles and general rules of patient positioning for radiographic image scanning, as well as the protocols and techniques used in the procedures. They will also differentiate the procedures related to obtaining radiographic images and the techniques used in radiographic procedures for the lower extremity and upper extremity of the body. Additionally, they will identify the corresponding anatomy in the radiographic images and the pathologies related to the radiographed anatomic parts.

(Prerequisites: *RADI 2020, RADI 2020L*)  
(Corequisite: *RADI 2070*)

**RADI 2080P: Clinical Internship I: 3 credits**

In this course, students will employ their skills to perform radiological studies in a real-world setting. They will also apply the knowledge acquired in previous courses on capturing radiographic images of the chest, abdomen, pelvis, and hip. Additionally, they will identify regulations and ethical and legal aspects related to the field of radiology.

(Prerequisites: *BIOL 2020, RADI 2010, RADI 2020L, RADI 2040L*)

**RADI 2100: Radiographic Positioning and Related Anatomy III: 2 credits**

In this course, students will analyze the principles and general rules of patient positioning for radiographic image scanning. They will also examine the techniques used in radiographic procedures for the skull, facial bones, and the entire spine. Additionally, they will identify pathologies related to the radiographed anatomical parts. Furthermore, they will apply knowledge related to patient assessment, reading medical orders, radiological protection, exposure factor identification, and radiographic quality.

(Prerequisites: *RADI 2070, RADI 2070L*)  
(Corequisite: *RADI 2100L*)

**RADI 2100L: Radiographic Positioning and Related Anatomy III: Laboratory: 1 credit**

In this course, students will apply the principles and general rules of patient positioning for radiographic image scanning. They will use the techniques employed in radiographic procedures for the skull, facial bones, and the entire spine. Additionally, they will describe pathologies related to the radiographed anatomical parts. Furthermore, they will explain processes related to patient assessment, reading medical orders, radiological protection, exposure factor identification, and radiographic quality.

1 credit

Prerequisites: *RADI 2070, RADI 2070L*

Corequisite: *RADI 2100*

**RADI 2110P: Clinical Internship II: 3 credits**

In this course, students will apply their knowledge of capturing radiographic images of the lower extremity and upper extremity of the body in various clinical scenarios. They will also select the necessary equipment for radiographic

studies based on the interpretation of medical orders. Furthermore, they will employ anatomical markers correctly according to radiographic positioning protocols, considering the applicable regulations and ethical and legal aspects in the field of radiology. *(Prerequisites: RADI 2050, RADI 2060, RADI 2070, RADI 2070L, RADI 2080P)*

**RADI 2130: Radiological Pathology: 2 credits**

In this course, students will examine diseases and injuries that commonly affect the body and their relationship to visible changes in the radiographic image. They will also analyze the epidemiology and natural history of the diseases studied. Additionally, they will identify pathologies diagnosable through X-ray applications and the techniques used for their detection. *(Prerequisites: BIOL 2020, RADI 2170)*

**RADI 2140: Radiographic Positioning and Related Anatomy IV: 2 credits**

In this course, students will examine the principles and general rules of patient positioning for special radiographic imaging studies. They will also differentiate the techniques used for various radiological procedures of the upper gastrointestinal, lower gastrointestinal, urinary, neurological, and skeletal systems aimed at identifying pathologies. Additionally, they will apply knowledge related to patient assessment, reading medical orders, radiological protection, exposure factors, and radiographic quality. *(Prerequisites: RADI 2100, RADI 2100L, RADI 2200) (Corequisite: RADI 2140L)*

**RADI 2140L: Radiographic Positioning and Related Anatomy IV: Laboratory: 1 credit**

In this course, students will apply the principles and general rules of patient positioning for radiographic image scanning. They will employ protocols and techniques for conducting radiological procedures of the upper gastrointestinal, lower gastrointestinal, urinary, neurological, and skeletal systems. Additionally, they will explain the pathologies related to the anatomic parts identified in radiographic images. *(Prerequisites: RADI 2100, RADI 2100L, RADI 2200) (Corequisite: RADI 2140)*

**RADI 2150P: Clinical Internship III: 3 credits**

In this course, students will apply techniques and procedures for capturing radiographic images of the skull and spine. They will also determine actions and processes to be executed in various clinical situations in real workplace settings. Additionally, they will demonstrate their knowledge of the regulations and ethical and legal aspects applicable to the field of radiology. *(Prerequisites: RADI 2100, RADI 2100L, RADI 2110P, RADI 2200, RADI 2170)*

**RADI 2170: Radiographic Quality Assurance and Control: 2 credits**

In this course, students will examine aspects related to the production, acquisition, and evaluation of a diagnostic radiographic image. Additionally, they will analyze the factors affecting radiographic quality. They will also recognize digital radiographic equipment and its optimal operation. *(Prerequisites: RADI 2050)*

**RADI 2200: Pharmacology and Contrast Media in Diagnostic Imaging: 3 credits**

In this course, students will analyze the fundamentals of pharmacology, venipuncture, and the administration of diagnostic contrast agents and medications intravenously. They will differentiate the contrast media used for distinguishing radiographic structures. Moreover, they will recognize the composition, contraindications, and adverse reactions associated with these agents. Additionally, they will examine the proper preparation, handling, and administration to patients, in accordance with the ethical and legal parameters of the profession. *(Prerequisites: RADI 1010)*

**RADI 2500: Advanced Sectional Anatomy: 4 credits**

In this course, students will identify the structures and location of the major anatomical planes. They will also value the importance of volumetric data sets and 3D reconstruction of body structures for critical diagnosis and disease treatment. Additionally, they will explain cross-sectional anatomy and the processes involved in patient care and assisting physicians with prognosis. *(Prerequisites: ANAT 2030L)*

**RADI 3000: Physics: Instrumentation and Images in Computed Tomography: 3 credits**

In this course, students will analyze the historical development, evolution, physical principles, and instrumentation employed in computed tomography (CT). They will also examine X-ray radiation in CT image formation, beam attenuation in CT, linear attenuation coefficients, tissue characteristics, and the application of Hounsfield units. They will differentiate data acquisition and manipulation techniques, as well as image reconstruction algorithms. Additionally, they will evaluate CT systems and operations, factors affecting image quality, artifact production and reduction, and image communication. *(Prerequisites: RADI 2500)*

**RADI 3010: Procedures for Image Formation in Computed Tomography: 3 credits**

In this course, students will examine the procedures involved in computed tomography (CT) imaging for both adult and pediatric patients. They will differentiate specific organ structures within the body, patient symptoms, and potential pathologies through indications and parameters for CT protocols. Additionally, they will explain the modalities and trends in CT. *(Prerequisites: RADI 2500)*

**RADI 3020: Pathological Correlation by Computed Tomography: 3 credits**

In this course, students will analyze common diseases diagnosable through computed tomography (CT). They will examine diseases or traumatic processes, along with their description, etiology, and symptoms. Additionally, they will correlate medical terms with identified pathologies based on CT appearances and possible diagnoses. *(Prerequisites: RADI 2500)*

**RADI 3030: Procedures for Obtaining Images by Magnetic Resonance: 3 credits**

In this course, students will analyze imaging techniques related to the central nervous system (CNS), neck, chest, musculoskeletal system, and abdominopelvic regions. They will also examine the clinical applications of these techniques, available coils and their specific use, considerations in scan sequences, alternatives in protocols, and positioning criteria. Additionally, they will differentiate anatomical structures and

planes, as well as the signal characteristics of normal and abnormal structures. *(Prerequisites: RADI 2150P)*

**RADI 3040: Pathological Correlation by Magnetic Resonance: 3 credits**

In this course, students will analyze common diseases diagnosable through the use of magnetic resonance imaging in terms of their description, etiology, and associated symptoms. They will also examine the appearance of magnetic resonance images for the detection of diseases or traumatic processes. Additionally, they will explain the most common diseases observable through magnetic resonance imaging. *(Prerequisites: RADI 2500)*

**RADI 3050: Physics: Principles, Parameters, and Concepts of Magnetic Resonance: 3 credits**

In this course, students will explain the physical principles of magnetic resonance imaging (MRI) and its historical evolution. They will examine the processes for generating and detecting a magnetic resonance signal, as well as image formation. Additionally, they will apply the appropriate parameters for capturing high-quality images. *(Prerequisites: RADI 2500)*

**RADI 3060: Ethics and Law in Imaging Science: 3 credits**

In this course, students will examine the historical and philosophical foundation of ethics, as well as its components. They will also analyze a range of ethical issues and dilemmas encountered in clinical practice. Additionally, they will assess aspects related to negligence, legal and professional standards, and the importance of proper documentation and informed consent. *(Prerequisites: RADI 1010)*

**RADI 3070: Computers in Medical Imaging and Informatics: 3 credits**

In this course, students will examine the applications of computers in radiological science, particularly in the capture, visualization, storage, and distribution of images. They will also analyze the basic concepts of patient information management and medical record handling, as well as issues related to privacy and relevant regulations. Additionally, they will differentiate various computer applications used in healthcare

for the acquisition, visualization, and utilization of digital images. *(Prerequisites: ITTE 1031L)*

**RADI 4010P: Clinical Internship in Computed Tomography: 6 credits**

In this course, students will critically analyze concepts and theories related to radiological procedures. They will assess the criteria for patient care, the importance of competent performance in radiographic imaging, and total quality management. Additionally, they will apply techniques and procedures for patient management and the acquisition of diagnostic images through computed tomography, in compliance with the ethical and professional standards required in the field. *(Prerequisites: RADI 3000, RADI 3010, RADI 3020)*

**RADI 4020P: Clinical Internship in Magnetic Resonance: 6 credits**

In this course, students will identify the necessary educational materials, facilities, and personnel for conducting magnetic resonance imaging for diagnostic purposes. They will also demonstrate magnetic resonance imaging procedures under indirect instructor supervision. Additionally, they will value the importance of complying with the ethical and professional standards required in the field. *(Prerequisites: RADI 2500)*

**RADI 4030: Pre-Certification Seminar in Radiologic Technology, CT, and MRI: 3 credits**

In this course, students will review concepts related to radiologic technology (RT), magnetic resonance (MR) modalities, and computed tomography (CT) evaluated by the American Registry of Radiologic Technologists (ARRT) and the Licensing Board of Radiological Technologists in Diagnostic Imaging and Radiotherapy Technologists of Puerto Rico. They will also apply knowledge and cognitive skills underlying the work of radiologic technologists for intelligent performance in tasks involving computed tomography and magnetic resonance. *(Prerequisites: ENGL 1010, MATH 1010, BIOL 2010, SEMI 1010, RADI 1010, ENGL 1020, ITTE 1031L, PHYS 1020, BIOL 2020, RADI 2010, MESE 1010, SPAN 1010, RADI 2009, RADI 2020, RADI 2020L, RADI 2030, RADI 2040L, SPAN 1020, RADI 2050, RADI 2060, RADI 2070, RADI 2070L, RADI 2080P, PSYC 2510, RADI 2170, RADI 2100, RADI 2100L, RADI 2110P, RADI 2200, ANAT*

*2030L, RADI 2130, RADI 2140, RADI 2140L, RADI 2150P, RADI 3060, RADI 3070, RADI 4040, RADI 2500, RADI 4050, RADI 3000, RADI 3010, RADI 3020)*

**RADI 4040: Research Methods and Computer Literacy: 3 credits**

In this course, students will analyze research methods and computer skills relevant to radiologic technologists in the context of ongoing changes in healthcare-related professions. They will also assess available resources for their professional growth. Additionally, they will recognize the importance of developing and disseminating intellectual research, information literacy, and the use of academic research methods in the profession. *(Prerequisites: ITTE 1031L)*

**RADI 4050: Educational Principles for Technologists: 3 credits**

In this course, students will examine strategies and techniques for developing the skills of an effective learning facilitator in a clinical setting. They will also identify common learning opportunities within the clinical environment. Additionally, they will apply the key elements required for the development of a learning experience. *(Prerequisites: ITTE 1031L)*

**SONO 1000: Introduction to Medical Sonography: 2 credits**

In this course, students will analyze the tasks, responsibilities, and roles of a sonographer in patient care and the development of high-quality diagnostic studies. Additionally, they will discuss aspects of the profession's historical development, its code of ethics, and the desired competencies of future sonographers. Students will explain the fundamentals of ultrasound physics, the equipment to be used, and basic principles of sonographic screening. Finally, they will evaluate different sonography specialties, safety techniques, and quality control. This course includes the use of a simulator.

**SONO 1020: Introduction to Medical Sonography: 3 Credits**

In this course, students will analyze the historical development of sonography, the field of medical sonography, the role of the sonographer, and the terminology associated with ultrasound imaging.



They will examine the basic principles of ultrasound, scanning methods, documentation, ergonomic and preventive aspects, equipment use and care, and quality control. Furthermore, they will specify the ethical and legal aspects governing the profession. This course includes a simulator.

**SONO 1030: Patient Management and Care in Sonographic Imaging: 3 Credits**

In this course, students will examine infection control techniques and the principles of surgical asepsis for the maintenance of a sterile field during patient management and care. They will differentiate management techniques for taking diagnostic images safely and effectively. They will develop skills for taking vital signs and providing first aid during a medical emergency.

**SONO 1040: Abdominal Sonography and Laboratory: 4 Credits**

In this course, students will review topics related to the anatomy and physiology of the abdominal organs, anatomical variants, the sonographic appearance of these structures, and associated pathologies. They will describe the techniques, procedures, and protocols used in the evaluation of the abdomen. They will develop skills to perform quality abdominal sonograms using the appropriate scanning techniques. *(Pre-requisites: BIOL 2010, BIOL 2020, SONO 1020, SONO 1030, MESE 1010)*

**SONO 1100: Ultrasound: 3 Credits**

In this course, students will analyze the fundamental principles and physical properties of sound and ultrasound. They will examine the definitions of sound and ultrasound, their creation, and deployment through the tissues. They will also measure the frequency and speed of sound with various means. Students will evaluate the process of analysis of spectrometry and color flow, as well as Doppler acquisition and the generation and measurement of sound and ultrasound. *(Pre-requisites: SONO 1000, MATH 1010)*

**SONO 1200: Patient Management and Care: 2 credits**

In this course, students will analyze the basic concepts of patient management, care, and health condition during the sonographic study. In addition, they will evaluate the skills necessary to

work as a sonographer, following the laws that regulate the profession and guarantee comprehensive service to the patient. Likewise, students will develop effective strategies to face possible contamination scenarios according to the principles of biosafety at the workplace and asepsis for infection control. Finally, students will justify the protocols for handling medical emergencies, measures, as well as ergonomic principles used in the radiology department, particularly in medical sonography. This course includes the use of a simulator. *(Pre-requisites: SONO 1000)*

**SONO 1311L: Medical and Physical Instrumentation Ultrasound and Laboratory: 3 credits.**

In this course, students will apply principles of sonographic physics and instrumentation to the use and handling of ultrasound equipment. They will analyze the physical principles of the Doppler effect, their application to color flow Doppler and spectral Doppler, and how this technology is utilized to perform vascular studies. Additionally, students will evaluate study quality based on acquisition parameters for diagnostic information. Furthermore, they will develop strategies necessary to maintain a high level of safety for patients during ultrasound studies. *(Pre-requisites: MATH 1010, PHYS 1001, SONO 1000) (Co-requisite: SONO 1421L)*

**SONO 1421L: Sonography Clinical Prepractice Laboratory: 1 credit**

In this course, students will examine their duties as sonographers in a real clinical setting. They will use ultrasound equipment in the laboratory to get acquainted with the operation and knobology of the equipment. They will apply tracking techniques under the direct supervision of a clinical instructor. Additionally, they will prepare preliminary reports according to possible pathological findings in the study. This course includes the use of simulator. *(Pre-requisites: SONO 1000, SONO 1100) (Co-requisite: SONO 1311L)*

**SONO 1511L: Abdominal Sonography and Laboratory: 4 credits**

In this course, students will examine the anatomy and pathologies of the abdominal system in order to perform high quality diagnoses and studies. They will develop clinical and screening skills

through abdominal ultrasound studies. Students will evaluate the anatomical areas of the liver, kidneys, pancreas, gallbladder, and spleen, among others, through ultrasounds. They will apply complete test protocols in the lab, screening techniques, and other necessary procedures for preliminaries related to pathologies in the abdominal area. This course includes the use of simulator. (*Pre-requisites: BIOL 2020, SONO 1000, SONO 1100*) (*Co-requisites: BIOL 2030, BIOL 2030L*)

**SONO 2000L: Gynecological and Obstetrical Sonography and Laboratory: 4 credits**

In this course, students will develop the required abilities for the performance of obstetric and gynecological studies. Furthermore, they will implement the sonographic protocols that are used in the diagnosis of conditions and diseases in the laboratory. In addition, they will apply physical principles related to the optimization of obstetric and gynecological images. This course includes the use of simulator.

(*Pre-requisites: SONO 1000, SONO 1100, SONO 1311L, BIOL 2020, BIOL 2030, BIOL 2030L*)

**SONO 2010: Vascular Sonography: 3 credits**

In this course, students will examine, through ultrasound imaging, anatomical and physiological structures, as well as the fundamental alterations of the vascular system in zones such as the patient's skull, extremities, and chest. Additionally, they will analyze, through hemodynamic assessment, the integrity or pathological state of venous and arterial structures. Likewise, they will apply their knowledge in physical science for manipulating, operating, and optimizing sonographic equipment through the execution of basic diagnostic protocols of vascular ultrasound scans and other non-invasive vascular tests. Finally, students will practice oral and written communication with other members of the interdisciplinary team using proper medical terminology of their field of study. This course includes the use of simulator. (*Pre-requisites: SONO 1000, SONO 1100, SONO 1311L, BIOL 2020, BIOL 2030, BIOL 2030L*) (*Co-requisite: SONO 2011L*)

**SONO 2011L: Vascular Sonography Laboratory: 2 credits**

In this course, students will develop an image collection using skills, technical knowledge, diagnostic ultrasound of anatomical aspects, and hemodynamic functions of the assessed vascular structures. Additionally, students will evaluate the state of the studied structures through ultrasound techniques like Doppler, Duplex, or others, as required by the protocol of the anatomical area. Likewise, students will analyze the adjustments needed for the ultrasound equipment, using as reference points physical science and its phenomena, the anatomical characteristics of the assessed patient, and the particularities of the protocol used. Finally, students will prepare a report where anatomical and physiological data will be reported emphasizing on significant findings in their area of study according to the protocol used with the patient. (*Pre-requisites: SONO 1000, SONO 1100, SONO 1311L, BIOL 2020, BIOL 2030, BIOL 2030L*) (*Co-requisite: SONO 2010*)

**SONO 2014L: Practice Seminar and Laboratory: 4 credits**

In this course, students will practice the necessary skills to perform quality sonographic studies in a simulated environment through the use of different tracing planes, the description of normal and pathological sonographic anatomy, and the performance of the various sonographic protocols. In addition, they will employ the basic skills of patient care in a sonographic unit, which include interpreting medical orders, analyzing the patient's medical history, and preparing preliminary reports. Additionally, they will prepare the basic tracing in organs corresponding to different sonographic studies while using the ultrasound machine appropriately. (*Pre-requisites: BIOL 2030, BIOL 2030L, SONO 1000, SONO 1100, SONO 1311L, SONO 1421L, SONO 2021P*)

**SONO 2020L: Gynecological Sonography and Laboratory: 4 Credits**

In this course, students will review topics related to the anatomy and physiology of the female pelvic organs, anatomical variants, the sonographic appearance of these structures, and associated pathologies. They will describe the techniques, procedures, and protocols used in the evaluation of the female pelvis. They will develop



skills to perform high-quality pelvic and endovaginally sonograms using appropriate scanning techniques. This course includes the use of a simulator. *(Pre-requisites: Pre-requisitos: BIOL 2010, BIOL 2020 MESE 1010, SONO 1020 SONO 1030, SONO 1040L) (Co-requisite: SONO 2030L)*

**SONO 2021P: Clinical Practice of Sonography I: 1 credit**

In this course, students will evaluate the basic patient care interventions, starting from basic medical terminology, which show the correlation between the diagnosis and the sonographic study. Furthermore, they will apply the abdominal sonographic protocol through the use of general screening principles, universal precautions, and rules from the American Institute of Ultrasound Medicine (AIUM). In addition, students will analyze the pathological and normal findings during the performance of a complete abdominal sonographic study. Likewise, they will show the patient's legal rights from the perspective of professional ethics and communication, as well as the sensible and respectful behavior towards physical and emotional needs. *(Pre-requisites: SONO 1000, SONO 1100, BIOL 2030, SONO 1311L, SONO 1421L)*

**SONO 2030L: Laboratory of Integration of Clinical Skills in Medical Sonography: 2 Credits**

In this course, students will discuss the components, techniques, and protocols of a sonography laboratory. They will interpret the content of medical orders. They will manage the patient according to universal standards. They will prepare a sonographic report. *(Pre-requisites: Pre-requisitos: BIOL 2010, BIOL 2020 MESE 1010, SONO 1020 SONO 1030, SONO 1040L) (Co-requisite: SONO 2030L)*

**SONO 2031P: Clinical Practice of Sonography II: 1 credit**

In this course, students will analyze pathological and normal findings in sonographic, abdominal, gynecological and obstetric studies. They will demonstrate knowledge of universal precautions and American Institute of Ultrasound in Medicine (AIUM) rules for the practice of a diagnostic medical sonographer. In addition, they will recognize symptoms of a patient by means of an appropriate sonographic diagnostic examination.

*(Pre-requisites: BIOL 2030, BIOL 2030L, SONO 1000, SONO 1100, SONO 1311L, SONO 1421L, SONO 2021P) (Co-requisite: SONO 2040L)*

**SONO 2040L: Sonography of Superficial Structures and Laboratory: 4 credits**

In this course, students will analyze the necessary concepts to perform ultrasound studies on superficial structures. Students will select the appropriate scanning techniques, the use of the transducer, and the different protocols to evaluate each surface structure. Likewise, they will evaluate the necessary equipment to practice sonographic studies on breasts, testicles, scrotum, thyroid, neonatal fontanelles, and musculoskeletal images, as well as benign or malignant pathologies. *(Pre-requisites: BIOL 2030, BIOL 2030L, SONO 1000, SONO 1311L, SONO 1100) (Co-requisite: SONO 2031P)*

**SONO 2040P: Clinical Practice I: Medical Sonography: 2 Credits**

In this course, students will practice, in a real environment and under the direct supervision of a clinical instructor, performing abdominal, gynecological, and obstetric sonographic studies in the first, second, or third trimester. They will analyze the patient's medical history, scanning techniques, protocols, identification of cuts, evaluation of organs, and anatomical structures. They will demonstrate professional attitudes and ethics in their role as medical sonographers.

*(Pre-requisites: BIOL 2010, BIOL 2020, SONO 1020, SONO 1030, SONO 1040L, MESE 1010, PHSC 2030, SONO 2020L, SONO 2030L) (Co-requisite: SONO 2050L)*

**SONO 2041P: Clinical Practice of Sonography III: 2 credits**

In this course, students will apply the principles of ethics, morals, values, and rights of the profession along with safety protocols. They will develop the skills necessary for interpreting a medical order and managing a patient's medical record. Likewise, they will demonstrate knowledge of anatomical structures and the necessary technical competencies to work as clinical sonographers in medical offices, hospitals, and diagnostic imaging centers. *(Pre-requisite: SONO 2031P)*

**SONO 2050L: Obstetric Sonography and Laboratory: 4 Credits**

In this course, students will analyze embryonic and fetal anatomy at each stage of pregnancy. They will recognize the normal sonographic appearance of the embryo and fetus. They will explain the complications related to pregnancy, such as multiple pregnancies, pregnancy failures, premature delivery, fetal death, pathological conditions of the fetus, and anomalies, among others. They will apply the appropriate scanning techniques when performing an obstetric sonogram. *(Pre-requisites: SONO 2010, SONO 2020L, SONO 1030, MESE 1010, PHSC 2023) (Co-requisite: SONO 2040P)*

**SONO 2051: Integrative Seminar of Sonography: 2 credits**

In this course, students will analyze the problems and difficulties presented in the cases handled during their clinical practice through the criteria of the scientific method. They will evaluate research articles with scientific sources about specialized topics in the field of sonography. In addition, they will develop the basic competencies needed for the processes related to job search and retention, as well as in the preparation for the board examination through the American Registry for Diagnostic Medical Sonography (ARDMS) and the Examining Board for the Diagnostic Imaging and Treatment Radiologic Technologists of Puerto Rico. *(Pre-requisites: SONO 2014L, SONO 2031P)*

**SONO 2060P: Clinical Practice II: Medical Sonography: 2 Credits**

In this course, students will practice, in a real environment and under the direct supervision of a clinical instructor, performing sonographic studies of superficial structures such as the thyroid, parathyroid, breasts, testicles, penis, popliteal region, musculoskeletal structures, and the neonatal brain. They will analyze the patient's medical history, scanning techniques, protocols, identification of cuts, evaluation of organs, and anatomical structures. They will demonstrate professional attitudes and ethics in their role as medical sonographers *(Pre-requisites: BIOL 2010, BIOL 2020, BIOL 2030, BIOL 2030L, SONO 1020, SONO 1030, SONO 1040L, MESE 1010, PHSC 2030, PHYS 2040, SONO 2020L, SONO 2030L, SONO 2050L, SONO 2040P)*

**SONO 2070L: Sonography of Superficial Structures and Laboratory: 4 Credits**

In this course, students will examine the anatomy, physiology, and pathologies of superficial structures that can be evaluated with diagnostic ultrasound. They will identify clinical signs, symptoms, laboratory values, and protocol techniques used in conducting each sonographic study. They will develop skills to conduct quality studies, applying the appropriate scanning techniques in the evaluation of superficial structures, such as the thyroid, parathyroid, breasts, testicles, penis, popliteal region, neonatal brain, and musculoskeletal structures. *(Pre-requisites: BIOL 2010, BIOL 2020, BIOL 2030, BIOL 2030L, MESE 1010, PHYS 2030, SONO 1020, SONO 1030, SONO 2020L, SONO 2030L, PHSC 2040)*

**SONO 2071: Pathology Applied to Medical Sonography I: 3 Credits**

In this course, students will describe the pathological processes associated with the organs and structures of the abdominal cavity and the superficial structures of the human body that can be evaluated through the use of medical sonography. They will discuss the etiology, signs and symptoms, normal sonographic appearance, and abnormal sonographic patterns of these organs and structures, as well as the etiology of congenital anomalies and the correlation of laboratory tests. They will recognize the measurements of organs for the evaluation of pathological findings related to the size and location of the organs and the components of different pathologies. *(Pre-requisites: BIOL 2010, BIOL 2020, MESE 1010, SONO 1040L, SONO 2020L, SONO 2050L)*

**SONO 2072: Pathology Applied To Medical Sonography II: 3 Credits**

In this course, students will describe the pathological processes associated with gynecology and obstetrics by gestation stage that can be evaluated through the use of medical sonography. They will discuss the etiology, signs and symptoms, normal sonographic appearance and abnormal sonographic patterns of organs and structures, as well as the etiology of congenital anomalies and the correlation of laboratory tests related to obstetrics and gynecology. They will recognize the measurements of anatomical structures for the

evaluation of pathological findings related to organ size, location, appearance, and composition of different pathologies. (*Pre-requisites: BIOL 2010 BIOL 2020 MESE 1010 SONO 1040L, SONO 2020L, SONO 2050L, SONO 2070L SONO 2071*)

**SONO 2080: Pre-Certification Exam Seminar in Medical Sonography: 2 Credits**

In this course, students will review the concepts acquired in their formal academic preparation as medical sonographers. They will discuss the physical principles of ultrasound and instrumentation, including clinical safety issues, ultrasound transducers, pulsed instrumentation, Doppler instrumentation, hemodynamics, quality assurance, artifacts, protocols, and new technologies. In addition, they will explain the anatomy, physiology, laboratory tests, and benign and malignant pathologies of the organs included in abdominal, pelvic, obstetric, and superficial structure sonographic studies. (*Pre-requisites: BIOL 2010, BIOL 2020, BIOL 2030, BIOL 2030L, MESE 1010, SONO 1040L, SONO 2020L, SONO 2050L, SONO 2070L, SONO 2071, PHSC 2040*)

**SONO 2090: Special Procedures In Medical Sonography: 2 Credits**

In this course, students will develop techniques for invasive, interventional, and therapeutic procedures guided by sonography. They will practice the preparation of patients, as well as the equipment, materials, and protocols of different procedures. They will discuss the role of the sonographer in performing procedures such as breast biopsies, thyroid biopsies, soft tissue biopsies, thoracentesis, paracentesis, chorionic villus sampling, amniocentesis, fine needle aspiration, umbilical cord sampling, umbilical cord transfusion, and in vitro fertilization, among others. (*Pre-requisites: BIOL 2010, BIOL 2020, BIOL 2030, BIOL 2030L, MESE 1010, SONO 1040L, SONO 2020L, SONO 2050L, SONO 2070L, SONO 2071*)

**SONO 3000P: Clinical Practice III: Medical Sonography: 5 Credits**

In this course, students will practice, in a real environment and under the direct supervision of a clinical instructor, the performance of all the abdominal, gynecological, and obstetric sonographic studies learned during their

academic preparation and of superficial structures such as the thyroid, parathyroid, breasts, testicles, penis, popliteal region, musculoskeletal structures, and the neonatal brain. They will analyze the concepts learned as part of their preparation, including the patient's medical history, scanning techniques, protocols, the identification of cuts, and the evaluation of organs and anatomical structures. They will demonstrate professional attitudes and ethics in their role as medical sonographers. (*Pre-requisites: BIOL 2010, BIOL 2020, BIOL 2030, BIOL 2030L, SONO 1020, SONO 1030, SONO 1040L, MESE 1010, PHSC 2030, PHYS 2040, SONO 2020L, SONO 2030L, SONO 2050L, SONO 2070L, SONO 2040P, SONO 2060P*)

**SONO 3010L: Fundamentals of Electrocardiography, Stress Tests and Holter and Laboratory: 3 Credits**

In this course, students will explain the electrical and mechanical events in the cardiovascular system and their relationship with the nervous system. They will identify various normal and abnormal electrocardiographic records. They will analyze the arrhythmias that affect the cardiovascular system with their associated electrocardiographic tracings. They will discuss the Holter study and stress test, including topics related to preparing for the test, the reasons for performing it, and the interpretation of normal and abnormal results. (*Pre-requisites: SONO 3000P*) (*Co-requisite: ANAT 2040*)

**SONO 3020L: Basic Echocardiography and Laboratory: 4 Credits**

In this course, students will apply echocardiography and Doppler techniques for cardiac evaluations through ultrasound. They will identify normal anatomy, cardiac structures, and their normal sonographic appearance. They will classify anatomical characteristics, internal structures of the heart, and the movement of its walls for the evaluation of its hemodynamics. (*Pre-requisites: SONO 3000P*)

**SONO 3030L: Sonographic Evaluation of Cardiac Pathologies and Laboratory: 3 Credits**

In this course, students will evaluate cardiac pathologies through the use of echocardiography. They will conduct simulated practices for the acquisition and development of techniques and

skills in the quantitative evaluation of a normal echocardiogram in a laboratory. They will use grayscale, M-mode, and Doppler modalities with proper scanning techniques for the production of quality images. *(Pre-requisites: ANAT 2040, ANAT 3010L, SONO 3020L)*

**SONO 3040L Cardiovascular Technology Laboratory: 2 Credits**

In this course, students will explain the role of the cardiovascular sonographer and technologist, the components of a cardiovascular sonography laboratory, and techniques and protocols related to the field. They will apply patient management and medical order interpretation techniques. They will perform a cardiovascular sonographic report. *(Pre-requisites: ANAT 2040, SONO 3010L, SONO 3020L)*

**SONO 3050L: Vascular Sonography of Upper Extremities, Clinical Application and Laboratory: 3 Credits**

In this course, students will develop knowledge about anatomy, physiology, and pathologies of both the arterial and venous systems of the upper extremities. They will use equipment, study protocols, and patient management techniques. They will interpret preliminary studies of the venous and arterial systems of the upper extremities. *(Pre-requisites: ANAT 2040, SONO 3010L, SONO 3020L, SONO 3030L, SONO 3040L)*

**SONO 3060L: Cerebrovascular Sonography, Clinical Application and Laboratory: 3 Credits**

In this course, students will develop knowledge of anatomy, physiology, and pathologies of both the extracranial and intracranial cerebrovascular systems. They will apply infection control techniques, emergency situation management, and patient transportation and transference techniques. They will interpret preliminary studies of the cerebrovascular system. *(Pre-requisites: ANAT 2040, SONO 3010L, SONO 3020L, SONO 3030L, SONO 3040L)*

**SONO 3070P: Sonography and Cardiovascular Technology Practice: 4 Credits**

In this course, students will examine procedures in medical consulting, dispensaries, or hospitals as part of their professional practice. They will apply knowledge of electrocardiograms (EKG),

treadmill test (TMT), Holter tests, telemetry and echocardiography, and cerebrovascular and vascular sonography of the upper extremities, both arterial and venous. They will use skills related to upper extremity sonography and cardiovascular technology under the supervision of a professional. *(Pre-requisites: ANAT 2040, SONO 3010L, SONO 3020L, SONO 3030L, SONO 3040L)*

**SONO 3080L: Vascular Sonography of Lower Extremities, Clinical Application and Laboratory: 3 Credits**

In this course, students will develop knowledge of anatomy, physiology, and pathologies of both the arterial and venous systems of the lower extremities. They will use equipment, study protocols, and patient management techniques. They will interpret preliminary studies of the venous and arterial system of the lower extremities. *(Pre-requisites: ANAT 2040, SONO 3010L, SONO 3020L, SONO 3030L, SONO 3040L, SONO 3050L, SONO 3060L)*

**SONO 4010L: Abdominal Doppler and Laboratory: 3 Credits**

In this course, students will develop anatomical, physiological, and pathological knowledge of both the abdominal arterial and venous systems. They will perform evaluations of the abdominal aorta, hepatic artery, inferior vena cava, and the hepatic venous and portocaval systems. They will identify the most common pathologies in these structures and their respective treatment. *(Pre-requisites: ANAT 2040, SONO 3010L, SONO 3020L, SONO 3030L, SONO 3040L, SONO 3050L, SONO 3060L)*

**SONO 4020P: Sonography and Cardiovascular Technology Practice II: 4 Credits**

In this course, students will collaborate in medical consulting, dispensaries, or hospitals, with the necessary skills for their professional practice. They will review the practice of skills related to taking EKGs, stress tests, Holter tests, echocardiograms, and cerebrovascular and upper extremity sonography. They will apply knowledge of vascular sonography of the lower extremities, both arterial and venous, and abdominal vascularity. They will use skills related to vascular sonography of the lower extremities and abdominal vascularity under the supervision of a professional. *(Pre-requisites: ANAT 2040, SONO*



*3010L, SONO 3020L, SONO 3030L, SONO 3040L, SONO 3050L, SONO 3060L, SONO 3070P)*

**SONO 4030: Pre-Certification Seminar in Cardiovascular Sonography: 2 Credits**

In this course, students will review the concepts acquired throughout their formal academic preparation as sonographers and cardiovascular technologists. They will apply the principles of ALARA in ultrasound studies. They will discuss topics related to vascular sonography of the upper and lower extremities, cerebrovascular sonography, abdominal vascular, and the fundamentals of echocardiography. They will integrate the acquired competencies to pass the certification exam for cardiac sonographers and vascular sonographers. *(Pre-requisites: ANAT 2040, PHSC 2030, PHSC 2040, SONO 3010L, SONO 3020L, SONO 3030L, SONO 3040L, SONO 3050L, SONO 3060L, SONO 3070P)*

**THER 1011L: Introduction to Physical Therapist Assistant and Laboratory: 3 credits**

In this course the student will be introduced to the fundamental concepts of physical therapy practice. The student will study the history of the profession and acquire basic patient care skills and knowledge within their scope of practice. The student will develop appropriate communication skills and critical thinking to facilitate the delivery of safe and effective interventions under the direction of a physical therapist.

**THER 1040L: Functional Movement I and Laboratory: 4 credits**

In this course the student will apply knowledge of human anatomy and physiology to the performance of functional movement including analysis of the biomechanical function of the upper extremity and spine. In addition, the student will examine normal thoracoabdominal movements and breathing patterns. The student will demonstrate mastery of oral and written expression using kinesiological terms to communicate and document therapeutic interventions.

The student will develop practical knowledge and skill in data collection procedures including goniometric measurements, manual muscle testing, palpation of bony landmarks and muscles, chest excursion measurements,

measures of spinal kyphosis and lordosis, and accessory joint motions in upper extremities, neck and trunk. The student will also describe and demonstrate positions used for scoliosis screening and postural drainage of the lungs. *(Co-requisites: BIOL 2020, THER 1041L) (Pre-requisites: BIOL 2010, THER 1011L)*

**THER 1041L: Modalities of Intervention of Electrotherapy, Physical Agents and Laboratory: 3 credits**

In this course, the student will analyze the indications, contraindications, precautions and expected physiological responses associated with the application of selected physical agents, electrotherapy and biofeedback. They will develop the clinical judgement needed to establish or modify safe and effective treatment under the direction of a physical therapist. *(Co-requisites: BIOL 2020, THER 1040L) (Pre-requisites: BIOL 2010, THER 1011L)*

**THER 1050L: Functional Movement II and Laboratory: 4 credits**

In this course the student will apply knowledge of human anatomy and physiology to the performance of functional movement including analysis of the biomechanical function of the lower extremity. In addition, the student will analyze the components of normal posture, gait and motor development across the lifespan.

The student will develop practical knowledge and skills in data collection procedures including goniometric measurements, manual muscle testing, palpation of bony landmarks and muscles and accessory joint motion in lower extremities. The student will analyze the phases of walking and deviations in human ambulation. In addition, the student will recognize basic milestones of movement development across the life span. *(Co-requisites: THER 2041L, THER 2161P) (Pre-requisites: BIOL 2010, BIOL 2020, THER 1011L, THER 1040L, THER 2040)*

**THER 1060L: Therapeutic Exercises and Laboratory: 4 credits**

In this theoretical and practical course, students will analyze the implementation of exercise as a therapeutic means to restore function. They will focus on the fundamental principles of exercise as a therapeutic modality and proper implementation of conventional rehabilitation

program, including directions, precautions and contraindications. The student will use this knowledge to develop the skills necessary to prepare and modify programs of therapeutic exercise under the direction the physical therapist. *(Co-requisites: THER 2050L, THER 2011L) (Pre-requisites: BIOL 2010, BIOL 2020, THER 1011L, THER 1041L, THER 1040L, THER 1050L, THER 2040, PSYC 2510)*

**THER 2011L: Daily Living Activities and Laboratory: 3 credits**

In this theoretical and practical course, the student will develop skills related to training in functional activities of daily living for patients with conditions or care needs in physical therapy. Students will apply skills to assist clients with positioning, ambulation, use of assistive devices and equipment, prosthetics, orthotics, transfer techniques, bed mobility, identification of environmental barriers, self-care strategies and functional training. *(Co-requisites: THER 2050L, THER 1060L) (Pre-requisites: BIOL 2010, BIOL 2020, THER 1011L, THER 1040L, THER 1041L, THER 1050L, THER 2040, PSYC 2510)*

**THER 2040: Physical Dysfunctions: 3 credits**

In this course, the student will analyze the etiology and pathological concepts associated with human disease involving the following systems: musculoskeletal, neuromuscular, integumentary, cardiovascular, pulmonary, endocrine, metabolic/gastrointestinal and genitourinary. The student will also recognize the clinical manifestations, general principles of treatment, complications and problems associated with dysfunction involving these systems. Pertinent medical terminology will be reviewed. *(Co-requisites: BIOL 2020, THER 1011L, PSYC 2510) (Pre-requisites: None)*

**THER 2041L: Rehabilitation Concepts, Techniques and Laboratory: 3 credits**

This course advances the knowledge and skills gained from previous courses with concepts and techniques used in physical therapy practice. Topics include ethics, reporting suspected cases of abuse, fraudulent billing and utilization of PT services. This course also explores airway clearance, manual therapies, burn care, bariatrics, amputation, and lymphedema. *(Co-requisites: THER 1050L, THER 2161P) (Pre-*

*requisites: BIOL 2010, BIOL 2020, THER 1011L, THER 1040L, THER 1041L, THER 2040, PSYC 2510)*

**THER 2050L: Advanced Rehabilitation Techniques for Complex Patient Conditions and Laboratory: 4 credits**

This course is designed to integrate and apply the student's previously learned theories and skills to the treatment of acute and complex patients with conditions such as brain injury, stroke, amputation, burn trauma, cardiovascular disease, rheumatic disease, cancer, etc. In addition, students will learn to apply specialized treatment procedures such as prosthetics and orthotic management, wound and scar management, neurodevelopmental techniques, cardiac rehabilitation and palliative care. Students will also learn to adapt patient education techniques to meet the needs of the patients with cognitive impairment and other psychosocial complications. *(Co-requisites: THER 1060L, THER 2011L) (Pre-requisites: BIOL 2010, BIOL 2020, THER 1011L, THER 1041L, THER 1040L, THER 1050L, THER 2040, PSYC 2510)*

**THER 2161P: Physical Therapist Assistant Practice I: 3 credits**

This is the first comprehensive clinical experience of 190 hours in which the student will, at beginning level performance, apply, integrate and perform clinical skills obtained in class and labs on patients while supervised by a licensed physical therapist. The student will apply clinical skills such as positioning, transfers, gait training, basic passive, assisted and active ROM, and application of physical and electrotherapy agents. The student will also monitor and identify vital signs, pain, skin integrity/sensations, edema, joint range of motion, muscle strength, muscle tone, balance, posture and functional activities. The student will demonstrate skills in communication, documentation and patient education. In addition, the student will recognize the organizational planning and operation of the physical therapy services.

*(Co-requisites: THER 1050L, THER 2041L) (Pre-requisites: BIOL 2010, BIOL 2020, THER 1011L, THER 1041L, THER 1040L, THER 2040, PSYC 2510)*

**THER 2171P: Physical therapist assistant practice II: 6 credits**

In this course the student will participate in two clinical practices experiences under the supervision of a physical therapist providing services for 190 hours each section for a total of 380 hours of practice at the end of the course. During the first section of the clinical practice the student will continue integrate and apply classroom knowledge and learned clinical skills at an intermediate to advanced intermediate-level performance. During the second section of the course the student will integrate and perform classroom knowledge and learned clinical skills at an entry-level performance. *(Co-requisites: THER 2181) (Pre-requisites: BIOL 2010, BIOL 2020, THER 1011L, THER 1040L, THER 1041L, THER 1050L, THER 1060L, THER 2041L, THER 2011L, THER 2040, THER 2050L, THER 2161P, PSYC 2510)*

**THER 2181: Integrating Seminar on Physical Therapist Assistant: 3 credits**

In this course the student will develop skills that facilitate the transition to the role of physical therapist assistant. The student will distinguish trends in the discipline, research skills and analysis of valid and reliable professional literature, which will develop critical thinking to solve problems. Also the student will recognize the importance of reporting fraud or abuse situations. The student will distinguish the importance of continuing professional development and will demonstrate speaking and writing skills necessary for the job search process. *(Co-requisites: THER 2171P) (Pre-requisites: BIOL 2010, BIOL 2020, THER 1011L, THER 1040L, THER 1041L, THER 1050L, THER 1060L, THER 2041L, THER 2011L, THER 2040, THER 2050L, THER 2161P, PSYC 2510)*



***UNDERGRADUATE  
NURSING  
ACADEMIC PROGRAMS***

## Bachelor's Degree in Science in Nursing

### OBJECTIVE:

The Bachelor's Degree in Science in Nursing trains students in the development of the knowledge and skills of the profession related to human care and teaching with a holistic approach. Graduates of this program will be able to apply the competencies of leadership, management, critical thinking, assertive communication, and ethical and legal decision making, specific to the different needs of groups, populations and situations. In addition, students will employ their skills in the clinical and biopsychosocial aspects during their intervention with clients, families and the community, therefore contributing to the betterment and development of the quality of life in the society.

### PROGRAM COMPETENCIES

1. Act independently, with particular attention to leadership, administration, and research in any healthcare scenario within the ethical and legal limits and scope of practice of the nursing professional in Puerto Rico.
2. Develop verbal, non-verbal, written or electronic communication with the client, family, community, and multidisciplinary health team to achieve results in the provided care.
3. Holistically implement decision making in the phases of the nursing process to promote, maintain, and re-establish the wellbeing of the client, family, and community.
4. Integrate innovative technological advances in research as well as evidence-based practice to improve care for the client, family, and community.
5. Analyze the types of health informatics to develop and manage nursing care plans to improve the health of the client, family, and community.
6. Evaluate the implications of ethical and legal issues when providing healthcare, following professional ethical canons and the laws regulating nursing practice in Puerto Rico.
7. Value individual singularity, cultural diversity, and human responses when selecting holistic nursing interventions.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online (hybrid) delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

37 Credits in General Courses

21 Credits in Core Courses

64 Credits in Major Courses

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**122 Total Credits**

### GENERAL EDUCATION:

ENGL 1010	Basic English I	3
ENGL 1020	Basic English II	3
ENGL 2050	Conversational English	3
HUMA 1010	Humanities I	3
HUMA 1020	Humanities II	3
ITTE 1031L	Computer Literacy and Laboratory	3
MATH 1010	Basic Mathematics	3
SOSC 1010	Social Sciences I	3
SOSC 1020	Social Sciences II	3
SPAN 1010	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
SPAN 2040	Writing and Composition	3
SEMI 1001	University Environment Seminar	1
		<b>37</b>

### CORE COURSES:

BIOL 1010	Introduction to Biology	3
BIOL 2000	Human Anatomy and Physiology	3
CHEM 2031	General Chemistry	3
PSYC 2510	Psychology	3
MICR 1000	Basic Microbiology	3
MICR 1011L	Basic Microbiology Laboratory	1
NUTR 1000	Introduction to Nutrition	2
STAT 2000	Introduction to Statistics	3
		<b>21</b>

### MAJOR COURSES

NURS 1000	Nursing Theory and Evolution	2
NURS 1050	Pharmacology and Nursing Implications	3
NURS 1061L	Pharmacology and Skills Laboratory for the Medicines Administration	2

NURS 1300	Fundamentals of Nursing	3
NURS 1311L	Fundamentals of Nursing Laboratory	2
NURS 1315P	Simulation and Practice of Fundamentals of Nursing	1.5
NURS 2540	Nursing Care In Mental Health and Psychiatry	2
NURS 2545P	Practice of Nursing Care in Mental Health and Psychiatry	1.5
NURS 2550	Nursing Interventions with the Adult and Elder I	3
NURS 2555P	Simulation and Practice of Nursing Interventions with the Adult and Elder I	2
NURS 2620	Nursing Interventions with the Mother and Newborn	3
NURS 2625P	Simulation and Practice of Nursing Interventions with the Mother and Newborn	1.5
NURS 2630	Nursing Interventions with the Adult and Elder II	3
NURS 2635P	Simulation and Practice of Nursing Interventions with the Adult and Elder II	2
NURS 2710	Nursing Interventions with the Child and Adolescent	3
NURS 2725P	Simulation and Practice of Nursing Interventions with the Child and Adolescent	1.5
NURS 2730	Integrating Seminar of Nursing	2
NURS 3006	Transition of the Role of Nurses in Current Society	3
NURS 3015	Physical Assessment	3
NURS 3040	Informatics in Healthcare Systems	3
NURS 3050	Research in Nursing	3
NURS 3055	Leadership aManagement	3
NURS 3130	Critical Interventions in Professional Nursing with Adults	3
NURS 4000	Global and National Health Policies	3
NURS 4020	Nursing Interventions with Families and Communities	3
NURS 4025P	Practice in Nursing Interventions with Families And Communities	2
<b>TOTAL CREDITS</b>		<b>64</b>
		<b>122</b>

#### NOTES:

- \*All courses must be passed with at least a "C" grade.
- Course weeks may vary depending on the program offering, which has a total length of approximately 144 weeks.
- Before beginning internship, students must have completed all prerequisites of this internship course in accordance with the curriculum of the program.
- The Bachelor's Degree in Science in Nursing Practices are equivalent to 82.5 hours (1.5 credits) and 110 hours (2 credits) each.
- For the internship courses all students will be required to present certification of Hepatitis, Influenza and Chicken Pox vaccines, between others requirements.
- This program is designed to prepare graduates to be generalist nurse. In Puerto Rico, generalist nurse must be licensed by the Puerto Rico Board of Nursing. For more information about this licensure, contact the Puerto Rico Board of Nursing, <https://orcps.salud.gov.pr/>.

## Bachelor's Degree in Science in Nursing (RN to BSN)

### OBJECTIVE

The Bachelor's Degree in Science in Nursing (RN to BSN) option trains students in the development of the knowledge and skills of the profession related to human care and teaching with a holistic approach. Graduates of this program will be able to apply the competencies of leadership, management, critical thinking, assertive communication, and ethical and legal decision making, specific to the different needs of groups, populations and situations. In addition, students will employ their skills in the clinical and biopsychosocial aspects during their intervention with clients, families and the community, therefore contributing to the betterment and development of the quality of life in the society.

### PROGRAM COMPETENCIES

1. Act independently, with particular attention to leadership, administration, and research in any healthcare scenario within the ethical and legal limits and scope of practice of the nursing professional in Puerto Rico.
2. Develop verbal, non-verbal, written or electronic communication with the client, family, community, and multidisciplinary health team to achieve results in the provided care.
3. Holistically implement decision making in the phases of the nursing process to promote, maintain, and re-establish the wellbeing of the client, family, and community.
4. Integrate innovative technological advances in research as well as evidence-based practice to improve care for the client, family, and community.
5. Analyze the types of health informatics to develop and manage nursing care plans to improve the health of the client, family, and community.
6. Evaluate the implications of ethical and legal issues when providing healthcare, following professional ethical canons and the laws regulating nursing practice in Puerto Rico.
7. Value individual singularity, cultural diversity, and human responses when selecting holistic nursing interventions.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online (hybrid) delivery method.
- Also, available in English via online delivery method.
- Students should only enroll in classes and programs delivered in English at NUC University if they have adequately mastered the English language (reading, writing, and speaking). Likewise, students should not enroll in courses and programs delivered in Spanish at NUC University unless they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS:

18 Credits in General Education

8 Credits in Core Courses

26 Credits in Major Courses

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**52 Total Credits**

***Note:** For a description of additional courses/credits required to complete the 122 total credits of the Bachelor's Degree program, please refer to the notes on the next page.*

### GENERAL EDUCATION:

ENGL 2050	Conversational English	3
HUMA 1010	Humanities I	3
HUMA 1020	Humanities II	3
SOSC 1010	Social Sciences I	3
SOSC 1020	Social Sciences II	3
SPAN 2040	Writing and Composition	3
		<b>18</b>

### CORE COURSES:

CHEM 2031	General Chemistry	3
NUTR 1000	Introduction to Nutrition	2
STAT 2000	Introduction to Statistics	3
		<b>8</b>

### MAJOR COURSES

NURS 3006	Transition of the Role of Nurses in Current Society	3
NURS 3015	Physical Assessment	3
NURS 3040	Informatics in Healthcare Systems	3
NURS 3050	Research in Nursing	3
NURS 3055	Leadership and Management	3
NURS 3130	Critical Interventions in Professional Nursing with Adults	3
NURS 4000	Global and National Health Policies	3
NURS 4020	Nursing Interventions with Families and Communities	3

NURS 4025P/ NURS 4025** Practice in Nursing Interventions with Families and Communities	2
<b>TOTAL CREDITS</b>	<b>26</b>
	<b>52</b>

#### NOTES:

- \*All courses must be passed with at least a "C" grade.
- \*\*For online offering.
- Course weeks may vary depending on the program offering, which has a total length of approximately 64 weeks.
- Before beginning course NURS 4025P/4025, students must have completed all prerequisites of this course in accordance with the curriculum of the program.
- Course NURS 4025P/4025 credits are equivalent to 110 hours (2 credits) hours each.
- For the internship courses, all students will be required to present certification of Hepatitis, Influenza and Chicken Pox vaccines, between others requirements.
- Any person interested in practicing a regulated profession such as Nursing should contact the appropriate State regulatory agency with regard to any additional requirements.
- In Puerto Rico, generalist nurse must be licensed by the Puerto Rico Board of Nursing. For more information about additional requirement to obtain this licensure, contact the Puerto Rico Board of Nursing, <https://orcps.salud.gov.pr/>.

#### Admission Requirements:

- Complete and submit the admission application.
- Have an associate degree in nursing from an accredited institution that is recognized by the United States Department of Education or by an official agency from the country of origin.
- Have a minimum GPA of **2.25** or its equivalent, according to the grading system of the institution of origin. Show proficiency in computer literacy.
- Have a permanent RN license in United States or Puerto Rico and show evidence that such license is active.

- \*All students must keep their license active during their time of study.

Notice: Given this program requires all applicants to have an active, permanent RN license in the United States or Puerto Rico to be admitted to the program and requires all students to keep their license active during their time of study, this program is not designed to prepare graduates to obtain licensure as an RN. Applicants interested in programs designed to prepare graduates to obtain licensure as an RN should consider NUC's Associate Degree in Nursing or the Bachelor Degree in Science in Nursing.

#### Documents that must be submitted with the admissions application:

- Transcript of the academic file or certification that includes a cumulative average and a degree conferred by the college or university of origin.
- If the transcript comes from a foreign university, it will be the responsibility of the student to have the document translated to English by a certified translator and have the transcript evaluated by a credentials evaluator who is member of the National Association of Credential Evaluation Services to determine the equivalency of the credentials to credentials awarded by institutions in the United States. These documents must be sent directly to the academic dean.
- Pay the admissions fee.

#### Transfer of credits for the Bachelor's Degree in Science in Nursing (RN to BSN) Program

Academic Degree: Bachelor's Degree in Science in Nursing (RN to BSN)

Terms: 4 full-time

Total credits: RN to BSN -52 credits

Credits required for graduation: **122 credits**

The conferred Associate's Degree in Nursing by an accredited institution, and the permanent and active RN license will be awarded as a prior learning and equivalent of the 70 credits Associate's Degree in Nursing at NUC University. The student will be required to take all the 52 credits of the Bachelor's Degree in Sciences in Nursing (RN to BSN) program. No additional courses will be transferred, without exception.

## Associate's Degree in Nursing

### OBJECTIVE

The Associate's Degree in Nursing trains students in the application of knowledge, skills and abilities in collaboration with the multidisciplinary health team, participating in the planning and provision of care centered on the client, family, and community. Furthermore, students will integrate safety principles when performing their clinical practice based on evidence and intervention in the field of nursing in a variety of settings. Graduates of this program will demonstrate competence in methods of the natural sciences and human behavior, under the direct supervision of a nursing professional in the general, specialist, or advanced practice categories.

### PROGRAM COMPETENCIES

1. Safely carry out tasks at hospitals, medical offices, laboratories, and outpatient and advanced-age care facilities within the ethical and legal limits and the scope of practice of the nursing associate degree professional in Puerto Rico.
2. Develop verbal, non-verbal, written and electronic communications with the client, family, community, and multidisciplinary health team to achieve results in the care provided.
3. Use critical thinking and the nursing process to holistically promote, maintain, and re-establish the wellbeing of the client, family, and community.
4. Identify the phases of the nursing process, integrating technological advances, research, and evidence-based practice to carry out nursing care for the client, family, and community.
5. Apply the use of technology for the handling of information related to the client's, family's, and community's care.
6. Promote the use of professional ethical canons, social norms, and laws regulating nursing practice in Puerto Rico.
7. Recognize singularity, cultural diversity, and human responses when selecting holistic nursing interventions.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online delivery method.
- Students should only enroll in courses and

programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### LANGUAGE OPTION AND MODALITY FOR THE NURSING DESTINATION PROGRAM:

- Available in Spanish language via hybrid delivery method. For the Nursing Destination Program, the hybrid delivery method combines 100% distance learning theory courses and on-site laboratories and practices in Puerto Rico.
- Residential courses will be offered at NUC University Caguas Campus.
- Classes are in Spanish; instructional resources, simulators and NCLEX preparation tool are in English.
- Students should only enroll in classes and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS:

19 Credits in General Courses

13 Credits in Core Courses

38 Credits in Major Courses

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**70 Total Credits**

### GENERAL EDUCATION:

ENGL 1010	Basic English I	3
ENGL 1020	Basic English II	3
ITTE 1031L	Computer Literacy and Laboratory	3
MATH 1010	Basic Mathematics	3
SPAN 1010	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
SEMI 1001	University Environment Seminar	1
		<b>19</b>

### CORE COURSES:

BIOL 1010	Introduction to Biology	3
BIOL 2000	Human Anatomy and Physiology	3
MICR 1000	Basic Microbiology	3
MICR 1011L	Basic Microbiology Laboratory	1
PSYC 2510	Psychology	3
		<b>13</b>

### MAJOR COURSES:

NURS 1000	Nursing Theory and Evolution	2
NURS 1050	Pharmacology and Nursing	



	Implications	3
NURS 1061L	Pharmacology and Skills Laboratory for the Medicines Administration	2
NURS 1300	Fundamentals of Nursing	3
NURS 1311L	Fundamentals of Nursing Laboratory	2
NURS 1315P	Simulation and Practice of Fundamentals of Nursing	1.5
NURS 2540	Nursing Care in Mental Health and Psychiatry	2
NURS 2545P	Practice of Nursing Care in Mental Health and Psychiatry	1.5
NURS 2550	Nursing Interventions with the Adult and Elder I	3
NURS 2555P	Simulation and Practice of Nursing Interventions with the Adult and Elder I	2
NURS 2620	Nursing Intervention with the Mother and Newborn	3
NURS 2625P	Simulation and Practice of Nursing Interventions with the Mother and Newborn	1.5
NURS 2630	Nursing Interventions with the Adult and Elder II	3
NURS 2635P	Simulation and Practice of Nursing Interventions with the Adult and Elder II	2
NURS 2710	Nursing Interventions with the Child and Adolescent	3
NURS 2725P	Simulation and Practice of Nursing Intervention with the Child and Adolescent	1.5
NURS 2730	Integrating Seminar of Nursing	2
		<b>38</b>
<b>TOTAL CREDITS</b>		<b>70</b>

#### NOTES:

- \*All courses must be passed with at least a "C" grade.
- Course weeks may vary depending on the program offering, which has a total length of approximately 80 weeks.
- Before beginning internship, students must have completed all prerequisites of this internship course in accordance with the curriculum of the program.
- The Associate's Degree in Nursing Practices are equivalent 82.5 hours (1.5 credits) and 110 hours (2 credits) hours each.
- For the internship courses all students will be

required to present certification of Hepatitis, Influenza and Chicken Pox vaccines, between others requirements.

#### PUERTO RICO LICENSURE

This program is designed to prepare graduates to be associate nurse. In Puerto Rico, associate nurse must be licensed by the Puerto Rico Board of Nursing. For more information about this licensure, contact the Puerto Rico Board of Nursing, <https://orcps.salud.gov.pr/>.

#### NURSING DESTINATION PROGRAM

##### Program Availability

This program is available only for residents of Florida, New York, or Texas who intend to work in Florida, New York, or Texas after graduation.

##### Licensure

This program is designed to prepare graduates to be registered nurses in Florida, New York, or Texas. In Florida, registered nurses must be licensed by the Florida Board of Nursing. For more information about this licensure, contact the Florida Board of Nursing, <https://floridasnursing.gov/>. In New York, registered nurses must be licensed by the New York State Board of Nursing. For more information about this licensure, contact the New York State Board of Nursing, <https://www.op.nysed.gov/registered-professional-nursing>. In Texas, registered nurses must be licensed by the Texas Board of Nursing. For more information about this licensure, contact the Texas Board of Nursing, <https://www.bon.texas.gov/>.

In New York, the graduate must complete a NYSED Approved Infection Control Course and a Child Abuse Identification and Reporting Course from a New York State's approved provider or qualify for an exemption.

In Texas, the graduate must pass the Texas Nursing Jurisprudence Examination (NJE).

The "**Puerto Rico Nursing Destination Program**" will qualify graduates to apply for a Registered Nurse license ("RN License") in Puerto Rico, Florida, New York, or Texas. In order to obtain an RN License in Florida, New York, or Texas, graduates will need to have their



academic credentials from Puerto Rico evaluated and pass the NCLEX-RN exam according to the standards of the Florida Board of Nursing, New York Board of Nursing, or Texas Board of Nursing. This is an extra step that is required of students not enrolled in a program based in Florida, New York, or Texas.

### *1. Nursing Destination Program Status and Travel Requirements*

- a. By attending this program, you will be considered a student of an accredited Puerto Rico institution. The program is approved by the Puerto Rico Board of Nurse Examiners, and is not approved by any other state board of nursing.
- b. There is a travel requirement in this program. Students must attend in-person in Puerto Rico for approximately 26 weeks to meet coursework and clinical requirements. Students will travel to Puerto Rico in the second (2nd) term for 14 weeks and in the fourth (4th) term for 12 weeks. The duration of the programs 80 weeks.
- c. Students are responsible for their own travel, housing, meals and personal expenses while attending in Puerto Rico. NUC will not make arrangements or pay these expenses on students' behalf; however, financial aid funds (for those who qualify) may be available for use with these expenses.
- d. Other portions of the program are completed by distance education.

### *2. Nursing Destination Program Licensure Process and Qualification*

- a. To obtain an RN License, graduates must comply with Florida's, New York's, or Texas's qualifying process and have their academic credentials evaluated. The process is not automatic and requires an application to the Florida Board of Nursing, New York Board of Nursing, or Texas Board of Nursing from each individual graduate.
- b. While NUC has determined the Nursing Destination Program meets the educational requirements for RN Licensure in Florida, New York, and Texas, provided the graduate complies with the qualifying process referenced

above, it cannot guarantee state approval of any application or credential evaluation.

- c. You will incur additional fees for your application to the Florida, New York, or Texas Board of Nursing and for any credential evaluation. The institution will not reimburse you for any costs related to credential evaluation or the application process in Florida, New York, or Texas.
- d. The Nursing Destination Program meets the applicable educational requirements for licensure in Florida, New York, or Texas. The Florida Board of Nursing, New York Board of Nursing, or Texas Board of Nursing may have additional non-educational requirements. Each graduate is responsible for ensuring they meet any non-educational requirements and understanding the specific requirements for an RN License in Florida, New York, or Texas. Non-educational requirements may include, but are not limited to, having a Social Security Number.
- e. Instruction in the program will be predominantly in Spanish. However, graduates will be required to provide evidence of meeting the English language requirement to be issued a license in Florida or Texas. Proof of English competency is a requirement to take the NCLEX-RN exam in Florida or Texas.

***UNDERGRADUATE  
NURSING  
COURSE DESCRIPTIONS***

**BIOL 2000: Human Anatomy and Physiology: 3 credits**

In this course, students will examine the basic concepts of human anatomy and physiology. They will analyze the structures of the systems of the human body, as well as the relationship between these systems and the importance of their proper functioning. Additionally, they will distinguish the most common diseases, anomalies, and disorders that affect each system. *(Pre-requisite: BIOL 1010)*

**CHEM 2031: General Chemistry: 3 credits**

In this course, students will analyze the classification of matter, the atomic structure, and the formation of chemical bonds, as well as the measurement systems used in chemistry. They will differentiate the types of chemical reactions and solutions. In addition, students will examine different organic compounds and biological molecules. *(Pre-requisites: MATH 1010)*

**MICR 1000: Basic Microbiology: 3 credits**

In this course, students will examine the fundamental concepts of microbiology and the interactions between microorganisms and humans, as well as the role and importance of the microbiome. They will also analyze the diversity, morphology, taxonomy, genetics, and metabolism of microscopic organisms. They will explain the behavior of microorganisms after exposure to treatments with antimicrobial agents. Moreover, they will distinguish the clinical presentation of patients based on different infectious agents. *(Co-requisite: MICR 1011L)* *(Pre-requisite: None)*

**MICR 1011L: Basic Microbiology Laboratory: 1 credit**

In this course, students will analyze the fundamental concepts of the microbiology laboratory. They will apply microbiological techniques to experiments in the laboratory. In addition, they will contrast the different types of microscopes used in laboratories. They will examine bacteria using microbiological stains. They will also identify different microorganisms. Finally, they will relate the clinical manifestations to the infectious agents. *(Co-requisite: MICR 1000)* *(Pre-requisite: None)*

**NURS 1000: Nursing Theory and Evolution: 2 credits**

In this course, students will examine the origin and evolution of nursing practice and its historical background. They will also explain the ethical/moral principles and legal standards that regulate nursing practice as a profession. Additionally, they will analyze concepts related to health promotion and maintenance, disease prevention, the importance of computer skills, and the integration of technology in contemporary nursing practice.

**NURS 1050: Pharmacology and Nursing Implications: 3 credits**

In this course, the student will analyze the basic principles of pharmacology and its implications on drug administration when providing nursing care to patients and their families. It will examine the professional standards and regulations for prescription law, administration, and control of drugs and their implications for nursing practice. It will highlight the importance of the knowledge of pharmacology to manage drugs or medication for patients /families safely. It will integrate the knowledge of the different body systems and pharmacology into managing and administering medications as part of nursing practice. This course includes the use of simulation. *(Co-requisites: NURS 1061L)* *(Pre-requisites: BIOL 2000, MATH 1010, NURS 1000, 1300, 1311L, 1321P or BIOL 2000, MATH 1010, NURS 1000, 1300, 1311L, 1315P)*

**NURS 1061L: Pharmacology and Skills Laboratory for the Medicines Administration: 2 credits**

In this course, students will apply the nursing process to the proper medication administration according to the patient's growth and development stage. In addition, they will interpret the medical prescription language for the correct management of medications. Students will also execute basic skills needed for calculating, dosing, and administering medications, as well as documenting the nursing care interventions offered to the patients, their family, and the community. Students will perform their clinical practice in simulated laboratories *(Co-requisites: NURS 1050)* *(Pre-requisites: BIOL 2000, MATH 1010, NURS 1000, 1300, 1311L, 1321P or BIOL 2000, MATH 1010, NURS 1000, 1300, 1311L, 1315P)*

**NURS 1300: Fundamentals of Nursing: 3 credits**

In this course, students will demonstrate the critical thinking attitudes and skills used by nursing professionals in decision making and problem solving while providing health care. Students will integrate the nursing process as a tool to address patient, family, and community health needs. They will explain the importance of communication in interacting with patients, family, community, their colleagues, and the multi-disciplinary staff team. They will incorporate the professional role as it relates to technological tools in processes of evidence based practice, education, and dissemination of relevant information for professionals, patients, and members of the multi-disciplinary team within the professional environment. *(Co-requisites: BIOL 2000, NURS 1311L, 1321P or BIOL 2000, NURS 1311L, 1315P) (Pre-requisites: BIOL 1010, MATH 1010, NURS 1000)*

**NURS 1311L: Fundamentals of Nursing Laboratory: 2 credits**

In this course, students will develop the knowledge and technical skills necessary for safely performing basic nursing procedures with confidence in patient, families, and community care intervention. They will use this process as a framework for making decisions that show critical thinking skills development, as they perform safe and effective interventions with patients, family, and community. Additionally, students will effectively employ verbal, non-verbal, written, and technological communication skills when transmitting healthcare-related information to clients, families, community, colleagues, and the multi-disciplinary team. They will also perform clinical practice in simulated laboratories. This course includes the use of simulation. *(Co-requisites: BIOL 2000, NURS 1300, 1321P or BIOL 2000, NURS 1300, 1315P) (Pre-requisites: BIOL 1010, MATH 1010, NURS 1000)*

**NURS 1315P: Simulation & Practice of Fundamentals of Nursing: 1.5 credits**

In this course, students will apply basic skills and competencies necessary for direct patients, family, and community care, based on the philosophy of the school and the nursing process. They will perform clinical practice in simulated laboratories and different healthcare settings. Students will likewise use the nursing process for

health promotion and disease prevention in patients, families, and the community. This course includes the use of simulation. *(Co-requisites: BIOL 2000, NURS 1300, 1311L) (Pre-requisites: BIOL 1010, MATH 1010, NURS 1000)*

**NURS 1321P: Simulation and Practice of Fundamentals of Nursing: 1.5 credits**

In the course, Simulation and Practice of Fundamentals in Nursing, the student will continue to develop and apply the basic skills necessary for the direct care of the client/family by using the program conceptual framework and the nursing process. Practice will occur in primary and secondary health care setting. Students will use the 5 steps to the nursing process (assessment, diagnosis, planning, implementing and evaluating) to plan and implement care for the improvement of the client/family's health. *(Co-requisites: BIOL 2000, NURS 1300, 1311L) (Pre-requisites: BIOL 1010, MATH 1010, NURS 1000)*

**NURS 2540: Nursing Care in Mental Health and Psychiatry: 2 credits**

In this course, students will analyze the historical evolution of psychiatric nursing and basic theoretical concepts of mental health. They will examine professional, ethical, and legal responsibilities in nursing comprehensive care, focused on mental health at primary, secondary, and tertiary levels. Additionally, students will support the importance of maintaining good therapeutic communication aimed at establishing effective relationships with patients in mental health care. They will likewise incorporate the nursing process in the management of common mental health and psychiatric disorders. *(Co-requisites: NURS 1050, 1061L, 2541P, PSYC 2510 or NURS 1050, 1061L, 2545P, PSYC 2510) (Pre-requisites: BIOL 1010, BIOL 2000, MATH 1010, MICR 1000, MICR 1011L, NURS 1000, 1300, 1311L, 1321P or BIOL 1010, BIOL 2000, MATH 1010, MICR 1000, MICR 1011L, NURS 1000, 1300, 1311L, 1315P)*

**NURS 2541P: Practice of Nursing Care in Mental Health and Psychiatry: 1.5 credits**

Students will apply the nursing process to provide direct care to clients with mental health and psychiatric disorders at various stages of growth and development. Students will develop nursing activities aimed at promoting, restoring and

maintaining mental health. At all times a focus will be toward the ethical- legal responsibilities of the nurse when providing mental health care and psychiatric care at the primary, secondary and tertiary levels. *(Co-requisites: NURS 1050, 1061L, 2540, PSYC 2510) (Pre-requisites: BIOL 1010, BIOL 2000, MATH 1010, MICR 1000, MICR 1011L, NURS 1000, 1300, 1311L, 1321P)*

**NURS 2545P: Practice of Nursing Care in Mental Health and Psychiatry: 1.5 credits**

In this course, students will apply the nursing process to provide direct care to clients, families, and communities with acute and chronic psychiatric, behavioral, and cognitive conditions in different stages of growth and development. In addition, they will implement activities for the promotion, maintenance, and restoration of mental health, focusing on the ethical and legal responsibilities of nurses in mental health care and psychiatric care at the primary, secondary, and tertiary levels. In addition, they will cover clinical instruction in teaching skills and health counseling. Students will perform clinical practicum in simulated laboratories and in different healthcare settings. This course includes the use of simulator. *(Co-requisites: NURS 1050, 1061L, 2540, PSYC 2510) (Pre-requisites: BIOL 1010, BIOL 2000, MATH 1010, MICR 1000, MICR 1011L, NURS 1000, 1300, 1311L, 1315P)*

**NURS 2550: Nursing Interventions with the Adult and Elder I: 3 credits**

In this course, students will analyze the most common pathophysiologies and nursing interventions for adult and elderly clients. They will examine cellular-level alterations, such as inflammation, cancer, HIV/AIDS, oxygenation, fluid/electrolyte imbalance, and metabolic imbalance, as well as disorders of the sensory-perceptual, respiratory, cardiovascular, hematologic, and reproductive systems. Students will apply critical thinking and clinical judgment to select the most appropriate therapeutic regimens, grounded in evidence-based practice and technology. Additionally, they will employ effective therapeutic communication with patients and their families, considering cultural diversity, individual uniqueness, and human responses that characterize them in activities that promote health and prevent diseases affecting adults and the elderly. Furthermore, they will demonstrate adherence to professional ethics

and nursing laws related to the planning and implementation of patient care. *(Co-requisites: NURS 2551P or NURS 2555P) (Pre-requisites: BIOL 1010, BIOL 2000, MATH 1010, MICR 1000, 1011L, NURS 1000, 1050, 1061L, 1300, 1311L, 1321P or BIOL 1010, BIOL 2000, MATH 1010, MICR 1000, 1011L, NURS 1000, 1050, 1061L, 1300, 1311L, 1315P)*

**NURS 2551P: Simulation and Practice of Nursing Interventions with the Adult and Elder I: 2 credits**

In this course, the student will demonstrate an evidence-based practice through clinical experiences with adults and the elderly who exhibit commonly occurring human responses to health challenges from within the concepts of oxygenation (cardiac and respiratory), inflammation, fluid/electrolyte balance, sensory/perceptual, cellular damage (surgery) and reproductive stability. Student will also demonstrate skills with therapeutic communication, nursing care planning, attention to diversity, and, the incorporation of legal/ethical considerations during nursing interventions with the adult and elderly client.

*(Co-requisites: NURS 2550) (Pre-requisites: BIOL 1010, BIOL 2000, MATH 1010, MICR 1000, 1011L, NURS 1000, 1050, 1061L, 1300, 1311L, 1321P)*

**NURS 2555P: Simulation and Practice of Nursing Interventions with the Adult and Elder I: 2 credits**

In this course, students will demonstrate the competencies for managing therapeutic regimens, planning nursing care, being attentive to diversity, and activities for promoting health and prevention of diseases that affect adults and the elderly. Students will perform their clinical practice in simulated laboratories and different healthcare settings. This course includes the use of simulation. *(Co-requisites: NURS 2550) (Pre-requisites: BIOL 1010, BIOL 2000, MATH 1010, MICR 1000, 1011L, NURS 1000, 1050, 1061L, 1300, 1311L, 1315P)*

**NURS 2620: Nursing Interventions with the Mother and Newborn: 3 credits**

In this course the students will analyze the fundamental concepts, historical evolution, and ethical-legal aspects in the care of the mother and newborn. Students will review the anatomy

and function of the female and male reproductive system and evaluate the process of nursing intervention in the direct care of the mother and newborn. They will discern the nursing role during antepartum, childbirth, postpartum, and newborn stages. This includes discussion of the anticipated physical and neurological changes and the general complications during the maternal and newborn periods. This course includes the use of simulation. *(Co-requisites: NURS 2621P or NURS 2625P) (Pre-requisites: BIOL 1010, BIOL 2000, MATH 1010, MICR 1000, 1011L, NURS 1000, 1050, 1061L, 1300, 1311L, 1321P or BIOL 1010, BIOL 2000, MATH 1010, MICR 1000, 1011L, NURS 1000, 1050, 1061L, 1300, 1311L, 1315P)*

**NURS 2621P: Simulation and Practice of Nursing Interventions with the Mother and Newborn: 1.5 credits**

In this course, students will demonstrate their skills in evidence-based practice through clinical experiences and the application of necessary nursing skills for assisting the mother and newborn to adapt to physiological and psychological changes that occur in childbearing and the newborn phases of development. This includes care of the high risk mother and newborn. *(Co-requisites: NURS 2620) (Pre-requisites: BIOL 1010, BIOL 2000, MATH 1010, MICR 1000, 1011L, NURS 1000, 1050, 1061L, 1300, 1311L, 1321P)*

**NURS 2625P: Simulation and Practice of Nursing Interventions with the Mother and Newborn: 1.5 credits**

In this course, students will demonstrate competencies in the direct care of mother and newborn by applying the nursing process. They will also apply the necessary nursing skills to assist the mother and newborn to adapt to the psychological and physiological changes occurring during the different pregnancy stages and the newborn's development phases. Students will perform their clinical practice in simulated laboratories and different healthcare settings. This course includes the use of simulation. *(Co-requisites: NURS 2620) (Pre-requisites: BIOL 1010, BIOL 2000, MATH 1010, MICR 1000, 1011L, NURS 1000, 1050, 1061L, 1300, 1311L, 1315P)*

**NURS 2630: Nursing Interventions with the Adult and Elder II: 3 credits**

In this course, students will examine the physiological changes that occur in adults and the elderly during the aging process. They will analyze the causes and common pathophysiology that affects individual stages of adulthood and old age to include the body structure and function. Students will use the nursing process to assess, plan, implement and evaluate selected nursing interventions required for the direct care of adult and elderly. Furthermore, this course offers supplementary guidance in areas such as nutrition, personal care, and the development of cultural and interpersonal relationship skills. This course includes the use of simulation. *(Co-requisites: NURS 2631P or NURS 2635P) (Pre-requisites: BIOL 1010, BIOL 2000, MATH 1010, MICR 1000, 1011L, NURS 1000, 1050, 1061L, 1300, 1311L, 1321P, 2550, 2551P or BIOL 1010, BIOL 2000, MATH 1010, MICR 1000, 1011L, NURS 1000, 1050, 1061L, 1300, 1311L, 1315P, 2550, 2555P)*

**NURS 2631P: Simulation and Practice of Nursing Interventions with the Adult and Elder II: 2 credits**

In this course, students will demonstrate an evidence-based practice through their clinical experiences while caring for clients with health challenges to the digestive, renal, endocrine, nervous and muscle/skeletal systems. They will apply the principles of growth and development, therapeutic communications, information management, legal/ethical behaviors and cultural sensitivity while implementing skills in the care of adults and the elderly. They will discuss the nursing process in the care of adults and elderly with functional changes of the gastrointestinal, neurological and skeletal muscle, urinary elimination and endocrine system. *(Co-requisites: NURS 2630) (Pre-requisites: BIOL 1010, BIOL 2000, MATH 1010, MICR 1000, 1011L, NURS 1000, 1050, 1061L, 1300, 1311L, 1321P, 2550, 2551P)*

**NURS 2635P: Simulation and Practice of Nursing Interventions with the Adult and Elder II: 2 credits**

In this course, students will demonstrate competencies required for the direct care of adults or the elderly. They will also apply the principles of growth and development,



therapeutic communication, information management, legal-ethical aspects, and activities to promote health and prevent diseases that affect adults and the elderly. Students will perform their clinical practice in simulated laboratories and different healthcare settings. *(Co-requisites: NURS 2630) (Pre-requisites: BIOL 1010, BIOL 2000, MATH 1010, MICR 1000, 1011L, NURS 1000, 1050, 1061L, 1300, 1311L, 1315P, 2550, 2555P)*

**NURS 2710: Nursing Interventions with Children and Adolescents: 3 credits**

In this course, students will describe concepts related to the health of children and adolescents, as well as the historical background and evaluation of pediatric nursing care. They will integrate the education process into the pediatric client and family in the promotion and prevention of health through different stages of growth and development. Students will integrate the process of nursing interventions to maintain and promote the physiological, psychological, social, and spiritual integrity of children and adolescents. This course includes the use of simulation. *(Co-requisites: NURS 2721P or NURS 2725P) (Pre-requisites: BIOL 1010, BIOL 2000, MATH 1010, MICR 1000, 1011L, NURS 1000, 1050, 1061L, 1300, 1311L, 1321P, 2550, 2551P or BIOL 1010, BIOL 2000, MATH 1010, MICR 1000, 1011L, NURS 1000, 1050, 1061L, 1300, 1311L, 1315P, 2550, 2555P)*

**NURS 2721P: Simulation and Practice of Nursing Interventions with Child and Adolescent: 1.5 credits**

In this course, students will demonstrate an evidence-based practice through their clinical experiences. They will apply the knowledge, skills and attitudes required of the nurse while providing care to children and adolescents. Students will assess health and fitness to collect data and write nursing plans for children and adolescents. They will present the findings of research-based health disorders in children and adolescents using the nursing process as a tool to plan and implement evidence-based care. *(Co-requisites: NURS 2710) (Pre-requisites: BIOL 1010, BIOL 2000, MATH 1010, MICR 1000, 1011L, NURS 1000, 1050, 1061L, 1300, 1311L, 1321P, 2550, 2551P)*

**NURS 2725P: Simulation and Practice of Nursing Interventions with Child and Adolescent: 1.5 credits**

In this course, students will demonstrate the necessary knowledge and competencies for children and adolescent nursing care in simulations and clinical practice. They will also analyze the health and physical state of children and adolescents according to a care plan adjusted to the patient's needs. Students will consider the growth and development principles, therapeutic communication, information management, legal-ethical aspects, and activities to promote health and prevent diseases in the direct care of children and adolescents. Furthermore, students will apply care plans intended for children, adolescents, and their families according to their health conditions, through research and evidence-based practice. This course includes the use of simulation. *(Co-requisites: NURS 2710) (Pre-requisites: BIOL 1010, BIOL 2000, MATH 1010, MICR 1000, 1011L, NURS 1000, 1050, 1061L, 1300, 1311L, 1315P, 2550, 2555P)*

**NURS 2730: Integrating Seminar of Nursing: 2 credits**

In this course, students will analyze health concepts and the levels of care as reflected by the professional competencies needed to offer nursing care to patients, families, and communities. They will utilize the nursing process to assess a safe and effective care environment, health promotion and maintenance, psychosocial, integrity, and physiological integrity. They will apply multiple study and testing strategies to expand their critical thinking for assertive decision-making and resolution of patient health issues. The students will explain the regulations, policies, safety certifications, and nursing board processes that regulate the nursing practice profession. This course includes the use of simulation and computer testing. *(Co-requisites: None) (Pre-requisites: BIOL 1010, BIOL 2000, MATH 1010, MICR 1000, MICR 1011L, NURS 1000, 1050, 1061L, 1300, 1311L, 1321P, 2540, 2541P, 2550, 2551P, 2620, 2621P or BIOL 1010, BIOL 2000, MATH 1010, MICR 1000, MICR 1011L, NURS 1000, 1050, 1061L, 1300, 1311L, 1315P, 2540, 2545P, 2550, 2555P, 2620, 2625P)*



**NURS 3006: Transition of the Role of Nurses in Current Society: 3**

In this course, students will evaluate the historical evolution of the nursing profession, holistic concepts, nursing theories, and the levels of education in the practice of the profession. They will examine ethical and legal principles, cultural diversity in the face of professional challenges, and the role of the profession within the evolving healthcare system. Additionally, students will assess research findings, evidence-based practice, and the integration of technology into the nursing profession within contemporary society. *(Co-requisites: None) (Pre-requisites: NURS 1000)*

**NURS 3015: Physical Assessment: 3 credits**

In this course, students will assess the history of the role of nursing in holistic care health assessment for adult and elderly clients. They will learn about physical assessment methodology and the techniques of performing the physical exam as part of the nursing professional role. Included will be attention to documenting a clients' health history and physical exam as part of the process for clinical decision-making. This course includes the use of simulator. *(Co-requisites: None) (Pre-requisites: NURS 1000, 1050, 1061L, 1300, 1311L, 1321P, 2540, 2541P, 2550, 2551P, 2620, 2621P, 2630, 2631P, 2710, 2721P or NURS 1000, 1050, 1061L, 1300, 1311L, 1315P, 2540, 2545P, 2550, 2555P, 2620, 2625P, 2630, 2635P, 2710, 2725P)*

**NURS 3040: Informatics in Healthcare Systems: 3 credits**

In this course, students will examine the fundamental concepts and roles of nursing professionals regarding informatics and their use. They will also analyze the management, practices and applications of information systems in clinical and educational settings; and, explain the ethical and legal controversies involved when dealing with information in a healthcare system. At the same time, they will evaluate the impact of technology and its applications in clinical, educational and research environments. This course includes the use of simulator. *(Co-requisites: None) (Pre-requisites: NURS 1000)*

**NURS 3050: Research in Nursing: 3 credits**

In this course, students will evaluate the role, as well as the importance, of research in professional nursing practice, including the conducting and dissemination of research and its principles and evidence-based practice models. They will also examine the ethical and legal considerations related to the subjects within nursing research. In addition, they will describe the nursing research process and interpret evidence-based research in order to apply it to nursing practice. *(Pre-requisites: MATH 1010, NURS 3006, STAT 2000)*

**NURS 3055: Leadership and Management: 3 credits**

In this course, the student will analyze concepts of leadership and management, as well as the necessary tools for the fulfillment of the nursing professional role in light of new perspectives in health services administration. The student will evaluate theories and models for management practice in nursing. The student will design effective organizational structures for determining administrative and management resources applicable to nursing services. Also, the student will justify the importance of establishing effective and safe work environments in order to sustain the motivation of the nursing professional and the quality of the health services. This course includes the use of simulator. *(Co-requisites: None) (Pre-requisites: NURS 3006)*

**NURS 3130: Critical Interventions in Professional Nursing with Adults: 3 credits**

In this course, students will examine the importance of the role of nursing and holistic care in the critical care environment for adult patients and their families. They will also value the role of the nursing professional when caring for critically ill adults. Students will differentiate between diagnoses and treatments in the collaborative management of critical conditions. In addition, they will analyze the nursing skills required for care of critical and acute pathological conditions in adults that require intensive care. This course includes the use of simulator. *(Co-requisites: None) (Pre-requisites: NURS 3006, 3015)*

**NURS 4000: Global and National Health Policies: 3 credits**

In this course, students will analyze national and global health policies and their financing. They

will also evaluate the processes for health service rendering, the field's ethical-legal aspects at national and global levels, and the role of the nursing professional. Students will examine the principles of public policy in the rendering of services at a national and global level, as well as the influence of epidemiology and Healthy People 2030 have had on the tendencies and controversies of the national and global health systems. This course includes the use of simulator. *(Co-requisites: None) (Pre-requisites: NURS 3006)*

**NURS 4020: Nursing Interventions with families and communities: 3 credits**

In this course, students will apply the nursing process to the client, their family, and the community. They will demonstrate leadership skills in the promotion of health and disease prevention for the client, their family, and the community. Students will integrate the principles of public health in the nursing process to promote health and control risks in groups and populations through the primary, secondary, and tertiary levels of prevention in the community's health. This course includes the use of simulator. *(Co-requisites: NURS 4021P or 4025P, 4021 or 4025 \*RN-BSN) (Pre-requisites: NURS 3006, 3015, 3050, 3055)*

**NURS 4021/4021P: Practice in Nursing Interventions with families and communities: 2 credits**

In this course, students will apply their knowledge of nursing, as well as their communication, interpersonal relationship and humanistic care skills. They will also put their leadership, management, teaching, and critical thinking knowledge into practice when assessing healthcare, planning, coordinating, implementing and evaluating the care given to populations and groups. In addition, they will apply their research findings. Students will also implement practices on selected populations within a community setting. *(Co-requisites: NURS 4020)(Pre-requisites: NURS 3006, 3015, 3050, 3055)*

**NURS 4025/4025P: Practice in Nursing Interventions with families and communities: 2 credits**

In this course, students will apply competencies required for the direct care of patients, families, and communities based on the nursing process.

They will also demonstrate skills for communication, interpersonal relations, leadership, management, teaching, and critical thinking in the treatment of patients, their families, and communities. Furthermore, students will perform their clinical practice in communities or simulated environments with diverse populations or groups. This course includes the use of simulator. *(Co-requisites: NURS 4020) (Pre-requisites: NURS 3006, 3015, 3050, 3055)*

**NUTR 1000: Introduction to Nutrition: 2 credits**

In this course, students will assess the importance of nutrition in the wellbeing and promotion of health of the client. They will analyze the process of digestion, absorption, metabolism, and excretion of food and its nutrients. Likewise, they will evaluate the influence of food in the stages of growth and development, in weight management, and in most common health disorders.

**PSYC 2510: Psychology: 3 credits**

In this course, students will value the historical development and basic concepts of psychology, and its contribution to the scientific and social fields. They will examine the functions of the nervous, limbic, and endocrine systems and their influence on the cognitive, behavioral, and affective functions of the individual. Moreover, they will analyze theories of human development, learning, personality, and motivation, among others, and their contributions to understanding the human lifecycle within current psychology.

**STAT 2000: Introduction to Statistics: 3 credits**

In this course, students will apply descriptive statistics and its key concepts in different professional scenarios. They will analyze several methods for collecting, summarizing, presenting, and interpreting quantitative and categorical data, as well as graphs for grouped and ungrouped data. Likewise, students will explain the nature of probability distribution and its application in practical situations (Pre-requisite MATH 1010)

***UNDERGRADUATE  
BUSINESS ADMINISTRATION  
ACADEMIC PROGRAMS***

## Bachelor's Degree in Business Administration with Major in Accounting

### OBJECTIVE

The Bachelor's Degree in Business Administration with Major in Accounting trains students in the knowledge and skills necessary to perform in entry-level business administration with an emphasis in accounting. Furthermore, students will be prepared with the analysis, research, synthesis, and interpretation skills of the accounting cycle from the approach of costs, tax, and forensic, operational, and systems audit for decision making. In addition, students will learn accounting theory and principles applicable to government and non-profit organizations, as well as an understanding of the technology involved in the configuration of an accounting information system.

### PROGRAM COMPETENCIES

1. Apply theoretical and practical knowledge of the complete accounting cycle in individual and corporate businesses, the government, and non-profit entities in order to generate financial information to be used in decision making and problem solving.
2. Logically and critically analyze financial information resulting from procedures related to cost accounting, tax aspects, and company audit processes.
3. Effectively communicate verbally and in writing in Spanish and English, developing creativity and sensibility for an assertive communication.
4. Use technological and informative means that facilitate the company's accounting management in order to produce trustworthy and useful information for operations and financial resources management.
5. Demonstrate, as an accounting professional, collaborative work skills with a high sense of responsibility, legal compliance, respect for diversity, and good moral and ethical judgment.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC

University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

40 Credits in General Education  
39 Credits in Core Courses  
45 Credits in Major Courses  
6 Credits in Elective Courses

### 130 Total Credits

### GENERAL EDUCATION:

BISC 1010	Biological Sciences	3
ENGL 1010*	Basic English I	3
ENGL 1020	Basic English II	3
ENGL 2050	Conversational English	3
HUMA 1010	Humanities I	3
HUMA 1020	Humanities II	3
SOSC 1010	Social Sciences I	3
SOSC 1020	Social Sciences II	3
ITTE 1031L	Computer Literacy and Laboratory	3
MATH 1010*	Basic Mathematics	3
SPAN 1010*	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
SPAN 2040	Writing and Composition	3
SEMI 1001*	University Environment Seminar	1
		<b>40</b>

### CORE COURSES:

BUAD 2000	Fundamentals of Management	3
BUAD 3000	Human Resources Administration	3
BUAD 3010	Compared Management	3
BUAD 3050*	Ethics in Business	3
BUAD 4000* <sup>1</sup>	Integrative Seminar Business Administration	3
BUMA 1000	Introduction to Business	3
ECON 2000*	Micro Economics	3
ECON 3200*	Macro Economics	3
FINA 2100*	Finance and Cash Flow	3
MATH 1050*	Business Mathematics	3
MATH 2080*	Quantitative Methods	3
MKTG 1010	Marketing Principles	3
STAT 2000	Introduction to Statistics	3
		<b>39</b>

### MAJOR COURSES:

ACCO 1000	Introduction to Accounting I	4
ACCO 1050	Introduction to Accounting II	4
ACCO 2100	Intermediate Accounting I	3
ACCO 2200**	Puerto Rican Taxes	3

ACCO 2270L	Computerized Accounting and Laboratory	4
ACCO 3150	Intermediate Accounting II	3
ACCO 3320	Federal Taxes	3
ACCO 3420	Introduction to Cost Accounting	3
ACCO 3550	Accounting Information Systems	3
ACCO 4000	Accounting for Government and Not-For-Profit Entities	3
ACCO 4220	Principles of Auditing	3
ACCO 4400	Advanced Accounting	3
ACCO 4500	Forensic Accounting	3
ACCO 4550	Operational and Systems Auditing	3
		<b>45</b>

#### **ELECTIVE COURSES**

Direct Elective	3
Elective	3
	<b>6</b>

**TOTAL CREDITS 130**

#### **NOTES:**

- \*All general and core courses with an asterisk and all major and elective courses must be passed with at least a "C" grade.
- \*\*Students residing outside PR may decide to take the ACCO 2200 course or substitute it for a free, directed or recommended elective.
- <sup>1</sup>This course includes the use of simulator.
- Course weeks may vary depending on the program offering, which has a total length of approximately 160 weeks.
- Electives depend on the academic offering available in each term. Students should consult with their academic advisor.
- This program will be offered through the on ground and online delivery mode.

#### **Direct elective:**

EXCL 1000L	Basic Excel	3
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#### **Recommended electives at undergraduate level:**

BUAD1020	Business Information Systems	3
BUAD 2050	Business Law	3
FINA 1020	Financial Statements Analysis	3

#### **Recommended electives at graduate-level<sup>+</sup>:**

ACCE 5000	Financial Accounting I	3
ACCE 5010	Regulations	3

<sup>+</sup>The electives at the graduate-level are recommended for students interested in pursuing a Master's degree or Graduate Certification in this area at NUC University.

# Bachelor's Degree in Business Administration with Major in Business Intelligence

## OBJECTIVE

The Bachelor's Degree in Business Administration with major in Business Intelligence will prepare students with the essential knowledge and skills for data collection, extraction, analysis, and visualization. Students will apply analytical techniques and tools to transform data into valuable information that supports strategic decision-making. Additionally, they will present comprehensive solutions that help organizations effectively achieve their goals and objectives.

## PROGRAM COMPETENCIES

1. Analyze relevant information to create reports that support managerial decision-making.
2. Communicate relevant and meaningful information derived from data analysis, both orally and in writing, in English and Spanish, using a creative and assertive approach.
3. Examine the economic, sociological, ethical, and political problems of the contemporary world critically to contribute to society and improve the quality of life.
4. Demonstrate skills for establishing data relationships, identifying patterns, and developing conclusions.
5. Use applications for data extraction, transformation, and visualization through dynamic tables and graphs.
6. Manage business data ethically and responsibly, ensuring the privacy and confidentiality of information.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS:

40 Credits in General Education  
50 Credits in Core Courses  
24 Credits in Major Courses  
6 Credits in Electives

**120 Total Credits**

## GENERAL EDUCATION:

BISC 1010	Biological Sciences	3
ENGL 1010*	Basic English I	3
ENGL 1020	Basic English II	3
ENGL 2050	Conversational English	3

HUMA 1010	Humanities I	3
HUMA 1020	Humanities II	3
ITTE 1031L	Computer Literacy and Laboratory	3
MATH 1010*	Basic Mathematics	3
SEMI 1010*	Transition to University Life and Professional Training Seminar	1
SOSC 1010	Social Sciences I	3
SOSC 1020	Social Sciences II	3
SPAN 1010*	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
SPAN 2040	Writing and Composition	3
		<b>40</b>

## CORE COURSES

ACCO 1000	Introduction to Accounting I	4
ACCO 3520	Managerial Accounting	4
BUAD 1020	Business Information Systems	3
BUAD 2000	Fundamentals of Management	3
BUAD 3000	Human Resources Administration	3
BUAD 3010	Compared Management	3
BUAD 3050	Ethics in Business	3
BUAD 4000 <sup>1</sup>	Integrative Seminar Business Administration	3
BUMA 1000	Introduction to Business	3
ECON 2000	Micro Economics	3
ECON 3200	Macro Economics	3
FINA 2100	Finance and Cash Flow	3
MATH 1050	Business Mathematics	3
MATH 2080	Quantitative Methods	3
MKTG 1010	Marketing Principles	3
STAT 2000	Introduction to Statistics	3
		<b>50</b>

## MAJOR COURSES

BUIN 1015	Introduction to Business Intelligence	3
BUIN 1020	Introduction to Data Base	3
BUIN 2000	Decision Support Systems	3
BUIN 2010	Business Analytics	3
BUIN 3000	MS Excel for Business Intelligence	3
BUIN 3015	Database Management	3
BUIN 4000	Data Warehousing, Data Mining and Data Analysis	3
BUIN 4015	Business Intelligence Solutions for Companies	3
		<b>24</b>

## ELECTIVES

**TOTAL CREDITS 120**

## NOTES:

- \*All general education courses with an asterisk and all core, major and elective courses must be passed with at least a "C" grade.
- <sup>1</sup>This course includes the use of simulator.
- Course weeks may vary depending on the program offering, which has a total length of approximately 144 weeks.



# Bachelor's Degree in Business Administration with Major in Finance

## OBJECTIVE

The Bachelor's Degree in Business Administration with major in Finance provides students with the basic knowledge and skills necessary to perform an analysis of a company's financial position, which allows top management to make strategic decisions with the purpose of optimizing financial resources. Additionally, it prepares students in the fields of risk, insurance, personal finances, bank administration and investments.

## PROGRAM COMPETENCIES

1. Interpret the basic financial statements of a company to express an informed opinion about its financial information.
2. Examine activities that take place within the financial industry to present options and recommendations that contribute to the strategic plan of the company.
3. Analyze risks companies are exposed to, in order to identify alternatives to manage them.
4. Use verbal and written communication skills effectively and efficiently in a professional setting, adapted to the communication style of a finance department.
5. Examine the economic, cultural, social and political environment of companies, in order to develop plans and financial policies that lead to recommending ethical solutions to financial problems.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

40 Credits in General Education  
54 Credits in Core Courses  
24 Credits in Major Courses  
3 Credits in Elective Courses

**121 Total Credits**

## GENERAL EDUCATION:

BISC 1010	Biological Sciences	3
ENGL 1010*	Basic English I	3
ENGL 1020	Basic English II	3
ENGL 2050	Conversational English	3
HUMA 1010	Humanities I	3
HUMA 1020	Humanities II	3

ITTE 1031L	Computer Literacy and Laboratory	3
MATH 1010*	Basic Mathematics	3
SEMI 1001*	University Environment Seminar	1
SOSC 1010	Social Sciences I	3
SOSC 1020	Social Sciences II	3
SPAN 1010*	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
SPAN 2040	Writing and Composition	3
		<b>40</b>

## CORE COURSES

ACCO 1000	Introduction to Accounting I	4
ACCO 1050	Introduction to Accounting II	4
ACCO 3520	Managerial Accounting	4
BUAD 1020	Business Information Systems	3
BUAD 2000	Fundamentals of Management	3
BUAD 2050	Business Law	3
BUAD 3000	Human Resources Administration	3
BUAD 3050	Ethic in Business	3
BUAD 4000 <sup>1</sup>	Integrative Seminar Business Administration	3
BUMA 1000	Introduction to Business	3
ECON 2000	Microeconomics	3
ECON 3200	Macroeconomics	3
FINA 2100	Finance and Cash Flow	3
MATH 1050	Business Mathematics	3
MATH 2080	Quantitative Methods	3
MKTG 1010	Marketing Principles	3
STAT 2000	Introduction to Statistics	3
		<b>54</b>

## MAJOR COURSES

FINA 1020	Financial Statements Analysis	3
FINA 1050	Financial Modeling	3
FINA 2400	Financial Management	3
FINA 2700	Money and Banking	3
FINA 3000	Financial Markets	3
FINA 3200	Personal Finance	3
FINA 4000	Fundamentals of Investments	3
FINA 4010	Risk Management and Insurance	3
		<b>24</b>

## ELECTIVES

EXCL 1000L	Basic Excel (Directed Elective)	3
		<b>3</b>

## TOTAL CREDITS

**121**

## NOTES:

- \*All general education with an asterisk and all core and major courses must be passed with at least a "C" grade.
- <sup>1</sup>This course includes the use of simulator.
- Course weeks may vary depending on the program offering, which has a total length of approximately 144 weeks.



# Bachelor's Degree in Business Administration with Major in General Business

## OBJECTIVE

The bachelor's degree program in Business Administration with major in General Business provides students with the necessary knowledge, skills, and abilities to apply management principles to contemporary business problems, lead organizations, and use business theories according to their global relevance and application.

## PROGRAM COMPETENCIES

1. Comprehend the nature and operation of businesses in a domestic and international context.
2. Critically analyze business problems to devise creative and innovative solutions.
3. Use technology and other means to search for information during the business analysis and decision-making process.
4. Assertively communicate their ideas in Spanish and in English in a logical, concise, and clear manner.
5. Manage a business ethically and with a sense of duty.
6. Examine the economic, cultural, social, and political environments surrounding the business to develop projects that comply with the organization's strategic objectives.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS:

40 Credits in General Education  
50 Credits in Core Courses  
24 Credits in Major Courses  
6 Credits in Electives

**120 Total Credits**

## GENERAL EDUCATION:

BISC 1010	Biological Sciences	3
ENGL 1010*	Basic English I	3
ENGL 1020	Basic English II	3
ENGL 2050	Conversational English	3
HUMA 1010	Humanities I	3
HUMA 1020	Humanities II	3
SOSC 1010	Social Sciences I	3
SOSC 1020	Social Sciences II	3
ITTE 1031L	Computer Literacy and	

	Laboratory	3
MATH 1010*	Basic Mathematics	3
SPAN 1010*	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
SPAN 2040	Writing and Composition	3
SEMI 1010*	Transition to University Life and Professional Training Seminar	1
		<b>40</b>

## CORE COURSES

ACCO 1000	Introduction to Accounting I	4
ACCO 3520	Managerial Accounting	4
BUAD 1020	Business Information Systems	3
BUAD 2000	Fundamentals of Management	3
BUAD 3000	Human Resources Administration	3
BUAD 3010	Compared Management	3
BUAD 3050	Ethics in Business	3
BUAD 4000 <sup>1</sup>	Integrative Seminar Business Administration	3
BUMA 1000	Introduction to Business	3
ECON 2000	Micro Economics	3
ECON 3200	Macro Economics	3
FINA 2100	Finance and Cash Flow	3
MATH 1050	Business Mathematics	3
MATH 2080	Quantitative Methods	3
MKTG 1010	Marketing Principles	3
STAT 2000	Introduction to Statistics	3
		<b>50</b>

## MAJOR COURSES

BUAD 2010	Policies and Business Strategy	3
BUAD 2040	Creativity and Innovation in Business	3
BUAD 2070	Entrepreneurship	3
BUAD 3020	Project Management for Administrators	3
BUAD 3190	Organizational Leadership	3
BUAD 3200	Change Management and Organizational Development	3
MGMT 1020	Operations Management	3
MKTG 2050	Introduction to Digital Marketing	3
		<b>24</b>

## ELECTIVES

**TOTAL CREDITS 120**

## NOTES:

- \*All general education courses with an asterisk and all core, major and elective courses must be passed with at least a "C" grade.
- <sup>1</sup>This course includes the use of simulator.
- Program offered only online.
- Course weeks may vary depending on the program offering, which has a total length of approximately 144 weeks.

## Bachelor's Degree in Business Administration with Major in Human Resources

### OBJECTIVE

The bachelor's degree program in Business Administration with major in Human Resources will train students with the knowledge inherent to the labor cycle and human capital management. It will foster the development of the skills and abilities necessary for the effective management of human talent through leadership, problem-solving, and supervision, among others. Finally, the program will prepare students with the global, inclusive, and strategic mentality necessary to manage the continuous changes in the professional field.

### PROGRAM COMPETENCIES

1. Demonstrate the theoretical and practical knowledge necessary for managing human talent in response to the internal and external needs of the organization.
2. Strategically develop the human talent for assertive solutions to problems and the achievement of goals and objectives in an organization.
3. Communicate effectively and efficiently, both verbally and in writing, using the communication styles typical of a human resources professional.
4. Assume an ethical and professional attitude in compliance with labor law and best practices in human talent management.
5. Demonstrate the global, inclusive, and strategic thinking necessary for managing organizational change.
6. Recognize the importance of technology in managing human talent effectively and efficiently.
7. Examine the economic, cultural, social, and political environment surrounding businesses to comply with the organization's strategic objectives.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC

University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS:

40 Credits in General Education

50 Credits in Core Courses

24 Credits in Major Courses

6 Credits in Electives

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### 120 Total Credits

### GENERAL EDUCATION:

BISC 1010	Biological Sciences	3
ENGL 1010*	Basic English I	3
ENGL 1020	Basic English II	3
ENGL 2050	Conversational English	3
HUMA 1010	Humanities I	3
HUMA 1020	Humanities II	3
ITTE 1031L	Computer Literacy and Laboratory	3
MATH 1010*	Basic Mathematics	3
SOSC 1010	Social Sciences I	3
SOSC 1020	Social Sciences II	3
SPAN 1010*	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
SPAN 2040	Writing and Composition	3
SEMI 1010*	Transition to University Life and Professional Training Seminar	1
		<b>40</b>

### CORE COURSES:

ACCO 1000	Introduction to Accounting I	4
ACCO 3520	Managerial Accounting	4
BUAD 1020	Business Information Systems	3
BUAD 2000	Fundamentals of Management	3
BUAD 3000	Human Resources Administration	3
BUAD 3010	Compared Management	3
BUAD 3050	Ethics in Business	3
BUAD 4000 <sup>1</sup>	Integrative Seminar Business Administration	3
BUMA 1000	Introduction to Business	3
ECON 2000	Micro Economics	3
ECON 3200	Macro Economics	3
FINA 2100	Finance and Cash Flow	3
MATH 1050	Business Mathematics	3
MATH 2080	Quantitative Methods	3
MKTG 1010	Marketing Principles	3
STAT 2000	Introduction to Statistics	3
		<b>50</b>

**MAJOR COURSES:**

HURE 1000	Talent Acquisition	3
HURE 1015	Development of Human Talent	3
HURE 2000	Total Compensation	3
HURE 2010	Leadership in Human Resources	3
HURE 3000	Human Resources Information Systems	3
HURE 3010	Employment and Labor Law	3
HURE 4000	Organizational Development and Effectiveness	3
HURE 4010	Strategic Management of Human Resources (Capstone)	3
		<b>24</b>

**ELECTIVES\*\*****6****TOTAL CREDITS****120****NOTES:**

- \*All general education courses with an asterisk and all core, major and elective courses must be passed with at least a "C" grade.
- <sup>1</sup>This course includes the use of simulator.
- Course weeks may vary depending on the program offering, which has a total length of approximately 144 weeks.
- \*\*Directed elective for all PR students

HURE 1090	Puerto Rico Labor Law	3
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# Bachelor's Degree in Business Administration with Major in Healthcare Management

## OBJECTIVE

The Bachelor's Degree in Business Administration with major in Healthcare Management will prepare students to provide support in the administrative management of organizations that provide health services. Students will apply the leadership skills necessary for their performance in administrative positions that do not require a professional license. Additionally, they will develop decision-making skills that promote ethics and compliance with laws and regulations applicable to the healthcare industry.

## PROGRAM COMPETENCIES

1. Apply knowledge and skills for the strategic administration of operations in organizations to ensure compliance with laws and regulations related to the health industry.
2. Demonstrate effective and assertive communication skills, both oral and written, for managing administrative situations professionally and promoting a positive workplace environment.
3. Evaluate critically and objectively the economic, sociological, ethical, and political challenges of today's world to formulate well-founded judgments and make informed decisions.
4. Analyze quantitative and qualitative data as part of evaluating health service management and developing reports to improve efficiency and effectiveness.
5. Utilize emerging technology and information systems efficiently for analysis and decision-making processes in health services administration.
6. Promote inclusion, respect for diversity, and appreciation of cultural and social richness in the workplace.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

40 Credits in General Education Courses  
50 Credits in Core Courses  
24 Credits in Major Courses  
6 Credits in Elective Courses

## 120 Total Credits

## GENERAL EDUCATION:

BISC 1010	Biological Sciences	3
ENGL 1010*	Basic English I	3
ENGL 1020	Basic English II	3
ENGL 2050	Conversational English	3
HUMA 1010	Humanities I	3
HUMA 1020	Humanities II	3
ITTE 1031L	Computer Literacy and Laboratory	3
MATH 1010*	Basic Mathematics	3
SOSC 1010	Social Sciences I	3
SOSC 1020	Social Sciences II	3
SPAN 1010*	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
SPAN 2040	Writing and Composition	3
SEMI 1010*	Transition to University Life and Professional Training Seminar	1
		<b>40</b>

## CORE COURSES:

ACCO 1000	Introduction to Accounting I	4
ACCO 3520	Managerial Accounting	4
BUAD 1020	Business Information Systems	3
BUAD 2000	Fundamentals of Management	3
BUAD 3000	Human Resources Administration	3
BUAD 3010	Compared Management	3
BUAD 3050	Ethics in Business	3
BUAD 4000 <sup>1</sup>	Integrative Seminar Business Administration	3
BUMA 1000	Introduction to Business	3
ECON 2000	Micro Economics	3
ECON 3200	Macro Economics	3
FINA 2100	Finance and Cash Flow	3
MATH 1050	Business Mathematics	3
MATH 2080	Quantitative Methods	3
MKTG 1010	Marketing Principles	3
STAT 2000	Introduction to Statistics	3
		<b>50</b>

## MAJOR COURSES:

HEMA 2000	Introduction to Health Services Management	3
HEMA 2010	Planning and Policies in	

HEMA 2020	Health Service Management 3 Operations Management in Health Services Organizations	3
HEMA 3000	Finance in Health Services Organizations	3
HEMA 3010	Information Systems in Health Services Organizations	3
HEMA 3020	Legal and Ethical Issues in Health Services Management	3
HEMA 4000	Risk Management and Compliance in Healthcare	3
HEMA 4010	Leadership in Health Services Organizations	3
		<b>24</b>
	<b>ELECTIVES</b>	<b>6</b>
	<b>TOTAL CREDITS</b>	<b>120</b>

**NOTES:**

- \*All general education courses with an asterisk and all core, major and elective courses must be passed with at least a "C" grade.
- <sup>1</sup>This course includes the use of simulator.
- Course weeks may vary depending on the program offering, which has a total length of approximately 144 weeks.

# Bachelor's Degree in Business Administration with Major in International Business

## OBJECTIVE

The Bachelor's Degree in Business Administration with major in International Business prepares students with the knowledge and skills necessary to perform within the international business environment. It will also prepare students to adapt to the global environment, rapidly changing through the knowledge of economic, political, legal, ethical, and international aspects of businesses.

## PROGRAM COMPETENCIES

1. Ability to communicate effectively, in oral and written form, in English and in Spanish, while employing creativity and sensibility towards an assertive communication.
2. Critically analyze economic, sociological, ethical, and political problems in the world to contribute to society and improve the quality of life.
3. Efficiently use technology and other media in the search of information for analysis and decision-making processes in businesses.
4. Examine the economic, socio-cultural, and legal-political environments surrounding international businesses.
5. Apply their knowledge and skills in organizations, while identifying opportunities and threats and developing strategies within the area of international business management.
6. Perform efficiently with the knowledge, skills, and attitudes needed to implement solutions with a sense of duty and ethical reasoning.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

40 Credits in General Education Courses

50 Credits in Core Courses

24 Credits in Major Courses

6 Credits in Elective Courses

## 120 Total Credits

### GENERAL EDUCATION:

BISC 1010	Biological Sciences	3
ENGL 1010*	Basic English I	3
ENGL 1020	Basic English II	3
ENGL 2050	Conversational English	3
HUMA 1010	Humanities I	3
HUMA 1020	Humanities II	3
ITTE 1031L	Computer Literacy and Laboratory	3
MATH 1010*	Basic Mathematics	3
SOSC 1010	Social Sciences I	3
SOSC 1020	Social Sciences II	3
SPAN 1010*	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
SPAN 2040	Writing and Composition	3
SEMI 1001*	University Environment Seminar	1
		<b>40</b>

### CORE COURSES:

ACCO 1000	Introduction to Accounting I	4
ACCO 3520	Managerial Accounting	4
BUAD 1050	Multiculturalism	3
BUAD 2000	Fundamentals of Management	3
BUAD 3000	Human Resources Administration	3
BUAD 3010	Compared Management	3
BUAD 3050	Ethics in Business	3
BUAD 4000 <sup>1</sup>	Integrative Seminar Business Administration	3
BUMA 1000	Introduction to Business	3
ECON 2000	Micro Economics	3
ECON 3200	Macro Economics	3
FINA 2100	Finance and Cash Flow	3
MATH 1050	Business Mathematics	3
MATH 2080	Quantitative Methods	3
MKTG 1010	Marketing Principles	3
STAT 2000	Introduction to Statistics	3
		<b>50</b>

### MAJOR COURSES:

BUAD 2010	Policies and Business Strategies	3
BUAD 2050	Business Law	3
HURE 1070	International Labor Law	3

INBU 1000	Introduction to International Business	3
INBU 1010	International Finance	3
INBU 1020	International Marketing	3
INBU 1030	International and Multicultural Management	3
INBU 1040	Legal Issues in International Business	3
		<b>24</b>
	<b>ELECTIVES</b>	<b>6</b>
	<b>TOTAL CREDITS</b>	<b>120</b>

**NOTES:**

- \*All general education courses with an asterisk and all core, major and elective courses must be passed with at least a "C" grade.
- <sup>1</sup>This course includes the use of simulator.
- Program offered only online.
- Course weeks may vary depending on the program offering, which has a total length of approximately 144 weeks.



# Bachelor's Degree in Business Administration with Major in Management

## OBJECTIVE

The Bachelor's Degree in Business Administration with major in Management will equip students with the knowledge and competencies necessary for planning, organizing, directing, and controlling businesses. Students will develop skills in supervision, leadership, and data analysis for informed decision-making. In addition, they will foster innovation and sustainability in their work environment.

## PROGRAM COMPETENCIES

1. Integrate knowledge of business administration to identify, analyze, and resolve managerial problems in compliance with current regulations, contributing to the economic and social development of their environment.
2. Demonstrate effective and assertive communication skills, both oral and written, for managing work situations professionally and promoting a positive workplace environment.
3. Evaluate quantitative and qualitative data logically and critically to formulate innovative and creative options that improve efficiency and effectiveness in organizational management.
4. Use technological tools efficiently for data analysis and strategic decision-making in business environments.
5. Promote inclusion, respect for diversity, and appreciation of cultural and social richness in the workplace.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

40 Credits in General Education Courses  
50 Credits in Core Courses  
24 Credits in Major Courses  
6 Credits in Elective Courses

**120 Total Credits**

## GENERAL EDUCATION:

BISC 1010	Biological Sciences	3
ENGL 1010*	Basic English I	3
ENGL 1020	Basic English II	3
ENGL 2050	Conversational English	3
HUMA 1010	Humanities I	3
HUMA 1020	Humanities II	3

ITTE 1031L	Computer Literacy and Laboratory	3
MATH 1010*	Basic Mathematics	3
SOSC 1010	Social Sciences I	3
SOSC 1020	Social Sciences II	3
SPAN 1010*	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
SPAN 2040	Writing and Composition	3
SEMI 1010*	Transition to University Life and Professional Training Seminar	1
		<b>40</b>

## CORE COURSES:

ACCO 1000	Introduction to Accounting I	4
ACCO 3520	Managerial Accounting	4
BUAD 1020	Business Information Systems	3
BUAD 2000	Fundamentals of Management	3
BUAD 3000	Human Resources Administration	3
BUAD 3010	Compared Management	3
BUAD 3050	Ethics in Business	3
BUAD 4000 <sup>1</sup>	Integrative Seminar Business Administration	3
BUMA 1000	Introduction to Business	3
ECON 2000	Micro Economics	3
ECON 3200	Macro Economics	3
FINA 2100	Finance and Cash Flow	3
MATH 1050	Business Mathematics	3
MATH 2080	Quantitative Methods	3
MKTG 1010	Marketing Principles	3
STAT 2000	Introduction to Statistics	3
		<b>50</b>

## MAJOR COURSES:

BUAD 2040	Creativity and Innovation in Business	3
BUAD 3020	Project Management for Administrators	3
MGMT 2000	Communication for Managers	3
MGMT 2010	Diversity Management in the Workplace	3
MGMT 3000	The Supervisor as a Leader	3
MGMT 3010	Business Operations Management	3
MGMT 4000	Change Management and Sustainability	3
MGMT 4010	Business Strategy and Management	3
		<b>24</b>

## ELECTIVES

**TOTAL CREDITS 120**

## NOTES:

- \*All general education courses with an asterisk and all core, major and elective courses must be passed with at least a "C" grade.
- <sup>1</sup>This course includes the use of simulator.
- Course weeks may vary depending on the program offering, which has a total length of approximately 144 weeks.

# Bachelor's Degree in Business Administration with Major in Project Management

## OBJECTIVE

The Bachelor's Degree in Business Administration with major in Project Management provides students with the skills and competencies necessary to strategically plan the scope, time, costs, resources and quality of a project, taking preventive measures to manage risk. Additionally, students will have the opportunity to lead simulated projects in all their phases: initiation, planning, execution, monitoring, control and closure. Furthermore, it provides students with tools to develop knowledge in business administration, which will help them to face economic, social and political challenges of the workplace. This program is aligned with the Project Management Institute (PMI) standards.

## PROGRAM COMPETENCIES

1. Apply their knowledge and skills to plan, organize, manage and control projects in private and public industries or companies.
2. Develop skills in project management so they can comply with time, cost and scope constraints.
3. Apply principles of risk and quality management when managing a project.
4. Use verbal and written communication skills effectively and efficiently in a professional setting, adapted to the communication style of a project manager.
5. Examine the economic, cultural, social and political environment of a company, in order to develop projects that comply with the strategic objectives of the organization.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

40 Credits in General Education Courses  
50 Credits in Core Courses  
27 Credits in Major Courses  
3 Credits in Elective Courses

**120 Total Credits**

## GENERAL EDUCATION:

BISC 1010	Biological Sciences	3
SOSC 1010	Social Sciences I	3
SOSC 1020	Social Sciences II	3
ENGL 1010*	Basic English I	3
ENGL 1020	Basic English II	3

ENGL 2050	Conversational English	3
SPAN 1010*	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
SPAN 2040	Writing and Composition	3
HUMA 1010	Humanities I	3
HUMA 1020	Humanities II	3
MATH 1010*	Basic Mathematics	3
SEMI 1001*	University Environment Seminar	1
ITTE 1031L	Computer Literacy and Laboratory	3
		<b>40</b>

## CORE COURSES:

ACCO 1000	Introduction to Accounting I	4
ACCO 3520	Managerial Accounting	4
BUAD 1020	Business Information Systems	3
BUAD 2000	Fundamentals of Management	3
BUAD 3000	Human Resources Administration	3
BUAD 3010	Comparative Management	3
BUAD 3050	Ethics in Business	3
BUAD 4000 <sup>1</sup>	Integrative Seminar Business Administration	3
BUMA 1000	Introduction to Business	3
ECON 2000	Microeconomics	3
ECON 3200	Macroeconomics	3
FINA 2100	Finance and Cash Flow	3
MATH 1050	Business Mathematics	3
MATH 2080	Quantitative Methods	3
MKTG 1010	Marketing Principles	3
STAT 2000	Introduction to Statistics	3
		<b>50</b>

## MAJOR COURSES:

MGMT 1020	Operations Management	3
PROM 1000	Project Management Fundamentals	3
PROM 1050	Project Communications And Stakeholder Management	3
PROM 2000	Quality Management	3
PROM 2050	Cost And Time Management	3
PROM 3000	Project Risk Management	3
PROM 3050	Contracts and Procurement Management	3
PROM 4000	Technology for Project Management	3
PROM 4010	Project Management Seminar (Capstone)	3
		<b>27</b>

## ELECTIVE

**TOTAL CREDITS 120**

## NOTES:

- \*All general education courses with an asterisk and all core, major and elective courses must be passed with at least a "C" grade.
- <sup>1</sup>This course includes the use of simulator.
- Course weeks may vary depending on the program offering, which has a total length of approximately 144 weeks.

## Bachelor's Degree in Business Administration with Major in Social Media Marketing

### OBJECTIVE

The Bachelor's Degree in Business Administration with major in Social Media Marketing prepares students with the knowledge and skills needed to develop social media marketing strategies using digital media, online communities, content creation, and network analytics. It promotes the development of strategies to position a brand on social media, promote ideas, products, or services, and build the image of companies, organizations, or individuals. By developing these skills, students will be prepared to take on strategic positions related to social media marketing at different organizational levels.

### PROGRAM COMPETENCIES

1. Analyze and interpret information gathered through marketing research and analytical reports to understand the behavior of digital consumers and thus develop effective social media marketing campaigns.
2. Design strategic marketing plans aligned with a company's organizational mission, objectives, and goals with the purpose of developing a positive image and an effective brand positioning.
3. Apply professional skills in a critical and creative manner in order to develop content creation strategies that contribute to the achievement of the company's digital marketing plan objectives.
4. Use effective communication skills that are appropriate in the professional context of marketing, and adapted to the communication style of different channels on social media.
5. Evaluate the legal framework applicable to digital media and integrate ethical principles in social media marketing activities.
6. Examine the economic, cultural, social, and political environment of companies in order to develop social media marketing programs that add value to organizations.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online delivery method.
- Students should only enroll in courses and

programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

40 Credits in General Education  
50 Credits in Core Courses  
27 Credits in Major Courses  
3 Credits in Elective Courses

### 120 Total Credits

### GENERAL EDUCATION:

BISC 1010	Biological Sciences	3
ENGL 1010*	Basic English I	3
ENGL 1020	Basic English II	3
ENGL 2050	Conversational English	3
HUMA 1010	Humanities I	3
HUMA 1020	Humanities II	3
ITTE 1031L	Computer Literacy and Laboratory	3
MATH 1010*	Basic Mathematics	3
SEMI 1001*	University Environment Seminar	1
SOSC 1010	Social Sciences I	3
SOSC 1020	Social Sciences II	3
SPAN 1010*	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
SPAN 2040	Writing and Composition	3
		<b>40</b>

### CORE COURSES:

ACCO 1000	Introduction to Accounting I	4
ACCO 3520	Managerial Accounting	4
BUAD 1020	Business Information Systems	3
BUAD 2000	Fundamentals of Management	3
BUAD 3000	Human Resources Administration	3
BUAD 3010	Comparative Management	3
BUAD 3050	Ethic in Business	3
BUAD 4000 <sup>1</sup>	Integrative Seminar Business Administration	3
BUMA 1000	Introduction to Business	3
ECON 2000	Microeconomics	3
ECON 3200	Macroeconomics	3
FINA 2100	Finance and Cash Flow	3
MATH 1050	Business Mathematics	3
MATH 2080	Quantitative Methods	3
MKTG 1010	Marketing Principles	3
STAT 2000	Introduction to Statistics	3
		<b>50</b>

**MAJOR COURSES:**

MKTG 1020	Integrated Marketing Communications	3
MKTG 2010	Consumer Behavior	3
MKTG 2030	Content Marketing	3
MKTG 3000	Marketing Research	3
SOME 1000	Introduction to Social Media	3
SOME 2000	Social Media Marketing Strategies	3
SOME 2010	Public Relations in Social Media	3
SOME 3000	Web and Social Media Analytics	3
SOME 4000	Social Media Marketing Campaign (Capstone)	3
		<b>27</b>
	<b>ELECTIVE</b>	<b>3</b>
	<b>TOTAL CREDITS</b>	<b>120</b>

**NOTES:**

- \*All general education with an asterisk and all core and major courses must be passed with at least a "C" grade.
- <sup>1</sup>This course includes the use of simulator.
- Course weeks may vary depending on the program offering, which has a total length of approximately 144 weeks.

## Associate's Degree in Business Administration

### OBJECTIVE

The Associate's Degree in Business Administration program prepares students with the basic knowledge and skills necessary for organization management. Graduates of this program will recognize business theories for their application in the contemporary business world..

### PROGRAM COMPETENCIES

1. Identify theories, principles, and practices related to business administration for efficient business management integrating technology.
2. Recognize the economic, social, and political environment around local and international companies for the promotion of projects that add value to the organization.
3. Develop accurate oral and written reports related to their work area for the proper functioning of the business.
4. Employ technology and other means to search for information during the business analysis and decision-making process.
5. Critically analyze business situations that enable creative and innovative solutions to business challenges.
6. Assess the importance of ethics and respect for diversity for decision-making in their area of work.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via online delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS:

22 Credits in General Education

47 Credits in Major Courses

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**69 Total Credits**

### GENERAL EDUCATION:

ENGL 1010*	Basic English I	3
ENGL 1020	Basic English II	3
SOSC 1010	Social Sciences I	3
ITTE 1031L	Computer Literacy and Laboratory	3
MATH 1010*	Basic Mathematics	3
SEMI 1010*	Transition to University Life and Professional Training Seminar	1
SPAN 1010*	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
		<b>22</b>

### MAJOR COURSES:

ACCO 1000	Introduction to Accounting I	4
ACCO 3520	Managerial Accounting	4
BUAD 1020	Business Information Systems	3
BUAD 2000	Fundamentals of Management	3
BUAD 2010	Policies and Business Strategies	3
BUAD 2040	Creativity and Innovation in Business	3
BUAD 2070	Entrepreneurship	3
BUAD 3000	Human Resources Administration	3
BUAD 3010	Compared Management	3
BUAD 3050	Ethics in Business	3
BUMA 1000	Introduction to Business	3
ECON 2000	Micro Economics	3
FINA 2100	Finance and Cash Flow	3
MATH 1050	Business Mathematics	3
MKTG 1010	Marketing Principles	3
		<b>47</b>
<b>TOTAL CREDITS</b>		<b>69</b>

### NOTES:

- \*All general education with an asterisk and all core and major courses must be passed with at least a "C" grade.
- Program offered only online.
- Course weeks may vary depending on the program offering, which has a total length of approximately 80 weeks.

## Associate's Degree in Accounting

### OBJECTIVE

The Associate's Degree in Accounting trains students in the knowledge and skills needed to perform the tasks related to the profession of accounting, including the analysis of financial statements and bookkeeping. This program provides students with learning experiences through the use of technology to ensure their success in modern businesses.

### PROGRAM COMPETENCIES

1. Apply complete accounting cycle knowledge in individual and corporate businesses, including the preparation of financial statements for decision making and problem solving.
2. Communicate effectively in verbal and written Spanish and English, developing creativity and sensibility for assertive communication.
3. Critically analyze economic problems, such as tax environment implications, observing the code of professional ethics while considering sociological and political changes of the contemporary world.
4. Efficiently apply technology in the performance of their functions within the areas of public or private accounting.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via online delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

22 Credits in General Education

42 Credits in Major Courses

**64 Total Credits**

### GENERAL EDUCATION:

ENGL 1010*	Basic English I	3
ENGL 1020	Basic English II	3
HUMA 1010	Humanities I	
OR		
SOSC 1010	Social Sciences I	3
ITTE 1031L	Computer Literacy and Laboratory	3
MATH 1010*	Basic Mathematics	3
SEMI 1001*	University Environment Seminar	1
SPAN 1010*	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
		<b>22</b>

### MAJOR COURSES:

ACCO 1000	Introduction to Accounting I	4
ACCO 1050	Introduction to Accounting II	4
ACCO 2100	Intermediate Accounting I	3
ACCO 2200**	Puerto Rican Taxes	3
ACCO 2270L	Computerized Accounting and Laboratory	4
ACCO 3320	Federal Taxes	3
BUAD 2000	Fundamentals of Management	3
BUAD 3050	Ethics in Business	3
BUMA 1000	Introduction to Business	3
ECON 2000	Micro Economics	3
FINA 2100	Finance and Cash Flow	3
MATH 1050	Business Mathematics	3
STAT 2000	Introduction to Statistics	3
		<b>42</b>
<b>TOTAL CREDITS</b>		<b>64</b>

### NOTES:

- \*General education courses with an asterisk and all major and elective courses must be passed with at least a "C" grade.
- \*\*Students residing outside PR may decide to take the ACCO 2200 course or substitute it for a free, directed or recommended elective.
- Program offered only online.
- Electives depend on the academic offering available in each term. Students should consult with their academic advisor.
- Course weeks may vary depending on the program offering, which has a total length of approximately 80 weeks.



# Associate's Degree in Business Administration in Entrepreneurship

## OBJECTIVE

The Associate's Degree in Business Administration in Entrepreneurship trains students in the skills essential to planning, establishing, and managing a business operation. Students in this program will develop a business plan from the formulation of an idea to its execution, evaluation, and optimization. The program aims to prepare professionals with the managerial, ethical, and legal knowledge necessary to develop and manage socially responsible businesses.

## PROGRAM COMPETENCIES

1. Apply the fundamental principles of business administration in business development and operation on the bases of legal, tax, and social responsibility.
2. Employ basic knowledge in the management of human capital such as recruitment, performance selection, and evaluation to achieve established goals in the processes of small business planning.
3. Develop critical and creative business plans that respond to the challenges and changes of the target market.
4. Effectively communicate their ideas in verbal and written Spanish and English, with assertiveness in their professional performance.
5. Ethically use informative and digital tools in basic accounting, marketing, and financing processes for problem-solving and decision-making within the business world.
6. Demonstrate leadership skills in their professional performance, conscious of the economic, sociological, and political reality of their community, with a high sense of legal, ethical, and moral responsibility including respect for diversity.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

22 Credits in General Education

43 Credits in Major Courses

**65 Total Credits**

## GENERAL EDUCATION:

ENGL 1010*	Basic English I	3
ENGL 1020	Basic English II	3
HUMA 1010	Humanities I	
OR		
SOSC 1010	Social Sciences I	3
ITTE 1031L	Computer Literacy and Laboratory	3
MATH 1010*	Basic Mathematics	3
SEMI 1001*	University Environment Seminar	1
SPAN 1010*	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
		<b>22</b>

## MAJOR COURSES:

ACCO 1000	Introduction to Accounting I	4
ACCO 2000	Fundamentals of Accounting and Financial Management for The Entrepreneur	3
BUAD 2000	Fundamentals of Management	3
BUAD 3000	Human Resources Administration	3
BUAD 3050	Ethics in Business	3
BUMA 1000	Introduction to Business	3
BUMA 1050	Introduction to Entrepreneurship	3
BUMA 2010	Legal, Tax and Social Responsibility in Business	3
BUMA 2050	Small Business Planning	3
BUMA 2250	Small Business Planning II	3
ECON 2000	Micro Economics	3
MATH 1050	Business Mathematics	3
MKTG 1010	Marketing Principles	3
MKTG 2050	Introduction to Digital Marketing	3
		<b>43</b>

## TOTAL CREDITS

**65**

## NOTES:

- \*All general education courses with an asterisk and all major courses must be passed with at least a "C" grade.
- This program will be offered through the on ground and online delivery mode.
- Course weeks may vary depending on the program offering, which has a total length of approximately 80 weeks.



***UNDERGRADUATE  
BUSINESS ADMINISTRATION  
COURSE DESCRIPTIONS***

**ACCO 1000: Introduction to Accounting I: 4 credits**

In this course, students will analyze the fundamentals of accounting and their impact on business operations. They will categorize account types for registering transactions in the corresponding ledgers. Also, they will create the necessary financial reports when completing the accounting cycle of a business.

*(Pre-requisite: MATH 1010)*

**ACCO 1050: Introduction to Accounting II: 4 credits**

In this course, students will analyze accounting operations and the creation of financial statements for a merchandising business. They will measure the depreciation expense of assets acquired by businesses. They will differentiate inventory types, how they function, and valuation methods. They will also evaluate the rules for payroll calculation, receivables, and current and long-term business liabilities.

*(Pre-requisites: ACCO 1000, MATH 1010)*

**ACCO 2000: Fundamentals of Accounting and Financial Management for the Entrepreneur: 3 credits**

They will evaluate the responsibilities of a businessperson in the fiscal development, operation, and compliance of a business. Additionally, they will analyze the financial information of a business with the objective of encouraging informed decisions and sound financial management. They will also identify best practices used for the promotion of a balance between a business' finances and its owners' personal finances. *(Pre-requisite: ACCO 1000)*

**ACCO 2100: Intermediate Accounting I: 3 credits**

In this course, students will evaluate the generally accepted accounting principles in a company. They will analyze the objectives of presenting a company's financial information. They will also prepare financial statements and explain their importance in the decision making process of investors and other users.

*(Pre-requisites: ACCO 1050)*

**ACCO 2200: Puerto Rican Taxes: 3 credits**

In this course, students will analyze the fundamentals and history of the income tax system in Puerto Rico. They will describe the

Internal Revenue Code to determine the tax liability of individuals and corporations. They will also prepare individual and corporate tax returns. *(Pre-requisites: ACCO 1050)*

**ACCO 2270L: Computerized Accounting and Lab: 4 credits**

In this course, students will analyze accounting cycles using specialized accounting software. They will create economic transactions in said software. Also, students will generate the necessary accounting documents and reports, either for their own business or a company.

*(Pre-requisites: ACCO 1000, ITTE 1031L)*

**ACCO 3150: Intermediate Accounting II: 3 credits**

In this course, students will analyze the composition of a company's assets. They will assess, classify, and present inventory items and determine an adequate management and control system. They will contrast the fundamental aspects of tax accounting for a corporation. They will also prepare the stockholders' equity of a corporation. *(Pre-requisites: ACCO 2100)*

**ACCO 3320: Federal Taxes: 3 credits**

In this course, students will analyze the Federal Internal Revenue Code. They will use the Code in light of organization's needs and different types of taxpayers. They will differentiate the forms used in the Federal Income Tax process. *(Pre-requisites: ACCO 1050)*

**ACCO 3420: Introduction to Cost Accounting: 3 credits**

In this course, students will analyze the basic concepts of cost in the production process of manufacturing and nonmanufacturing companies. They will discuss the conceptual framework of a company's cost systems. Additionally, they will analyze and explain the role of cost accounting in a company's decision-making process. *(Pre-requisites: ACCO 2100, 2200)*

**ACCO 3520: Managerial Accounting: 4 credits**

In this course, students will analyze and explain the accounting information to plan, direct and control the operations of a business. They will evaluate the types of costs in companies and perform cost, volume, and profit analyses as a

tool to facilitate decision-making. They will prepare a master budget and explain its characteristics and advantages to facilitate the planning process. In addition, they will evaluate and apply the appropriate techniques for decision-making, both short- and long-term, as well as perform an analysis of financial statements. *(Pre-requisite: ACCO 1000)*

**ACCO 3550: Accounting Information Systems: 3 credits**

In this course students will examine the components of the accounting information systems that businesses use for the recording, processing, and transformation of data. They will evaluate internal control systems that promote information security and the integrity of accounting data. Students will analyze the processes of basic commercial activities for the identification of threats and the implementation of necessary controls to mitigate them. *(Pre-requisite: ACCO 2100)*

**ACCO 4000: Accounting for Governmental and Nonprofit Entities: 3 credits**

In this course, students will analyze the basic concepts, applications, and practices of fund accounting and financial reporting for governmental and nonprofit entities, as well as the pronouncements of the Governmental Accounting Standards Board (GASB) and the Financial Accounting Standards Board (FASB). They will explain the role of budgeting in the government sector. Additionally, they will develop a transaction register for economic events along with their general and special journal entries for governmental entities, according to existing economic facts or contexts. *(Pre-requisite: ACCO 3150)*

**ACCO 4220: Principles of Auditing: 3 credits**

In this course, students will analyze and explain the basic elements and kinds of audits as well as the role of the CPA. They will contrast the various audit reports, their presentation, and the techniques to interpret them. Additionally, they will discuss professional ethics, legal elements of the audit, evidence in audit processes, and internal control mechanisms. *(Pre-requisites: ACCO 3150)*

**ACCO 4400: Advance Accounting: 3 credits**

In this course, students will analyze accounting

principles, practices, transactions, and reports. They will prepare corporate and consolidated business reports. They will evaluate stock, bond, and dividend transactions. Students will analyze the valuation of foreign currency operations of a business and the effect it has on a company when they implement the international accounting standards to their accounting process. They will also contrast the accounting process of partnerships, estates, trusts, and nonprofit organizations. *(Pre-requisite: ACCO 3150)*

**ACCO 4500: Forensic Accounting: 3 credits**

In this course, students will analyze the basic concepts of forensic accounting, criminology, and forensic auditor ethics. They will contrast the different types of fraud, financial crimes, and cybercrimes and the legal framework to counter them. Additionally, they will investigate fraud schemes and methods used to commit fraud and will apply investigation strategies for the collection, assessment, and recovery of embezzled funds. *(Pre-requisites: ACCO, 3150)*

**ACCO 4550: Operational and Systems Auditing: 3 credits**

In this course, students will distinguish the basic components of every organizational operation and the expected goals of a company. They will apply the appropriate auditing procedures for the examination of operational processes to support the efficiency and safety of the business. Additionally, students will evaluate the components of the internal controls needed for auditing electronic information systems for fraud mitigation. Lastly, they will develop processes leading to ethical environments both in public and private industries. *(Pre-requisite: ACCO 4220)*

**BUAD 1020: Business Information Systems: 3 credits**

In this course, students will analyze the fundamentals of information systems, focusing specifically on their business application and their impact on modern organizations. They will examine the principles of business intelligence, e-commerce, information management, decision support tools for managers, and cybersecurity. Additionally, they will evaluate the ethical and social aspects of using information systems, including emerging technologies such as artificial intelligence, and cyber risk management. *(Pre-requisite: ITTE 1031L)*

**BUAD 1050: Multiculturalism: 3 Credits**

In this course, students will understand the complexity and value of a multicultural environment in organizations. They will also explore the impact of differences regarding culture, generations, sexual and gender orientation, and functional diversity, among others, on the management and operational processes of an organization. Furthermore, they will integrate the acquired knowledge in the analysis of different elements of an organization and the tools that enable them to effectively manage its resources, as well as how this impacts the fulfillment of the organization's mission and vision.

**BUAD 2000: Fundamentals of Management: 3 Credits**

In this course, students will critically analyze the main concepts about managerial work and the organizational environment. In addition, they will assess the impact of the different schools of management thought and their exponents on contemporary management. Furthermore, they will integrate the concepts and processes related to planning, organizing, leading, and controlling into the essential role of the manager.

*(Pre-requisite: BUMA 1000)*

**BUAD 2010: Policies and Business Strategies: 3 Credits**

In this course, students will analyze the foundations of strategic planning and the role of internal and external environments in business growth. They will develop strategies for managing their product and business portfolio. Additionally, they will examine the implementation of strategies through evaluation and control processes aimed at the achievement of sustainable competitive advantages for businesses.

*(Pre-requisites: BUMA 1000)*

**BUAD 2030: E-Commerce: 3 Credits**

In this course, students will analyze the basic concepts and models of electronic commerce. Evaluate the process and the technologies needed to develop a Web presence for e-commerce and marketing. Also, discuss on ethical, legal, and privacy protection aspects regarding any electronic commerce.

*(Pre-requisites: ITTE 1031L)*

**BUAD 2040: Creativity and Innovation in Business: 3 credits**

In this course, students will analyze creativity and innovation management in business with the aim of obtaining sustainable competitive advantages. Likewise, they will examine tools and techniques that foster individual and group creativity, as well as management practices related to innovation. In addition, they will apply methods for developing and evaluating ideas for new products or services and the business models for their execution. *(Pre-requisite: BUMA 1000)*

**BUAD 2050: Business Law: 3 credits**

In this course, students will analyze the fundamental concepts and nature of business law. Evaluate legal situations of business law and its relation to the economic activities of our society. Explain the importance of information and communication technologies (ICT) in trade negotiations. Also, appreciate the importance of ethics in the practice of the legal services, both globally and nationally.

**BUAD 2070: Entrepreneurship: 3 Credits**

In this course, students will analyze the historical aspects of entrepreneurship, the characteristics of entrepreneurs, and the role of entrepreneurs in local and international companies. Likewise, they will evaluate challenges and opportunities in the creation of new companies and relevant information for making business decisions. In addition, students will devise a business idea based on the legal and organizational structure selected. *(Pre-requisite: BUMA 1000)*

**BUAD 3000: Human Resources Administration: 3 credits**

In this course, students will evaluate the principles, rules, and practices of administration that apply to human resource management. They will strategically plan activities that pertain to human resources departments, such as personnel recruiting, selection, and assessment processes, as well as personnel formation, training, development, promotion, transferal, discipline, and remuneration processes, in accordance with labor legislation and collective agreements. They will also analyze the importance of developing human capital in organizations in view of the trends of the 21st century.

**BUAD 3010: Comparative Management: 3 Credits**

In this course, students will analyze the impact globalization has had on countries, industries, companies, and communities in general. They will determine the competencies that management must possess for an international operation, using the components of international trade as a reference framework. They will evaluate the role of organizational culture and cross-cultural communication in international management. Students will also explain the various controls that are implemented in the management of international operations in the areas of administration, marketing, and human resources, as well as the principles of social and ethical responsibility that should prevail.

*(Pre-requisites: BUAD 2000)*

**BUAD 3020: Project Management for Administrators: 3 Credits**

In this course, students will evaluate the processes for initiating, planning, executing, monitoring, and closing a project. They will also integrate technological tools and various procedures for managing the balance of a project's scope, cost, and time. Additionally, they will determine the necessary resources for risk and quality management, as well as communication and change management processes.

*(Pre-requisites: BUAD 2000, BUAD 3190)*

**BUAD 3050: Ethics in Business: 3 credits**

In this course, students will analyze the origin and development of ethics as a philosophical principle, as well as its relationship and application in the business and professional environment. They will also evaluate the principles that promote a greater social responsibility inside and outside of an organization as a solution to current ethical problems. In addition, they will distinguish between the applicable principles and codes of ethics according to the type of organization or business. Furthermore, students will outline a code of ethics that meets the needs of a profession or organization.

**BUAD 3190: Organizational Leadership: 3 credits**

In this course, students will analyze the evolution and theoretical foundations of leadership in contemporary organizations. They will determine

how the study of personality and cognitive models affects the development of effective leadership. Furthermore, they will assess the characteristics that make up an integral leader and their role in relationship building, as well as the ethical aspects of leading strategic change in the company

**BUAD 3200: Change Management and Organizational Development: 3 credits**

In this course, students will analyze change management in organizations and the change agents in businesses. They will examine the driving forces of organizational change, the process of implementing changes, and the behavioral change theory in individuals and organizations. Finally, students will develop strategies for managing individual, group, and organizational change.

*(Pre-requisites: BUAD 2000, BUAD 3190)*

**BUAD 4000: Integrative Seminar Business Administration: 3 Credits**

In this course, students will analyze the principles of strategic management and the management skills needed to manage a company. They will evaluate ethics and social responsibility, as well as the planning, human resource management, financial, and marketing aspects for decision-making within a company. Finally, they will formulate business strategies within the strategic and operational execution planning of a company. *This course includes the use of simulator.*

*(Pre-requisites: ACCO 1000, BUAD 2000, BUAD 3000, BUAD 3010, BUAD 3050, BUMA 1000, ECON 2000, ECON 3200, FINA 2100, MATH 1050, MATH 2080, MKTG 1010, STAT 2000 OR ACCO 1000, BUAD 2000, BUAD 3000, BUAD 3050, BUMA 1000, ECON 2000, ECON 3200, FINA 2100, MATH 1050, MATH 2080, MKTG 1010, STAT 2000)*

**BUIN 1010: Principles of Information Systems: 3 Credits**

In this course, students will examine the fundamentals and various information systems. Evaluate the various components that make up an information system. Also, discuss the importance of information systems in business processes in order to support problem solving and decision making.

*(Pre-requisites: ITTE 1031L)*

**BUIN 1015: Introduction to Business Intelligence: 3 Credits**

In this course, students will examine the fundamentals of business intelligence and the need to use its components within data processing. They will evaluate the steps of data integration workflow and apply them according to the necessary required data. Additionally, they will explain how to manage a business intelligence projects appropriately.

**BUIN 1020: Introduction to Data Base: 3 Credits**

In this course, students will analyze databases, management systems, structures to data modeling and the design process. They will use the elements of the Structured Query Language (SQL) in the structure and design of databases. They will also develop a database under a standardized model.

**BUIN 2000: Decision Support Systems: 3 Credits**

In this course, students will analyze the fundamentals and key aspects of the managerial decision-making process. They will examine the structure and functioning of decision support systems based on various analytical criteria. In addition, they will propose a decision support system along with its corresponding implementation plan, according to a given scenario. *(Pre-requisites: BUIN 1015)*

**BUIN 2010: Business Analytics: 3 Credits**

In this course, students will analyze the fundamentals of business analytics. They will also apply descriptive and predictive analysis techniques to support business decision-making. Additionally, they will design graphical visualizations to represent business analytics results. *(Pre-requisites: BUIN 1015)*

**BUIN 3000: MS Excel for Business Intelligence: 3 Credits**

In this course, students will use MS Excel as a tool for data analysis. They will focus on the creation of Excel tables, graphs, and dynamic tables and graphs for transforming data, whether it be text files or is located in databases into valuable information. Additionally, they will apply basic concepts for logical, numerical, and date and time formulas and functions to transform data and obtain results.

*(Pre-requisites: ITTE 1031L; BUIN 2010)*

**BUIN 3010: Web Analytics: 3 Credits**

In this course, students will apply web analytics to measure and maximize the value of their business. They will use tools to measure traffic and evaluate the behavior of users who visit a website. They will analyze how to integrate segmentation using dimensions to measure how certain users utilize a webpage. They will establish goals to measure the effectiveness of changes in website content and navigation. Google Analytics will be used as an analytic tool throughout the course.

**BUIN 3015: Database Management: 3 Credits**

In this course, students will apply advanced techniques for the management, maintenance, and optimization of databases. In addition, they will examine the management of large volumes of data and the implementation of data security and backup policies. Likewise, they will demonstrate knowledge and skills for effective database management in business environments. *(Pre-requisites: BUIN 1020)*

**BUIN 4000: Data Warehousing, Data Mining and Data Analysis: 3 Credits**

In this course, students will analyze the fundamental concepts of a data warehouse. They will evaluate the preparation of data, information delivery, visualization, and result analysis. They will use data mining to help individuals and organizations to make better decisions. They will describe the tools for analyzing gathered data and how they help business intelligence. *(Pre-requisites: BUIN 1020, BUIN 2000)*

**BUIN 4010: Applications for Business Analysis: 3 Credits**

In this course, students will analyze the essential elements of applications and their uses in order to perform a business analysis using the Power BI tool, which will create interactive visualizations to be used in business intelligence. They will develop reports and dashboards, without having to depend on information technology or database administration personnel. Additionally, they will use the Power Pivot, Get & Transform, Power View, and Power Map tools. *(Pre-requisites: BUIN 3000)*



**BUIN 4015: Business Intelligence Solutions for Companies: 3 Credits**

In this course, students will identify the needs of a company for designing effective business intelligence (BI) solutions. Likewise, they will apply the best BI practices and strategies in practical case studies. They will also develop reports and presentations with recommendations tailored to the needs of a company. (*Pre-requisites: BUIN 2010*)

**BUMA 1000: Introduction to Business: 3 credits**

In this course, students will distinguish fundamental business concepts. They will analyze theoretical foundations related to key areas for operating a business, such as management, human resources management, marketing, finances, and global business. Additionally, students will develop the knowledge and skills to understand the world of business and the essential skills necessary to ensure successful business development in today's competitive market.

**BUMA 1050: Introduction to Entrepreneurship: 3 credits**

In this course, students will analyze the general aspects, techniques and basic skills needed to develop a company. They will justify the planning and development of a business plan. Additionally, they will explain and develop an ethical and social conscience that will allow them to have good performance in the business world.

**BUMA 2010: Legal, Tax and Social Responsibility in Business 3 credits**

In this course, students will apply corporate social responsibility concepts and their ethical foundations. They will also recognize the stakeholders and actors involved in a corporation. Likewise, they will value the importance of the common good as the basis for a fair and inclusive society. Furthermore, students will evaluate processes related to the implementation of a socially responsible system. (*Pre-requisite: BUMA 1050*)

**BUMA 2050: Small Business Planning: 3 credits**

In this course, students will analyze the types of legal structures, the market, and strategies for the operational viability of a business. They will

also evaluate the structure of the internal and external environment of a business for decision making in the market study. Furthermore, students will apply planning concepts for a small business, including idea proposal, business model, market research phases, and starting the business plan. (*Pre-requisites: BUMA 1050*)

**BUMA 2250: Small Business Planning II: 3 credits**

In this course, students will create a marketing plan and other supporting sections for their business proposal. They will prepare a financial plan for the search and acquisition of the necessary financing for the operation. Students will develop operational strategies related to customer service, risk prevention, and vulnerabilities in the business. At the end of the course, they will complete their business plan by incorporating supporting documents, an executive summary, and a business pitch. (*Pre-requisite: BUMA 2050*)

**ECON 2000: Micro economics: 3 credits**

In this course, students will analyze the basic elements of microeconomics, taking into consideration economic problems and policies. They will justify the theory of consumer and producer behavior, emphasizing the different types of markets and agents. Additionally, they will interpret the supply and demand models with their respective changes, the concept of the elasticity model, and the State's intervention in the markets. Likewise, they will explain the different market structures, evaluating efficiency, equity, and their respective failures.

**ECON 3200: Macroeconomics: 3 credits**

In this course, students will analyze the basic elements of macroeconomics, taking into account the macroeconomic variables related to economic growth and development. They will justify the implications of how fiscal and monetary policy work for the stabilization of the economy. In addition, students will interpret the financial and monetary systems in the capital investment market and their relationship with economic growth. They also will explain the effects of economic policies in the globalized economy. (*Pre-requisites: ECON 2000*)



**FINA 1020: Financial Statements Analysis: 3 credits**

In this course, students will analyze and interpret financial statements to evaluate the profitability of a company, and to make credit, loan and investment decisions, as well as any other decisions based on financial data. They will understand cash flow statements and the methods used to present them. Students will assess the risk associated with the most common financial transactions of the company. In addition, they will analyze the accounts receivable and long-term assets of a company, in order to make asset management decisions. (*Pre-requisite: ACCO 1000*)

**FINA 1050: Financial Modeling: 3 credits**

In this course, students will develop financial models for statistical and investment purposes, such as shares and bonds appraisal, capital structure modeling, and capital budget modeling. They will apply the theories and concepts learned in the introductory finance and accounting courses in a practical way using spreadsheet. In addition, they will use the Microsoft Excel program to solve financial problems, as well as to manage and analyze information to take financial decisions. (*Pre-requisites: EXCL 1000, FINA 1020*)

**FINA 2100: Finance and Cash Flow: 3 credits**

In this course, students will evaluate the financial management landscape from the internal perspective of the companies and the activities that take place in the financial markets. They will analyze the results of the different financial statements and tax obligations. They will also measure the impact of acquiring bonds and shares in terms of the company's expected risk and return. (*Pre-requisites: MATH 1010*)

**FINA 2400: Financial Management: 3 credits**

In this course, students will analyze the impact of financial decisions that at short and long-term affect the achievement of the business goals and its performance. They will ponder risk, return, investment, debt and capital cost decisions. Students will evaluate cash and capital budgets to comply with the finance planning and control process. They will evaluate the capital structure and debt level of the company in order to recommended informed financial decisions.

Students will also develop net working capital analysis competencies, as well as skills to make financial decisions regarding current assets and debts. They will analyze corporate decisions on leases, mergers, acquisitions, reorganization, liquidation, and bankruptcy, in addition to the impact of international investment decisions.

**FINA 2700: Money and Banking: 3 credits**

In this course, students will study the role of money and of the financial markets in the overall economy. They will analyze the leading role the banking industry and other financial institutions play in the financial system of a country. In addition, they will examine the relevance of the Federal Reserve System as a mechanism to control the monetary policy of a country with the objective of achieving economic stability. Lastly, students will evaluate the theoretical foundations, instruments, and strategies used to interpret the application of monetary policies at the national and international levels.

**FINA 3000: Financial Markets: 3 credits**

In this course, students will comprehend the function of financial markets and the role of economic and monetary theory in the economy. They will examine the structure and operations of financial markets. Finally, they will analyze the role of commercial banks and other financial institutions on the investment decision making process of organizations.

**FINA 3200: Personal Finance: 3 credits**

In this course, students will analyze the knowledge and abilities essential to make informed decisions about financial issues. They will also examine their current financial situation to set basic financial goals as part of their personal financial plan. Likewise, they will apply the necessary tools to keep track of their finances to efficiently maintain their budget. Finally, they will evaluate different opportunities and the importance of professional careers in the area of personal finance.

**FINA 4000: Fundamentals of Investments: 3 credits**

In this course, students will develop the skills to analyze investments and manage investment portfolios. In addition, they will apply basic investment concepts and principles, such as investment policies, types of securities, and factors that influence price changes. They will

examine financial assets purchase and sale processes, as well as risk measures and how to calculate the return on investment. Finally, students will develop a general vision of the stock market and its behavior, including mutual funds, government securities, and other financial options. *(Pre-requisites: FINA 2400, FINA 3000)*

**FINA 4010: Risk Management and Insurance: 3 credits**

In this course, students will analyze the fundamental principles of risk management and the different insurance types used to mitigate risks. They will evaluate how insurance companies operate, what determines their solvency, and the regulations governing them. They will also examine the process of selecting insurances and how they are used to transfer the risks that could impact the company finances. Finally, students will apply the appropriate processes, techniques, and tools to develop risk monitoring and control strategies and plans in companies. *(Pre-requisites: FINA 2400, FINA 3000)*

**HEMA 2000: Introduction to Health Services Management: 3 credits**

In this course, students will analyze the fundamentals of health services administration, the characteristics of healthcare systems, and the nature of their components, with a broad perspective on systems in the United States and Puerto Rico. They will also evaluate the different providers within the healthcare field, including hospitals, outpatient care centers, and hospices, among others. In addition, they will examine health insurance models and healthcare payment systems.

**HEMA 2010: Planning and Policies in Health Service Management: 3 credits**

In this course, students will explain the nature of managing health service organizations and the importance of a clear vision in their planning and management processes. They will also analyze the characteristics and responsibilities of management at different levels within the organization. Furthermore, they will discuss decision-making processes related to both operations and personnel management. Additionally, students will develop a strategic plan for a health organization. *(Pre-requisite: HEMA 2000)*

**HEMA 2020: Operations Management in Health Services Organizations: 3 credits**

In this course, students will apply fundamental principles of operations management in the context of organizations providing health services. They will also discuss concepts, models, and limitations within the industry. Students will analyze operational problems to generate solutions that ensure service efficiency and quality. Furthermore, they will develop skills in decision-making and problem-solving within healthcare organizations.

**HEMA 3000: Finance in Health Services Organizations: 3 credits**

In this course, students will analyze the application of basic financial concepts in the management of healthcare service organizations. They will discuss the processes and financial implications for different types of health service organizations, as well as the sources through which these organizations generate revenue. Furthermore, students will evaluate the financial status of health service organizations using various tools. Likewise, they will justify strategic decision-making within these organizations. *(Pre-requisites: ACCO 3520, HEMA 2000, FINA 2100)*

**HEMA 3010: Information Systems in Health Services Organizations: 3 credits**

In this course, students will discuss the importance of using health management information systems (HMIS) in the health services sector. They will also apply different evaluation criteria to select the most appropriate HMIS technological infrastructure for the operational needs of an organization. Furthermore, they will analyze strategic planning concepts related to technological projects in the health services sector. *(Pre-requisite: HEMA 2000)*

**HEMA 3020: Legal and Ethical Issues in Health Services Management: 3 credits**

In this course, students will analyze the principles and foundations of law, along with the constitutional basis of the legal system. They will evaluate policy and legal aspects related to the provision of health services. Additionally, they will interpret state and federal legislation concerning privacy rights, labor rights, and health services.

**HEMA 4000: Risk Management and Compliance in Healthcare: 3 credits**

In this course, students will identify the inherent risks of managing organizations that provide health services. They will also examine the practices and procedures necessary for compliance with applicable regulations and standards in this industry. Furthermore, they will analyze the necessary steps to create corrective action plans to mitigate risks.

**HEMA 4010: Leadership in Health Services Organizations: 3 credits**

In this course, students will apply leadership principles and theories to team management within health service organizations. They will also develop skills in change management, decision-making, and conflict resolution in the context of these organizations. Furthermore, they will demonstrate competencies in communication, motivation, change management, and effective leadership to foster a positive organizational culture.

**HURE 1000: Talent Acquisition: 3 credits**

In this course, students will value the tools and techniques aimed at the acquisition and retention of talented employees in an organization. They will evaluate the planning processes for identifying human talent and its relation to the strategic objectives of a business and its employer branding. They will determine the effectiveness of the talent selection process through the analysis of metrics. *(Pre-requisite: BUAD 3000)*

**HURE 1015: Development of Human Talent: 3 credits**

In this course, students will examine the importance of human talent development to strengthen an organization's competitiveness. They will also analyze the skills required for the design, implementation, and evaluation of training for an organization's human talent. In addition, they will create a talent development plan aimed at fostering a high-performance workforce and achieving organizational objectives. *(Pre-requisite: BUAD 3000)*

**HURE 1070: International Labor Law: 3 Credits**

Upon completion of this course, students will analyze the principles and evolution of

international labor relations and collective bargaining processes. Evaluate the economic and social impact of the development of labor laws in international organizations. The students will also argue about the role of unions in promoting and developing labor laws.

*(Pre-requisite: BUAD 3000)*

**HURE 1090: Puerto Rico Labor Law: 3 credits**

In this course, students will examine the social and historical conditions that propelled the approval and implementation of labor laws in Puerto Rico. Analyze local labor laws and their relevance in human resource management in business. Furthermore, evaluate how the administrative and judicial interpretations of labor laws affect their application in the workplace.

*(Pre-requisites: BUAD 3000)*

**HURE 2000: Total Compensation: 3 credits**

In this course, students will identify the scope of compensation systems design to achieve sustainable competitive advantage. They will analyze external competitiveness and internal alignment to design salary scales or structures as part of the value proposition for human talent. Likewise, they will evaluate the importance of total compensation plan administration.

*(Pre-requisite: BUAD 3000)*

**HURE 2010: Leadership in Human Resources: 3 credits**

In this course, students will evaluate the main competencies and functions of supervisors when faced with the challenges of managing human resources, as well as the role of a leader in achieving business goals. They will also integrate the best practices of supervision and leadership when performing human resources talent management duties in compliance with legal and regulatory aspects as well as inclusion policies. Additionally, they will analyze influential and impactful leadership strategies in the field of human resources, in order to adapt to new trends and supervisory challenges from a global perspective, as well as to implement effective communication and motivation models.

*(Pre-requisite: BUAD 3000)*

**HURE 3000: Human Resources Information Systems: 3 credits**

In this course, students will analyze the evolution of technology in talent management, as well as the organizational and strategic aspects of integrating technological tools as part of the business value chain. They will evaluate technological advancements in human talent recruitment and selection processes, as well as in their training and professional development within organizations. In addition, students will distinguish the metrics for the evaluation of operations and work team performance.

*(Pre-requisite: BUAD 3000)*

**HURE 3010: Employment and Labor Law: 3 credits**

In this course, students will examine the historical development of the labor movement in the United States and the labor laws applicable to labor-management relations regarding contractual aspects and wage justice. Students will evaluate the types of discrimination, as well as the rights and duties of employees and employers related to privacy in employment, protection in the face of retirement, and different types of harassment in the workplace. In addition, they will assess the federal laws that guarantee the right of all employees to access the workplace, reasonable accommodation, health, occupational safety, and employment protection.

*(Pre-requisite: BUAD 3000)*

**HURE 4000: Organizational Development and Effectiveness: 3 credits**

In this course, students will learn the principles of organizational change management. They will analyze the basic principles applicable to any complex process of change and the practical application regarding collaborations with individuals, teams, and organizations in change management. Finally, students will evaluate change management models and the communication strategies for good change management. *(Pre-requisite: HURE 2010)*

**HURE 4010: Strategic Management of Human Resources (Capstone): 3 credits**

In this course, students will design strategies for human resource management as well as their execution. They will evaluate models and strategies directed towards increasing efficacy in the department of human talent and increasing

the value of the people in their organizations. Finally, students will validate the alignment of the human resources strategies with the organizational strategy.

*(Pre-requisite: HURE 4000)*

**INBU 1000: Introduction to International Business: 3 credits**

In this course, students will identify the nature and environment of international business. They will describe the basis for international business as well as its main concepts and theories. They will discuss the main international business agreements and the countries that participate in them. Students will justify the environment of the international financial system and its implication for commerce between nations.

*(Pre-requisites: BUMA 1000, BUAD 2000)*

**INBU 1010: International Finance: 3 credits**

In this course, students will analyze the fundamental aspects of international finance. They will distinguish between factors that determine the value of currencies and how the main stock exchanges of the world function, as well as for concepts related to capital exchanges between countries and organizations that facilitate these processes. They will justify the different management decisions that are made concerning international finance, such as setting interest rates, currency exchange rate, supply and demand, and the influence of governments. Additionally, they will acquire a perspective on international finance, from a macroscopic and general outlook of the global financial environment, to the specific financial management decisions made by organizations.

*(Pre-requisites: BUMA 1000, FINA 2100, MATH 1050; MATH 2080)*

**INBU 1020: International Marketing: 3 credits**

In this course, students will use a managerial approach to analyze the marketing programs used by organizations with a global outreach. They will evaluate business opportunities on the international market and select the most effective marketing strategies to enter said markets. The students will also discuss the different strategies that comprise the marketing mix as well as how they apply to international scenarios.

*(Pre-requisites: BUMA 1000, BUAD 2000, MKTG 1010)*

**INBU 1030: International and Multicultural Management: 3 credits**

In this course, students will analyze the importance that applied strategic management has for international organizations with a diversified labor force. They will describe the specific characteristics of the different types of international and multicultural organizations. They will discuss the impact that cultural factors have on contemporary organizations. Additionally, they will evaluate the management tools used to make strategic corporate and functional decisions, while maintaining an internationalized and culturally diversified perspective. *(Pre-requisites: BUAD 2000)*

**INBU 1040: Legal Issues in International Business: 3 credits**

In this course, students will examine the basis and principles of mercantile law and their main applications to international transactions. They will also examine the principles of business law and their importance in the international business setting. They will discuss the role of the World Trade Organization and of fair competition beyond the regulations that govern the transactions that take place in the international markets. *(Pre-requisites: INBU 1000)*

**MATH 1050: Business Mathematics: 3 credits**

In this course, students will solve business administration problems using basic concepts of algebra and geometry. They will analyze reasoning, proportion, and progression exercises in finance. In addition, they will solve problems of systems of linear equations through any solution method and determine the factors that can influence profit on an investment. *(Pre-requisite: MATH 1010)*

**MATH 2080: Quantitative Methods: 3 Credits**

In this course, students will develop models of situations related to business administration using linear, polynomial, exponential and logarithmic functions. In addition, they will apply matrix theory to linear systems solution, optimization, and linear programming. They will also analyze investment and annuity problems using successions and series. *(Pre-requisites: MATH 1010, 1050)*

**MGMT 1020: Operations Management: 3 credits**

In this course, students will analyze production systems in manufacturing and service companies to increase productivity through effective value chain management. They will develop skills in project management, preparing accurate forecasts, and implementing strategies for effective inventory control. Furthermore, they will examine quality control principles, including Lean systems, for optimizing operations, reducing waste, and delivering high-quality products or services to customers. *(Pre-requisites: BUAD 2000, MATH 1050)*

**MGMT 2000: Communication for Managers: 3 credits**

In this course, the student will discuss the nature and importance of communication for the success of organizations. They will analyze the role of individual characteristics and their impact on communication processes. They will apply the principles of managerial communication to their work environment. Also, integrate the different communication tools, both face-to-face and distance, in terms of organizational communication. *(Pre-requisite: BUAD 2000)*

**MGMT 2010: Diversity Management in the Workplace: 3 credits**

In this course, the student will analyze the complexity and value of a multicultural environment in organizations. They will also examine the impact of cultural, generational, sexual orientation, gender, and functional diversity differences in the managerial and operational processes of an organization. In addition, you will develop strategies for promoting inclusion and improving productivity in a diverse work environment. *(Pre-requisites: BUAD 2000, BUMA 1000)*

**MGMT 3000: The Supervisor as a Leader: 3 credits**

In this course, the student will analyze leadership principles and theories applicable to supervisory processes in a business environment. They will also evaluate effective strategies for change management, decision making, and conflict resolution. In addition, students will demonstrate communication, motivation, change management, and effective leadership skills in the development of a positive organizational



culture for the achievement of the company's goals and objectives.

**MGMT 3010: Business Operations Management: 3 credits**

In this course, the student will examine the processes related to budgeting and cost analysis. They will also develop competencies for the control and optimization of financial and operational resources. In addition, they will apply strategies to improve the efficiency and sustainability of the company.

**MGMT 4000: Change Management and Sustainability: 3 credits**

In this course, the student will analyze strategies for managing organizational change and promoting sustainable practices. They will also develop leadership skills for managing change processes and adapting operations to be sustainable. In addition, students will integrate sustainability into corporate policies and strategies.

**MGMT 4010: Business Strategy and Management: 3 credits**

In this course, the student will evaluate business strategies for strategic business management. It will also examine the processes for conducting market and competitiveness analysis. In addition, the student will evaluate various factors for the creation of action plans aligned with organizational objectives.

**MKTG 1010: Marketing Principles: 3 credits**

In this course, students will analyze and discuss marketing concepts, theories, and practices in a global context. They will evaluate the selected market's cultural, social, economic, and political dimensions while considering basic elements like product, price, promotion, and place (distribution). Likewise, they will design product, price, promotion, and place strategies to successfully compete in national and international markets. They will explain the different digital media and how they can be applied to marketing strategies. Finally, they will analyze the relationship between the digital marketing strategy and the traditional marketing strategy.

**MKTG 1020: Integrated Marketing Communications: 3 credits**

In this course, students will analyze the

importance of integrating communication elements through different media to convey a clear, coherent and convincing message about a company, product, service, or brand. They will evaluate the role of advertising in integrated marketing communications (IMC) strategies aimed at the target market to promote the success and value of the brand of an organization. Additionally, they will apply communications planning and design skills to developing an integrated communications plan. *(Pre-requisite: MKTG 1010)*

**MKTG 2010: Consumer Behavior: 3 credits**

In this course, students will analyze consumer behavior, as well as the external and internal factors influencing the consumer's purchasing behavior. They will analyze in depth the purchasing decision process to identify the specific consumer needs and determine which must be fulfilled with priority, in order to develop effective marketing strategies. *(Pre-requisite: MKTG 1010)*

**MKTG 2030: Content Marketing: 3 credits**

In this course, students will discuss the principles, concepts, and strategies necessary for content marketing campaigns. They will analyze the formats and types of content relevant to the target market and consistent with the objectives included in the marketing plan for brand development. Furthermore, students will develop the skills necessary for the execution and monitoring of a content marketing plan, as well as in the interpretation of relevant metrics. *(Pre-requisites: MKTG 1010, MKTG 1020)*

**MKTG 2050: Introduction to Digital Marketing: 3 credits**

In this course, students will evaluate the advantages of digital marketing and its importance for the success of the overall marketing strategy of small and medium-sized businesses. They will develop the elements of a digital marketing plan along with the different digital channels, their advantages, and ways of integration. Moreover, they will apply search engine optimization (SEO) and website development strategies. They will analyze ways to obtain information on trends linked to the execution, development, and impact of digital marketing on the success of companies. *(Pre-requisite: MKTG 1010)*

**MKTG 3000: Marketing Research: 3 credits**

In this course, students will evaluate the basic research methodology applied to marketing topics. They will examine methods and techniques for the collection, analysis and interpretation of primary and secondary data, both for individual and business clients. *(Pre-requisites: MKTG 1020, MKTG 2010)*

**PROM 1000: Project Management Fundamentals: 3 credits**

In this course, students will comprehend the fundamentals and practices of project management. Likewise, they will examine all the components of the lifecycle of a project, from initiation to closure. They will also assess theoretical aspects of project management, aligned with the PMBOK® Guide of the Project Management Institute (PMI).

**PROM 1050: Project Communications and Stakeholder Management: 3 credits**

In this course, students will apply the tools used for planning, monitoring and controlling the communication plan for a project. They will develop strategies to maintain an effective communication with interested parties and stakeholders throughout all the phases of the project, with the objective of gaining their support and reducing resistance. In addition, students will examine the best practices in human resources planning, acquisition, development and management to procure the success of the project. *(Pre-requisites: PROM 1000)*

**PROM 2000: Quality Management: 3 credits**

In this course, students will analyze the evolution of project quality management, and its impact on the portfolios, programs and projects of the organization. They will evaluate quality management processes used in project development, in order to comply with their requirements. They will also examine concepts related to planning, control and quality assurance. Finally, students will discuss the international quality standards established by the International Organization for Standardization (ISO) and the methodologies used to achieve continued quality improvement in the internal processes of an enterprise, as well as in the design and marketing of their products and services. *(Pre-requisites: PROM 1000)*

**PROM 2050: Cost and Time Management: 3 credits**

In this course, students will develop a certificate of incorporation and planning structure for a project. They will apply time-management and project budget strategies, considering the challenges faced by organizations. Additionally, students will design a cost plan and schedule, based on the resources to be used in the project. Likewise, they will evaluate the project performance using monitoring and cost control techniques. *(Pre-requisites: PROM 1000, 2000)*

**PROM 3000: Project Risk Management: 3 credits**

In this course, students will examine the main processes related to risk management, such as planning, risk identification and register, qualitative and quantitative analysis, response preparation, and risk control. On the other hand, they will evaluate risk management principles according to the standards established by the Project Management Body of Knowledge (PMBOK® Guide), of the Project Management Institute. Also, they will develop a plan that will enable them to establish risk management strategies for any project. *(Pre-requisites: PROM 2050)*

**PROM 3050: Contracts and Procurement Management: 3 credits**

In this course, students will examine the components of a resource acquisition and management plan, using the latest edition of the PMBOK as a frame of reference, in order to ensure that all assignments and deliverables in the project plan are completed. Furthermore, they will evaluate the bid or procurement documents and contracts necessary for the acquisition of resources for a project. They will also design strategies for the management of an acquisition plan that includes managing relations with the providers and monitoring the performance of the goods and services procured. *(Pre-requisites: PROM 3000)*

**PROM 4000: Technology for Project Management: 3 credits**

In this course, students will analyze several Project Management Information Systems (PMIS) applications used for process automation. They will also describe different applications for project control and monitoring, groupware applications,



and applications for communications via internet, including mobile applications. On the other hand, students will explain the impact of current and future technologies on project management.

*(Pre-requisites: PROM 1000 / BUAD 1020)*

**PROM 4010: Project Management Seminar (Capstone): 3 credits**

In this capstone seminar, students will apply the knowledge acquired in the major courses of the bachelor's degree in Business Administration with major in Project Management, to initiate, plan, execute, control, and close a simulated project. They will develop the deliverables, following the mission and goals of the business plan. They will select processes and courses of action that will optimize the development and execution of the project, to benefit all interested parties. They will further integrate the basic alignments defined in the PMBOK® Guide of the Project Management Institute (PMI). *(Pre-requisites: PROM 1000, 1050, 2000, 2050, 3000, 3050)*

**SOME 1000: Introduction to Social Media: 3 credits**

In this course, students will summarize the most relevant aspects of the history of social media, along with its fundamental theories. They will determine the impact of social media in the fields of marketing, public relations, and publicity. They will explain what constitutes a marketing and content creation strategy for social media. Students will compare the metrics traditionally used in marketing with those used in social media. By the same token, they will evaluate the trends and technological tools available for the development of a social media plan. *(Pre-requisite: MKTG 1010)*

**SOME 2000: Social Media Marketing Strategies: 3 credits**

In this course, students will discuss the importance of having a social media marketing strategy and the benefits it provides to a business. They will analyze the components of a plan to establish a social media strategy. They will discuss how to create a business profile in the primary social network platforms, and analyze content strategies and their optimization. In addition, students will get acquainted with several emerging channels in social media to develop marketing strategies.

*(Pre-requisite: SOME 1000)*

**SOME 2010: Public Relations in Social Media: 3 credits**

In this course, students will evaluate the evolution of social media, as well as its impact on public relations. They will apply the necessary basic skills to develop, in an ethical and responsible manner, strategic messages consistent with the organizational objectives. In addition, they will analyze the phases of the development of public relations campaigns on social media: research, planning, implementation, and evaluation. *(Pre-requisites: SOME 1000, SOME 2000)*

**SOME 3000: Web and Social Media Analytics: 3 credits**

In this course, students will discuss the importance of data analysis and measurement on digital platforms, such as websites, social media, and other channels of digital marketing. They will analyze user segments, audiences, profiles, and preferences in order to understand their behavior using effectiveness metrics and key performance indicators. Additionally, they will integrate the tools and data measurement services from websites and social media in the elaboration of reports for the development of an integrated communications plan and the decision-making of a business. *(Pre-requisite: SOME 2000)*

**SOME 4000: Social Media Marketing Campaign (Capstone): 3 credits**

In this course, students will design a plan for a marketing campaign on social media. They will develop marketing strategies through practical exercises in order to reach the goals and objectives of the plan. They will also identify opportunities for improving the campaigns through monitoring social media. *(Pre-requisites: MKTG 1020, 2010, 2030, 3000, SOME 1000, 2000, 2010, 3000)*

**STAT 2000: Introduction to Statistics: 3 credits**

In this course, students will apply descriptive statistics and its key concepts in different professional scenarios. They will analyze several methods for collecting, summarizing, presenting, and interpreting quantitative and categorical data, as well as graphs for grouped and ungrouped data. Likewise, students will explain the nature of probability distribution and its application in practical situations *(Pre-requisite MATH 1010)*

***UNDERGRADUATE  
OFFICE SYSTEMS  
ACADEMIC PROGRAMS***

## Associate's Degree in Office Systems in Medical Secretary

*This program is currently in a teach-out process and is not accepting new students. Reentry may be possible only if a student can complete the program within the teach-out period, subject to approval by the Vice President of Academic Affairs. Contact Academic Affairs department for information on the teach-out date for your program at your location.*

### OBJECTIVE

The Associate's Degree in Office Systems in Medical Secretary will equip students with the knowledge, skills, and attitudes needed to perform in different health care settings, such as medical offices, hospitals, laboratories, and health insurance companies. The program provides students with the tools for developing the knowledge needed to work with documents, equipment, records, and billing processes for medical services, using manual and electronic means. In addition, it prepares students in the areas of basic accounting, electronic applications, document control, and basic auditing processes, as well as the ethical and legal aspects that govern the management of health services.

### PROGRAM COMPETENCIES

1. Apply required principles, knowledge, and skills in office systems management when administering and processing health services provided to patients or clients.
2. Express and exchange clear ideas, applying norms and laws that rule the language, in order to establish effective communications when listening, speaking, writing or using non-verbal expressions in their communication with others.
3. Critically and creatively analyze the complex situations that arise in offices that provide medical services in order to make decisions, solve problems, and assume positions that generate effective personal, professional, and work changes.
4. Organize the necessary quantitative and qualitative information in an orderly and logical fashion when working on documentation, billing, and auditing the processes of medical services provided to clients.
5. Responsibly examine documents,

readings, and digitalized information, respecting copyrights and citing their contributions correctly to document proposed arguments, making proper use of technology and its applications and equipment to facilitate and expedite personal and professional tasks.

6. Employ ethical and moral behavior when tending to patients or clients and solving complex situations at work, demonstrating civility and respect for the rules and laws established by medical state and federal agencies regarding medical billing and office systems management.
7. Recognize the richness of human diversity, respecting multicultural differences and differences in functional, physical, and mental capacity.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS:

25 Credits in General Education

16 Credits in Core Courses

36 Credits in Major Courses

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**77 Total Credits**

### GENERAL EDUCATION:

BIOL 1010	Introduction to Biology	3
ENGL 1010*	Basic English I	3
ENGL 1020	Basic English II	3
ENGL 2050	Conversational English	3
SOSC 1010	Social Sciences I	3
MATH 1010*	Basic Mathematics	3
SPAN 1010*	Basic Spanish I	3
SPAN 1020*	Basic Spanish II	3
SEMI 1001*	University Environment Seminar	1
		<b>25</b>

### CORE COURSES:

ACCO 1000	Introduction to Accounting I	4
BIOL 2000	Human Anatomy and Physiology	3
EXCL 1000L	Basic Excel	3
HEMA 1020	Legal and Ethical Issues in Health Services	

	Administration	3
SPAN 2000*	Business Spanish	3
		<b>16</b>
<b>MAJOR COURSES:</b>		
AUME 2000	Medical Auditing	3
MESE 1010	Medical Terminology	3
MESE 2500	Manual Medical Billing	3
MESE 2550	Medical Coding Principles	3
MESE 2600L**	Electronic Medical Billing and Laboratory	3
OFSY 1211L	Basic Keyboarding and Laboratory	3
OFSY 1301L	Documents Production I and Laboratory	3
OFSY 1351L	Documents Production II and Laboratory	3
OFSY 1400**	Documents Control	3
OFSY 2450	Administration and Office Techniques	3
OFSY 2730L**	Information Processing, Electronic Presentations and Laboratory	3
OFSY 2861P	Office Practice and Integrating Seminar*	3
		<b>36</b>
<b>TOTAL CREDITS</b>		<b>77</b>

**NOTES:**

- \*General education courses with an asterisk and all major and elective courses must be passed with at least a "C" grade.
- \*\*This course includes the use of simulator.
- The Associate Degree in Office Systems in Medical Secretary Practice is equivalent to 180 practice hours and 20 contact seminar hours.
- Before beginning internship, students must have completed all prerequisites of this internship course in accordance with the curriculum of the program.
- Course weeks may vary depending on the program offering, which has a total length of approximately 96 weeks.

***UNDERGRADUATE  
OFFICE SYSTEMS  
COURSE DESCRIPTIONS***

**ACCO 1000: Introduction to Accounting I: 4 credits**

In this course, students will analyze the fundamentals of accounting and their impact on business operations. They will categorize account types for registering transactions in the corresponding ledgers. Also, they will create the necessary financial reports when completing the accounting cycle of a business.

*(Pre-requisite: MATH 1010)*

**AUME 2000: Medical Auditing: 3 credits**

In this course, the students will analyze the general concepts and principles of the medical audit process. They will evaluate code descriptions that apply to withholdings on remittances of payment. Students will describe the components of a medical record and the monitoring process and their evaluation. They develop quality processes in the management of information and forms to submit bills to insurers. Therefore, they will conduct a medical audit of the medical billing process. *(Pre-requisites: MESE 1010, 2500, 2550, 2600L)*

**BIOL 2000: Human Anatomy and Physiology: 3 credits**

In this course, students will examine the basic concepts of human anatomy and physiology. They will analyze the structures of the systems of the human body, as well as the relationship between these systems and the importance of their proper functioning. Additionally, they will distinguish the most common diseases, anomalies, and disorders that affect each system. *(Pre-requisite: BIOL 1010)*

**EXCL 1000L: Basic Excel: 3 credits**

In this course, students will apply basic skills for working with Excel tools. They will manage different calculation sheets to organize data using formulas and functions. In addition, they will graph data, insert tables, and write professional reports.

**HEMA 1020: Ethical and Legal Issues in Healthcare Management: 3 credits**

In this course, the student will analyze the basis and principles of law and the constitutional basis of a legal system. Students will evaluate the policies and legal issues involved in providing healthcare services. Students will also analyze state and federal legislation regarding the right to privacy, labor law, and healthcare services.

**MESE 1010: Medical Terminology: 3 credits**

In this course, students will value the importance of using medical terminology correctly among healthcare professionals and its study for establishing a connection with the anatomy of the human body. They will analyze the meaning of medical term segments and their relationship with anatomy, health conditions, and procedures or treatments performed on patients. Likewise, they will apply medical terminology used in various branches of healthcare, such as physiology and pathology. *(Pre-requisites: BIOL 1010, 2000 or BIOL 1200 or BIOL 2010)*

**MESE 2500: Manual Medical Billing: 3 credits**

In this course, the students will examine the essential content of different medical plans and the manual billing process for medical services. Likewise, they will evaluate the medical billing system. In addition, students will develop the skills needed to work with various forms and manuals, such as CMS 1500, UB-04, Dental Claim Form (ADA 1600), ICD-10-CM, CDT and CPT, used in the billing and claim processes for medical plans and invoice reconciliation. (This course includes the use of a simulator.) *(Pre-requisite: BIOL 1010, 2000, MESE 1010)*

**MESE 2550: Medical Coding Principles: 3 credits**

In this course, students will evaluate the format and content of the ICD-10-CM and CPT manuals. They will correctly select the diagnostic and procedures codes identified in the manuals. Students will evaluate the processes, standards, and documentation in an invoice for the coding of diagnoses and medical procedures administered to the patient-client. This course includes the use of a simulator. *(Pre-requisite: MESE 1010, MESE 2500)*

**MESE 2600L: Electronic Medical Billing and Laboratory: 3 credits**

In this course, students will properly operate the electronic medical billing program and each one of its settings. They will apply their acquired skills to complete the CMS 1500, ADA 1600 and UB-04 forms in the medical billing process by using electronic programs. They will interpret the importance of information processing in claims and reconciliation processes for medical

insurance plans. They will examine the regulations and legal and ethical principles for the use and management of information, as well as the integration of technology, in the creation of electronic medical records. This course includes the use of a simulator. (*Pre-requisites:* BIOL 1010, 2000, MESE 1010, 2500)

**OFSY 1211L: Basic Keyboard and Lab: 3 credits**

In this course, students will analyze the components of the word processor screen, the options ribbon tab, and the functioning parts of a keyboard. Additionally, they will demonstrate practical proficiency in keyboarding skills using the alphabetical, numerical, and symbolic keyboards. They will also examine document transcriptions to pinpoint errors in a medical services office.

**OFSY 1301L: Documents Production I and Lab: 3 credits**

In this course, students will develop intermediate level speed and accuracy competencies in handling computer keyboards. They will employ basic techniques, as well as the knowledge and skills necessary for the production of business documents and tables of various levels of complexity. They will evaluate business reports according to the correct basic techniques. Students will demonstrate their level of proficiency in the competencies obtained in the course. (*Pre-requisite:* OFSY 1211L)

**OFSY 1351L: Documents Production II and Lab: 3 credits**

In this course, students will develop mastery of keyboard skills for the creation of office documents at an acceptable performance level. They will apply basic speed and precision skills on the keyboard for the preparation of reports and documents following different style guides. They will evaluate medical and legal documents in both English and Spanish. They will integrate the knowledge, techniques, and skills acquired in the creation of documents. . (*Pre-requisites:* OFSY 1211L, 1301L)

**OFSY 1400: Documents Control: 3 credits**

In this course, students will analyze concepts related to document administration, filing systems, as well as cycles and control of documents in a modern office. They will apply the handling of document filing systems with

digitalized database programs. Additionally, students will evaluate the legal and ethical aspects applicable to the management, retention, transfer, and disposal of documents. This course includes the use of a simulator.

**OFSY 2450: Administration and Office Techniques: 3 credits**

In this course, students will employ the administrative procedures of planning, organization, management, and control of typical activities in a medical office. They will evaluate moral and ethical aspects of behavior, respect for diversity, and interpersonal relationships. Students will also analyze the technological advances and techniques of a modern medical office.

**OFSY 2730L: Word Processing, Electronics Presentations and Laboratory: 3 credits**

In this course, students will examine the basic functions of the word processing program more commonly used in the modern office. They will analyze the most in demand program for the creation of electronic presentations. Students will also apply more complex functions in both programs, according to the current requirements of the labor market. This course includes the use of a simulator. (*Pre-requisites* OFSY 1211L, 1301L)

**OFSY 2861P: Office Practice and Integrating Seminar: 3 credits**

In this course, students will apply medical office administration skills during their supervised practice. They will also determine the services for assisting different patients or clients with an ethical and moral stance in the management of their medical information. Furthermore, students will evaluate the concepts, skills, and abilities related to the job of an office systems assistant. (*Pre-requisites:* OFSY 1211L, OFSY 1301L, OFSY 1351L, OFSY 1400, OFSY 2450, OFSY 2730L, ACCO 1000, BIOL 2000, HEMA 1020, EXCL 1000L, SPAN 2000, MESE 1010, MESE 2500, MESE 2550, MESE 2600L)

**SPAN 2000: Business Spanish: 3 credits**

This course has been designed to relate the students with logical and psychological examples necessary to achieve effective business writing. Critical thinking, analysis and synthesis will be emphasized. (*Pre-requisite:* SPAN 1010, 1020)



***UNDERGRADUATE  
TECHNOLOGY  
ACADEMIC PROGRAMS***

## Bachelor's Degree in Information Technology with Major in Information Assurance and Security

### OBJECTIVE

The Bachelor's Degree in Information Technology with major in Information Assurance and Security will prepare students to identify and manage cyber threats. Graduates will be able to apply techniques for the prevention, mitigation, and restoration of security. Additionally, they will develop critical and ethical incident management skills for the effective administration of information systems in a business environment.

### PROGRAM COMPETENCIES

1. Demonstrate skills in configuring security measures, monitoring systems and networks, and implementing redundancies to ensure the availability and integrity of information.
2. Effectively communicate proposals for information security in business environments to diverse audiences, both orally and in writing, in Spanish and English.
3. Critically examine problems and challenges related to information security as part of the development of creative and innovative solutions that optimize the performance and security of systems, in compliance with applicable industry laws and regulations.
4. Analyze incidents in a logical and structured manner, applying principles of deductive and inductive reasoning, to generate solutions to security problems in information systems.
5. Apply best practices in the use of networking and cybersecurity technologies as IT professionals.
6. Develop ethical, honest, and responsible solutions to problems related to information security, ensuring the protection of users' privacy, in compliance with relevant regulations and ethical standards.
7. Demonstrate skills in collaborating with multidisciplinary and diverse teams, as well as effectively integrating a variety of perspectives, skills, and knowledge from team members in solving challenges in the field of information security.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

40 Credits in General Education Courses

55 Credits in Core Courses

25 Credits in Major Courses

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**120 Total Credits**

### GENERAL EDUCATION:

BISC 1010	Biological Sciences	3
ENGL 1010*	Basic English I	3
ENGL 1020	Basic English II	3
ENGL 2050	Conversational English	3
HUMA 1010	Humanities I	3
HUMA 1020	Humanities II	3
ITTE 1031L	Computer Literacy And Laboratory	3
MATH 1010*	Basic Mathematics	3
SEMI 1010*	Transition to University Life and Professional Training Seminar	1
SOSC 1010	Social Sciences I	3
SOSC 1020	Social Sciences II	3
SPAN 1010*	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
SPAN 2040	Writing and Composition	3
		<b>40</b>

### CORE COURSES:

CISE 1000L	Fundamentals of Cybersecurity and Laboratory	3
CISE 1050	Information Systems Auditing	3
COMP 1000L	Components of Personal Computers and Laboratory	3
COMP 1050L	Installation of Servers and Laboratory	3
COMP 2000L	Diagnosis and Repair of Computers and Laboratory I	3
COMP 2010L	Diagnosis and Repair of Computers and Laboratory II	3
COMP 2070	CompTIA A+ Certification Exam Review	3
COMP 2080L	Fundamentals of Cloud Computing and Laboratory	3
INTE 1045	Information Technology	

	Project Management	3
INTE 1100L	Open Source Operating Systems and Laboratory	3
INTE 1200L	Fundamentals of Operating Systems and Laboratory	3
INTE 2440L	Network Fundamentals and Laboratory	3
INTE 2470L	User Support Technician and Laboratory	3
INTE 4000L	Information Technology Seminar and Laboratory	4
MATH 2050	Applied Mathematics	3
PROG 1035L	Introduction to Computer Programming Logic and Laboratory	3
PROG 2400L	Scripting Languages and Laboratory	3
PROG 3360L	Python Programming and Laboratory	3
		<b>55</b>
<b>MAJOR COURSES:</b>		
CISE 2000L	Offensive and Defensive Security and Laboratory	3
CISE 3000L	Ethical Hacking and Laboratory	4
CISE 3050L	Forensic Analysis and Laboratory	3
COMP 3050	CompTIA Security+ Certification Exam Review	3
INAS 1050L	Fundamentals of Operating System Security and Laboratory	3
INAS 2050L	Security and Server Hardening and Laboratory	3
INAS 3000	Compliance and Regulations in Telecommunications	3
INAS 3050L	Security and Redundancy in Telecommunications and Laboratory	3
		<b>25</b>
<b>TOTAL CREDITS</b>		<b>120</b>

**NOTES:**

- \*All general education courses with an asterisk and all core, major and elective courses must be passed with at least a "C" grade.
- Course weeks may vary depending on the program offering, which has a total length of approximately 144 weeks.

## Bachelor's Degree in Information Technology with Major in Network Administration

### OBJECTIVE

The Bachelor's Degree in Information Technology with major in Network Administration will prepare students with the knowledge and skills necessary for the design, configuration, and management of key operational areas of a physical or cloud network. Students will develop critical and ethical incident management skills for the effective administration of information systems in a business environment.

### PROGRAM COMPETENCIES

1. Demonstrate skills in configuring and managing physical and virtual networks, as well as in designing network architectures, implementing cloud services and resources, and their administration.
2. Effectively communicate proposals for the effective and secure management of networks in physical and virtual infrastructures to diverse audiences, both orally and in writing, in Spanish and English.
3. Critically examine the problems and challenges related to network administration, in order to develop creative and innovative solutions that optimize the performance and security of systems, in compliance with applicable industry laws and regulations.
4. Apply the principles of logical, deductive, and inductive reasoning to problem-solving in operating systems and networks.
5. Develop ethical, honest, and responsible solutions to problems related to network administration, ensuring the protection of user privacy in compliance with relevant regulations and ethical standards.
6. Demonstrate skills for collaborating with diverse multidisciplinary teams and effectively integrating the variety of perspectives, skills, and knowledge of team members in resolving challenges in network administration.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via online delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

40 Credits in General Education Courses

55 Credits in Core Courses

25 Credits in Major Courses

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**120 Total Credits**

### GENERAL EDUCATION:

BISC 1010	Biological Sciences	3
ENGL 1010*	Basic English I	3
ENGL 1020	Basic English II	3
ENGL 2050	Conversational English	3
HUMA 1010	Humanities I	3
HUMA 1020	Humanities II	3
ITTE 1031L	Computer Literacy and Laboratory	3
MATH 1010*	Basic Mathematics	3
SEMI 1010*	Transition to University Life and Professional Training Seminar	1
SOSC 1010	Social Sciences I	3
SOSC 1020	Social Sciences II	3
SPAN 1010*	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
SPAN 2040	Writing and Composition	3
		<b>40</b>

### CORE COURSES:

CISE 1000L	Fundamentals of Cybersecurity and Laboratory	3
CISE 1050	Information Systems Auditing	3
COMP 1000L	Components of Personal Computers and Laboratory	3
COMP 1050L	Installation of Servers and Laboratory	3
COMP 2000L	Diagnosis and Repair of Computers and Laboratory I	3
COMP 2010L	Diagnosis and Repair of Computers and Laboratory II	3
COMP 2070	CompTIA A+ Certification Exam Review	3
COMP 2080L	Fundamentals of Cloud Computing and Laboratory	3

INTE 1045	Information Technology Project Management	3
INTE 1100L	Open Source Operating Systems and Laboratory	3
INTE 1200L	Fundamentals of Operating Systems and Laboratory	3
INTE 2440L	Network Fundamentals and Laboratory	3
INTE 2470L	User Support Technician and Laboratory	3
INTE 4000L	Information Technology Seminar and Laboratory	4
MATH 2050	Applied Mathematics	3
PROG 1035L	Introduction to Computer Programming Logic and Laboratory	3
PROG 2400L	Scripting Languages and Laboratory	3
PROG 3360L	Python Programming and Laboratory	3
		<b>55</b>

#### **MAJOR COURSES:**

COMP 3000	CompTIA Network+ Certification Exam Review	3
COMP 3050	CompTIA Security+ Certification Exam Review	3
COMP 3060	CompTIA Cloud+ Certification Exam Review	4
INTE 2770L	Diagnosis and Maintenance of Networks and Laboratory	3
ITNA 1050L	Cloud Network Fundamentals and Laboratory	3
ITNA 2050L	Network Administration and Implementation and Laboratory	3
ITNA 3000L	Cloud Network Design and Implementation and Laboratory	3
ITNA 3050L	Cloud Computing Administration and Laboratory	3
		<b>25</b>

**TOTAL CREDITS** **120**

#### **NOTES:**

- \*All general education courses with an asterisk and all core, major and elective courses must be passed with at least a "C" grade.
- Program offered only online.
- Course weeks may vary depending on the program offering, which has a total length of approximately 144 weeks.

# Bachelor's Degree in Information Technology with Major in Software Analysis and Development

## OBJECTIVE

The Bachelor's Degree in Information Technology with major in Software Analysis and Development will prepare students with the knowledge and skills necessary to apply design and development methodologies for applications, in order to address the computing needs of an organization. Graduates of this program will demonstrate skills for creating and implementing applications using programming languages in the development of back-end and front-end algorithms. Additionally, they will develop critical and ethical incident management skills for the effective administration of information systems in a business environment.

## PROGRAM COMPETENCIES

1. Demonstrate knowledge and practical skills in the comprehensive development of high-quality web applications, including server-side programming (back-end) and database management, as well as the implementation of security measures and the creation of appealing user interfaces (front-end).
2. Communicate, in a clear and concise manner, technical information and requirements as well as proposals for solving challenges, orally and in writing, in both Spanish and English, to designers, developers, security specialists, and other professionals involved in web development projects.
3. Analyze, in a logical and critical manner, the challenges and needs in web development to identify creative and innovative solutions based on research and the latest trends in application design and development.
4. Apply ethical and moral principles in web application development, considering aspects such as respecting users' privacy, protecting data, and ensuring information integrity.
5. Demonstrate skills for collaboration with multidisciplinary and diverse teams, as well as for effectively integrating the variety of perspectives, skills, and knowledge of team

members in solving challenges in web application analysis and development.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via online delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

40 Credits in General Education Courses

55 Credits in Core Courses

25 Credits in Major Courses

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**120 Total Credits**

## GENERAL EDUCATION:

BISC 1010	Biological Sciences	3
ENGL 1010*	Basic English I	3
ENGL 1020	Basic English II	3
ENGL 2050	Conversational English	3
HUMA 1010	Humanities I	3
HUMA 1020	Humanities II	3
ITTE 1031L	Computer Literacy and Laboratory	3
MATH 1010*	Basic Mathematics	3
SEMI 1010*	Transition to University Life and Professional Training Seminar	1
SOSC 1010	Social Sciences I	3
SOSC 1020	Social Sciences II	3
SPAN 1010*	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
SPAN 2040	Writing and Composition	3
		<b>40</b>

## CORE COURSES:

CISE 1000L	Fundamentals of Cybersecurity and Laboratory	3
CISE 1050	Information Systems Auditing	3
COMP 1000L	Components of Personal Computers and Laboratory	3
COMP 1050L	Installation of Servers and Laboratory	3
COMP 2000L	Diagnosis and Repair of Computers and Laboratory I	3
COMP 2010L	Diagnosis and Repair of Computers and Laboratory II	3

COMP 2070	CompTIA A+ Certification Exam Review	3
COMP 2080L	Fundamentals of Cloud Computing and Laboratory	3
INTE 1045	Information Technology Project Management	3
INTE 1100L	Open-Source Operating Systems and Laboratory	3
INTE 1200L	Fundamentals of Operating Systems and Laboratory	3
INTE 2440L	Network Fundamentals and Laboratory	3
INTE 2470L	User Support Technician and Laboratory	3
INTE 4000L	Information Technology Seminar and Laboratory	4
MATH 2050	Applied Mathematics	3
PROG 1035L	Introduction to Computer Programming Logic and Laboratory	3
PROG 2400L	Scripting Languages and Laboratory	3
PROG 3360L	Python Programming and Laboratory	3
		<b>55</b>

#### MAJOR COURSES:

ITSA 2000L	Introduction to Back-End Development and Laboratory	3
ITSA 2050L	Web Back-End Development and Laboratory	4
ITSA 3000L	Database Administration and Laboratory	3
ITSA 3050L	Web Application Security and Laboratory	3
WADE 1000L	Front End Technologies and User Interface (UI) and Laboratory	3
WADE 1050L	Web Page Creation and Design and Laboratory	3
WADE 2050L	Data Structures and Laboratory	3
WADE 2000L	Content Management Systems (CMS) and Laboratory	3
		<b>25</b>

**TOTAL CREDITS 120**

#### NOTES:

- \*All general education courses with an asterisk and all core, major and elective courses must be passed with at least a "C" grade.
- Program offered only online.

- Course weeks may vary depending on the program offering, which has a total length of approximately 144 weeks.



## Bachelor's Degree in Information Technology, Networks, and Security

### OBJECTIVE

The Bachelor's Degree in Information Technology, Networks, and Security will prepare students with the knowledge and skills for the design, installation, configuration, diagnosis, and repair of personal computers, networks, and their devices, in accordance with the demands of the current market. Graduates of this program will demonstrate skills for applying best security practices, both offensive and defensive, as well as for forensic analysis, with critical and ethical thinking in their professional performance. Additionally, they will develop competencies for providing services in the areas of telecommunications, infrastructure, and information technology security, as well as those required for various professional certifications.

### PROGRAM COMPETENCIES

1. Develop specialized competencies in network technology and information security for the design, implementation, and maintenance of secure and reliable network infrastructures.
2. Demonstrate skills in project management related to the design, configuration, administration, and security of servers and networks in business environments.
3. Effectively communicate security and network design proposals for physical and virtual infrastructures to diverse audiences, both orally and in writing, in Spanish and English.
4. Apply logical and critical reasoning in the development of creative and innovative solutions to problems related to network infrastructure and information system security.
5. Develop solutions for incidents related to networks and information system security, in an ethical and moral manner, considering confidentiality, integrity, and respect for the privacy of information.
6. Demonstrate skills in collaborating with multidisciplinary and diverse teams, as well as effectively integrating a variety of perspectives, skills, and knowledge from

team members in solving challenges in network administration and information system security.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via onground and online delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

40 Credits in General Education Courses

55 Credits in Core Courses

25 Credits in Major Courses

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**120 Total Credits**

### GENERAL EDUCATION:

BISC 1010	Biological Sciences	3
ENGL 1010*	Basic English I	3
ENGL 1020	Basic English II	3
ENGL 2050	Conversational English	3
HUMA 1010	Humanities I	3
HUMA 1020	Humanities II	3
ITTE 1031L	Computer Literacy and Laboratory	3
MATH 1010*	Basic Mathematics	3
SEMI 1010*	Transition to University Life and Professional Training Seminar	1
SOSC 1010	Social Sciences I	3
SOSC 1020	Social Sciences II	3
SPAN 1010*	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
SPAN 2040	Writing and Composition	3
		<b>40</b>

### CORE COURSES:

CISE 1000L	Fundamentals of Cybersecurity and Laboratory	3
CISE 1050	Information Systems Auditing	3
COMP 1000L	Components of Personal Computers and Laboratory	3
COMP 1050L	Installation of Servers and Laboratory	3
COMP 2000L	Diagnosis and Repair of Computers and Laboratory I	3
COMP 2010L	Diagnosis and Repair of Computers and Laboratory II	3

COMP 2070	CompTIA A+ Certification Exam Review	3
COMP 2080L	Fundamentals of Cloud Computing and Laboratory	3
INTE 1045	Information Technology Project Management	3
INTE 1100L	Open-Source Operating Systems and Laboratory	3
INTE 1200L	Fundamentals of Operating Systems and Laboratory	3
INTE 2440L	Network Fundamentals and Laboratory	3
INTE 2470L	User Support Technician and Laboratory	3
INTE 4000L	Information Technology Seminar and Laboratory	4
MATH 2050	Applied Mathematics	3
PROG 1035L	Introduction to Computer Programming Logic and Laboratory	3
PROG 2400L	Scripting Languages and Laboratory	3
PROG 3360L	Python Programming and Laboratory	3
		<b>55</b>

#### **MAJOR COURSES:**

CISE 2000L	Offensive and Defensive Security and Laboratory	3
CISE 3000L	Ethical Hacking and Laboratory	4
CISE 3050L	Forensic Analysis and Laboratory	3
COMP 2050L	Design and Configuration of Servers and Laboratory	3
COMP 3000	CompTIA Network+ Certification Exam Review	3
COMP 3050	CompTIA Security+ Certification Exam Review	3
COMP 3070L	Server Administration and Laboratory	3
INTE 2770L	Diagnosis and Maintenance of Networks and Laboratory	3
		<b>25</b>

**TOTAL CREDITS** **120**

#### **NOTES:**

- \*All general education courses with an asterisk and all major courses must be passed with at least a "C" grade.
- Course weeks may vary depending on the program offering, which has a total length of approximately 144 weeks.

## Bachelor's Degree in Network Technology and Applications Development

*This program is currently in a teach-out process and is not accepting new students. Reentry may be possible only if a student can complete the program within the teach-out period, subject to approval by the Vice President of Academic Affairs. Contact Academic Affairs department for information on the teach-out date for your program at your location.*

### OBJECTIVE

The Bachelor's Degree in Network Technology and Applications Development program will equip students to configure, manage, and audit communications networks. They will develop the skills needed to apply several programming languages, manage relational databases, and design dynamic websites that integrate and manage various web technologies.

### PROGRAM COMPETENCIES

1. Communicate effectively in written and oral form, in English as a second language and in Spanish, developing creativity and sensibility toward assertive communication.
2. Critically analyze the economics, sociological, ethical and political problems in the modern world, thus contributing to society and improving the quality of life.
3. Develop skills related to the access and processing of information as well as how to administer application programs, such as: text processing, spreadsheet and databases.
4. Install and configure physical and logical components of computers, as well as their diagnosis and maintenance.
5. Analyze, design and develop applications for various platforms (web and desktop), responding to the needs of users and in compliance with ethical values.
6. Install, configure, administer and audit networks to provide support to the communication systems in companies.
7. Design and manage relational databases using structured languages for effective information management.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

40 Credits in General Education  
49 Credits in Core Courses  
25 Credits in Major Courses  
6 Credits in Electives Courses

### 120 Total Credits

#### GENERAL EDUCATION:

BISC 1010	Biological Sciences	3
ENGL 1010*	Basic English I	3
ENGL 1020	Basic English II	3
ENGL 2050	Conversational English	3
HUMA 1010	Humanities I	3
HUMA 1020	Humanities II	3
ITTE 1031L	Computer Literacy and Laboratory	3
MATH 1010*	Basic Mathematics	3
SOSC 1010	Social Sciences I	3
SOSC 1020	Social Sciences II	3
SPAN 1010*	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
SPAN 2040	Writing and Composition	3
SEMI 1001*	University Environment Seminar	1
		<b>40</b>

#### CORE COURSES:

ACCO 1000	Introduction to Accounting I	4
BUMA 1000	Introduction to Business	3
BUAD 3000	Human Resources Administration	3
MATH 2050*	Applied Mathematics	3
INTE 2440L	Network Fundamentals and Laboratory	3
INTE 2460L*	Data Communications and Laboratory	3
INTE 2520L*	Web Page Design and Laboratory	3
INTE 2740L	Diagnostic & Maintenance of Computer Systems and Lab	3
PROG 1035	Introduction to Computer Programming Logic	3
PROG 1140L*	Data Base Design and Laboratory	3

PROG 2280L	Visual Basic Programming and Laboratory	3
PROG 2370L*	Operating Systems & Architecture and Laboratory	3
PROG 2390L	Introduction to Java Script and Laboratory	3
PROG 2480L*	Analysis, Design & Implementation Systems and Laboratory	3
PROG 3360L	Python Programming and Laboratory	3
STAT 2000	Introduction to Statistics	3
		<b>49</b>
<b>MAJOR COURSES:</b>		
INTE 2570L*	Networks Administration and Laboratory	3
INTE 3510L*	Web Technology and Laboratory	3
INTE 4010	Networks Security and Auditing	3
INTE 4125L	Introduction to Electronic Commerce and Laboratory	3
INTE 42001	Network Technology and Applications Development Integration Seminar	
<b>Or</b>		
INTE 4161P1	Information Technology Practice	4
PROG 3365L	C# Programming and Laboratory	3
PROG 3375L	Object Oriented Programming and Laboratory	3
PROG 3425L	Data Base Management and Laboratory	3
		<b>25</b>
<b>ELECTIVES</b>		<b>6</b>
<b>TOTAL CREDITS</b>		<b>120</b>

#### NOTES:

- <sup>1</sup> Students enrolled in the on ground modality or hybrid program must take the INTE 4161P – Information Technology Practice course. Students enrolled in the full online modality program must take the INTE 4200 – Network Technology and Applications Development Integration Seminar.
- \*All general education and core courses with an asterisk and, all major and elective courses must be passed with at least a "C" grade.
- This program will be offered through the on ground and online delivery mode.

- Course weeks may vary depending on the program offering, which has a total length of approximately 144 weeks.

- Electives depend on the academic offering available in each term. Students should consult with their academic advisor.

#### • For students enrolled in the on ground modality or hybrid program:

Before beginning internship, students must have completed all prerequisites of this internship course in accordance with the curriculum of the program.

The Bachelor's Degree in Network Technology and Applications Development Practice is equivalent to 225 hours.

# Associate’s Degree in Cybersecurity

## OBJECTIVE

The Associate Degree in Cybersecurity will prepare students in the technical areas of device management (hardware), programs (software), and networks, with the aim of providing support to users of information systems. Graduates of this program will be able to apply analytical and investigative skills for monitoring and designing information security systems. Additionally, they will be able to utilize cybersecurity techniques and tools for risk prevention and mitigation, as well as system restoration.

## PROGRAM COMPETENCIES

1. Apply theoretical and practical knowledge of cybersecurity concepts, such as risk prevention and mitigation, and restoration and improvement of information systems; as well as acquire the necessary skills for diagnosing and repairing personal computers, networks, and their peripheral devices.
2. Employ skills in designing, assembling, and installing personal computers and information technology, as well as skills in configuring and implementing operating systems and networks securely and effectively.
3. Demonstrate verbal and written communication skills in Spanish and English when presenting clear and persuasive proposals for implementing security systems.
4. Analyze problems related to information systems security in a logical and critical manner to propose solutions, such as designing and implementing security systems.
5. Utilize technological and computer means in the design and implementation of security systems and documentation processes, as well as in the development of innovative and creative solutions for mitigating risks related to cyber threats.
6. Develop ethical and moral solutions for computer incidents, considering confidentiality, integrity, and respect for information privacy.
7. Demonstrate skills for collaborating with multidisciplinary and diverse teams, as well

as for effectively integrating the variety of perspectives, skills, and knowledge of its members in solving cybersecurity challenges.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

25 Credits in General Education

46 Credits in Major Courses

**71 Total Credits**

## GENERAL EDUCATION:

BISC 1010	Biological Sciences	3
ENGL 1010	Basic English I	3
ENGL 1020	Basic English II	3
ITTE 1031L	Computer Literacy and Laboratory	3
MATH 1010	Basic Mathematics	3
SOSC 1010	Social Sciences I	3
SPAN 1010	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
SEMI 1010	Transition to University Life and Professional Training Seminar	1
		<b>25</b>

## MAJOR COURSES:

CISE 1000L	Fundamentals of Cybersecurity and Laboratory	3
CISE 1050	Information Systems Auditing	3
CISE 2000L	Offensive and Defensive Security and Laboratory	3
CISE 3000L	Ethical Hacking and Laboratory	4
COMP 1000L	Components of Personal Computers and Laboratory	3
COMP 1050L	Installation of Servers and Laboratory	3
COMP 2080PL	Fundamentals of Cloud Computing and Laboratory	3
COMP 3050	CompTIA Security + Certification Exam Review	3
INTE 2440L	Network Fundamentals and Laboratory	3
INTE 1100L	Open-Source Operating Systems and Laboratory	3

INTE 1200L	Fundamentals of Operating Systems and Laboratory	3
INTE 2470L	User Support Technician and Laboratory	3
MATH 2050	Applied Mathematics	3
PROG 1035L	Introduction to Computer Programming Logic and Laboratory	3
PROG 2400L	Scripting Languages and Laboratory	3
		<b>46</b>
<b>TOTAL CREDITS</b>		<b>71</b>

#### NOTES:

\*All major courses must be passed with at least a "C" grade

Course weeks may vary depending on the program offering, which has a total length of approximately 80 weeks.

# Associate's Degree in Web Application Development

## OBJECTIVE

The Associate's Degree in Web Application Development will prepare students with the knowledge and skills necessary for using design and development methodologies for applications, in order to address the users' computing needs. Students will utilize front-end programming languages for creating and implementing applications. Graduates of this program will demonstrate skills for designing interactive and engaging web applications that ensure a functional and efficient user experience. Additionally, they will develop critical and ethical incident management skills for the effective administration of information systems in a business environment.

## PROGRAM COMPETENCIES

1. Develop technical skills and knowledge in front-end web application design and development methodologies, utilizing cutting-edge technologies and tools.
2. Use programming languages such as HTML, CSS, and JavaScript in the design of interactive and responsive web applications, as well as attractive and functional user interfaces.
3. Effectively communicate their design ideas and proposals through clear and concise presentations, using the terminology specific to the field of web application development, both orally and in writing in Spanish and English.
4. Analyze incidents related to the design and development of web applications logically, critically, and creatively, in order to enhance their interactivity, usability, and aesthetics.
5. Utilize relevant and reliable sources of information to stay updated on the latest trends and practices in the field of web application development.
6. Apply ethical and moral principles in the management of confidential information, copyright, and intellectual property rights as part of web application development.
7. Design inclusive and accessible user interfaces and experiences, accommodating the needs of diverse user groups.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via online delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

25 Credits in General Education

49 Credits in Major Courses

**74 Total Credits**

## GENERAL EDUCATION:

BISC 1010	Biological Sciences	3
ENGL 1010	Basic English I	3
ENGL 1020	Basic English II	3
ITTE 1031L	Computer Literacy and Laboratory	3
MATH 1010	Basic Mathematics	3
SOSC 1010	Social Sciences I	3
SPAN 1010	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
SEMI 1001*	University Environment Seminar	1
		<b>25</b>

## MAJOR COURSES

CISE 1000L	Fundamentals of Cybersecurity and Laboratory	3
COMP 1000L	Components of Personal Computers and Laboratory	3
COMP 1050L	Installation of Servers and Laboratory	3
COMP 2080L	Fundamentals of Cloud Computing and Laboratory	3
INTE 1100L	Open-Source Operating Systems and Laboratory	3
INTE 1200L	Fundamentals of Operating Systems and Laboratory	3
INTE 2440L	Network Fundamentals and Laboratory	3
INTE 2470L	User Support Technician and Laboratory	3
MATH 2050	Applied Mathematics	3
PROG 1035L	Introduction to Computer Programming Logic and Laboratory	3
PROG 2400L	Scripting Languages and Laboratory	3
WADE 1000L	Front End Technologies and User Interface (UI) and Laboratory	3
WADE 1050L	Web Page Creation and Design and Laboratory	3
WADE 2000L	Content Management Systems (CMS) and Laboratory	3
WADE 2050L	Data Structures and Laboratory	3
ITSA 2000L	Introduction to Back-End Development and Laboratory	4
		<b>49</b>

## TOTAL CREDITS

**74**

## NOTES:

- All general education courses with an asterisk and all major courses must be approved with a minimum grade of "C"

Course weeks may vary depending on the program offering, which has a total length of approximately 96 weeks.



## Associate's Degree in Electrical Engineering Technology in Renewable Energy

### OBJECTIVE

This program prepares the student with the necessary knowledge, skills and abilities to perform tasks as an electrical power technician, assistant or installer of electrical wiring systems, modern systems of electrical illumination, among others. Also, the student will be able to offer maintenance to electrical diagrams based on the National Electrical Code (NEC) as well as interpreting residential, commercial or industrial electrical diagrams, and work with programmable logic controllers (PLC'S). The graduate will be able to communicate effectively, respecting the ethical norms of their profession for the benefit of the progress and quality of life of their community and country.

### PROGRAM COMPETENCIES

1. Apply the knowledge, practices, and skills of the profession when installing, maintaining, and repairing electrical systems based on the National Energy Code (NEC), including the operation of sustainable and renewable energy (green energy) technology.
2. Effectively express, verbally, in writing, and in other appropriate manners of interpersonal expression concepts, ideas, and terms in both professional and personal realms.
3. Apply critical thinking abilities in decision-making related to their professional field and individual character.
4. Apply logical reasoning skills to solve situations related to the professional field.
5. Use technological means responsibly to facilitate their task performance, always consulting, documenting, and respecting data and information authorship.
6. Exert their practice respecting the ethical norms that govern the profession for the benefit of the community's and country's progress and quality of life.
7. Responsibly exert their practice, demonstrating a respectful treatment toward the diversity of clients and personnel that require their services.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS:

16 Credits in General Education

19 Credits in Core Courses

41 Credits in Major Courses

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**76 Total Credits**

### GENERAL EDUCATION:

ENGL 1010*	Basic English I	3
HUMA 1010	Humanities I	
OR		
SOSC 1010	Social Sciences I	3
ITTE 1031L	Computer Literacy and Laboratory	3
MATH 1010*	Basic Mathematics	3
SPAN 1010*	Basic Spanish I	3
SEMI 1001*	University Environment Seminar	1
		<b>16</b>

### CORE COURSES:

MATH 2015*	Mathematics for Engineering Technology	3
ELEC 1020*	Basic Electronics	4
ELEC 1031L*	Basic Electronics Laboratory	1
ELEC 2400*	Intro. To Industrial Electronics	3
ELEC 2411L*	Intro. To Industrial Electronics Laboratory	1
ELEC 2850	Programmable Logic Controllers (PLC)	3
ELEC 2861L	Programmable Logic Controllers Laboratory (PLC)	1
ENGL 2160	Technical English	3
		<b>19</b>

### MAJOR COURSES:

ELEN 1010	DC Circuit Analysis	3
ELEN 1011L	DC Circuit Analysis Laboratory	1
ELEN 1020	AC Circuit Analysis	3
ELEN 1021L	AC Circuit Analysis Laboratory	1
ELEN 2320	Electrical Regulations and Wiring	3
ELEN 2321L	Electrical Regulations and Wiring Laboratory	2
ELEN 2330	Alternative Energy	

	Machines	3
ELEN 2331L	Alternative Energy Machines Laboratory	1
ELEN 2430	Conventional and Renewable, Electric Power Systems	3
ELEN 2431L	Conventional and Renewable, Electric Power Systems Lab	1
ELEN 2470	Modern Systems of Electrical Illumination	2
ELEN 2471L	Modern Systems of Electrical Illumination Laboratory	1
ELEN 2550	Electrical Systems Protection	3
ELEN 2551L	Electrical Systems Protection Laboratory	1
ELEN 2600	Industrial Security	3
ELEN 2750	Photovoltaic and Wind Energy	3
ELEN 2751L	Photovoltaic and Wind Energy Laboratory	1
ELEN 2901P	Electrical Practice*	3
ELEN 2910	Integrating Seminar on Electrical Engineering Technology	3
		<b>41</b>
<b>TOTAL CREDITS</b>		<b>76</b>

**NOTES:**

- \*All general education and core courses with an asterisk and all major and elective courses must be passed with at least a "C" grade.
- Before beginning internship, students must have completed all prerequisites of this internship course in accordance with the curriculum of the program.
- The Associate's Degree in Electrical Engineering Technology in Renewable Energy Practice is equivalent to 225 hours.
- Course weeks may vary depending on the program offering, which has a total length of approximately 96 weeks.

# Associate's Degree in Network Technology and Applications Development

*This program is currently in a teach-out process and is not accepting new students. Reentry may be possible only if a student can complete the program within the teach-out period, subject to approval by the Vice President of Academic Affairs. Contact Academic Affairs department for information on the teach-out date for your program at your location.*

## OBJECTIVE

The Associate's Degree in Network Technology and Applications Development will equip students with the basic skills to work with the architecture and administration of communication networks. Also, students will recognize the process of applications development in various programming languages and will design websites.

## PROGRAM COMPETENCIES

1. Communicate effectively in written and oral form, in English as a second language and in Spanish, developing creativity and sensibility toward assertive communication.
2. Critically analyze the economics, sociological, ethical and political problems in the modern world, thus contributing to society and improving the quality of life.
3. Develop skills related to the access and processing of information as well as how to administer application programs, such as: text processing, spreadsheet and databases.
4. Install and configure physical and logical components of computers, as well as their diagnosis and maintenance.
5. Design and develop applications for various platforms (web and desktop), responding to the needs of users and in compliance with ethical values.
6. Install, configure and administer networks to provide support to the communication systems in companies.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

28 Credits in General Education

43 Credits in Major Courses

3 Credits in Elective Courses

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**74 Total Credits**

## GENERAL EDUCATION:

BISC 1010	Biological Sciences	3
ENGL 1010	Basic English I	3
ENGL 1020	Basic English II	3
HUMA 1010	Humanities I	3
ITTE 1031L	Computer Literacy and Laboratory	3
MATH 1010	Basic Mathematics	3
SOSC 1010	Social Sciences I	3
SPAN 1010	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
SEMI 1001*	University Environment Seminar	1
		<b>28</b>

## MAJOR COURSES

ACCO 1000	Introduction to Accounting I	4
BUMA 1000	Introduction to Business	3
INTE 2440L	Network Fundamentals and Laboratory	3
INTE 2460L	Data Communications and Laboratory	3
INTE 2520L	Web Page Design and Laboratory	3
INTE 2570L	Networks Administration and Laboratory	3
INTE 2740L	Diagnostic & Maintenance of Computer Systems And Lab	3
MATH 2050	Applied Mathematics	3
PROG 1035	Introduction to Computer Programming Logic	3
PROG 1140L	Data Base Design and Laboratory	3
PROG 2280L	Visual Basic Programming and Laboratory	3
PROG 2370L	Operating Systems & Architecture and Laboratory	3
PROG 2390L	Introduction to Java Script and Laboratory	3
PROG 2480L	Analysis, Design & Implementation Systems and Laboratory	3
		<b>43</b>

## ELECTIVES

## TOTAL CREDITS

**3**

**74**

## NOTES:

- \*All major and elective courses must be passed with at least a "C" grade.
- This program will be offered through the on ground and online delivery mode.
- Electives depend on the academic offering available in each term. Students should consult with their academic advisor.
- Course weeks may vary depending on the program offering, which has a total length of approximately 96 weeks.

***UNDERGRADUATE  
TECHNOLOGY  
COURSE DESCRIPTIONS***

**BUAD 3000: Human Resources****Administration: 3 credits**

In this course, students will evaluate the principles, rules, and practices of administration that apply to human resource management. They will strategically plan activities that pertain to human resources departments, such as personnel recruiting, selection, and assessment processes, as well as personnel formation, training, development, promotion, transferal, discipline, and remuneration processes, in accordance with labor legislation and collective agreements. They will also analyze the importance of developing human capital in organizations in view of the trends of the 21st century.

**BUMA 1000: Introduction to Business: 3 credits**

In this course, students will distinguish fundamental business concepts. They will analyze theoretical foundations related to key areas for operating a business, such as management, human resources management, marketing, finances, and global business. Additionally, students will develop the knowledge and skills to understand the world of business and the essential skills necessary to ensure successful business development in today's competitive market.

**CISE 1000L: Fundamentals of Cybersecurity and Laboratory: 3 credits**

In this course, students will examine the fundamental principles of cybersecurity and the challenges associated with different types of cyberattacks and their motivations. Students will analyze the operational security processes, policies, standards, and procedures. In addition, they will select controls for risk management to protect systems and networks against cyberattacks. This course includes practical laboratory exercises for the application of theoretical knowledge acquired.

**CISE 1050: Information Systems Auditing: 3 credits**

In this course, students will apply the principles, practices, and techniques necessary for conducting audits and monitoring information systems. Likewise, they will identify information systems vulnerabilities to mitigate risks in the IT assets of an industry. Additionally, they will analyze data flow structures and control

mechanisms established within information systems based on their industry and regulatory framework. (*Prerequisites: CISE 1000L*)

**CISE 2000L: Offensive and Defensive Security and Laboratory: 3 credits**

In this course, students will evaluate processes for protecting and securing systems of information against cyber threats. They will also apply offensive and defensive techniques for protecting information systems against vulnerabilities. Likewise, they will develop a security plan that includes strategies for business continuity and ensuring the integrity and confidentiality of data in digital settings. This course includes practical laboratory exercises that will allow the student to apply the theoretical knowledge acquired. (*Prerequisites: CISE 1000L*)

**CISE 3000L: Ethical Hacking and Laboratory: 4 credits**

In this course, students will apply security analysis and evaluation techniques to identify vulnerabilities and weaknesses in computer systems. They will also use tools and methodologies to conduct penetration testing and assessing system resilience against cyberattacks. In addition, they will implement preventive and corrective measures to strengthen the security of systems and networks. (*Prerequisites: CISE 1050, CISE 2000L*)

**CISE 3050L: Forensic Analysis and Laboratory: 3 credits**

In this course, students will develop knowledge in the methodologies used for the investigation of computer security incidents and cybercrime. They will apply techniques for the identification, collection, and preservation of digital evidence in a forensic environment. In addition, they will prepare forensic reports for documenting the investigation process and results, evaluating vulnerabilities in systems and applications, and providing recommendations for incident resolution. (*Prerequisites: CISE 1000L, 1050, CISE 2000L*)

**COMP 1000L: Components of Personal Computers and Laboratory: 3 credits**

In this course, students will evaluate the types and characteristics of technological devices and components used in computers. They will select appropriate cables and connectors for networks,

devices, and peripherals, as well as the necessary components for assembling and configuring functional computer systems. Additionally, they will recommend options for device maintenance, enhancement, and security. This course includes practical laboratory exercises to apply the theoretical knowledge acquired.

**COMP 1050L: Installation of Servers and Laboratory: 3 credits**

In this course, students will analyze concepts and processes related to the installation of servers. They will also examine the roles, features, and versions of server operating systems, server management and interfaces. In addition, they will apply the theory and techniques acquired through exercises focused on server installation, virtualization, and tools for diagnosing the operating system. This course includes practical laboratory exercises for the application of theoretical knowledge acquired. (Pre-requisites: COMP 1000L, INTE 1100L)

**COMP 2000L: Diagnosis and Repair of Computers and Laboratory I: 3 credits**

In this course, students will apply the methodology for diagnosing and solving problems in computers, mobile devices, and networks. They will resolve common issues in hardware, storage units, video, mobile devices, printers, and wired and wireless networks. In addition, they will implement preventive measures and documentation processes for the maintenance and proper functioning of computer and network systems. This course includes practical laboratory exercises for the application of theoretical knowledge acquired. (Pre-requisites: COMP 1000L)

**COMP 2010L: Diagnosis and Repair of Computers and Laboratory II: 3 credits**

In this course, students will develop skills in managing, diagnosing, and resolving software program issues. They will analyze common issues with Windows, MacOS, and Linux operating systems. In addition, they will apply solutions to common problems in networks and the security of operating systems. This course includes practical laboratory exercises for the application of theoretical knowledge acquired. (Pre-requisites: COMP 2000L)

**COMP 2050L: Design and Configuration of Servers and Laboratory: 3 credits**

In this course, students will develop the design for configuring Windows Server services. They will also employ the appropriate network services and roles for servers. Likewise, they will utilize tools to detect and solve network issues through the servers. This course includes practical laboratory exercises to apply the theoretical knowledge acquired. (Pre-requisite: COMP 1050L)

**COMP 2070: CompTIA A+ Certification Exam Review: 3 credits**

In this course, students will develop knowledge related to the identification, selection, and configuration of hardware, software, and networks. They will distinguish processes related to the installation and configuration of operating systems, networks, and mobile devices to troubleshoot errors and failures in information systems within business environments. In addition, they will evaluate the best practices in operational procedures related to computer security and compliance with IT professional standards. (Pre-requisites: INTE 2470L)

**COMP 2080L: Fundamentals of Cloud Computing and Laboratory: 3 credits**

In this course, students will analyze concepts and principles of cloud computing. They will demonstrate competence in understanding cloud service models and implementing and managing infrastructures in the cloud. They will apply techniques for designing and deploying software in cloud environments. This course includes practical laboratory exercises for the application of theoretical knowledge acquired. (Pre-requisites: COMP 1050L, INTE 2440L)

**COMP 3000: CompTIA Network+ Certification Exam Review: 3 credits**

In this course, students will analyze the fundamentals of communication networks, their topology, and architecture. They will also evaluate network connectivity by implementing wired and wireless devices in physical and virtual environments. In addition, they will apply network strengthening and security techniques in response to common performance and availability issues. (Prerequisites: INTE 2740L)



**COMP 3050: CompTIA Security + Certification Exam Review: 3 credits**

In this course, students will evaluate various scenarios for detecting threats, attacks, and vulnerabilities in computer systems. In addition, they will select policies, processes, and procedures for resolving security incidents. They will also explain the relevance of governance systems and security regulations in business environments. This course will use a simulator of practical exercises useful in preparing the student for the CompTIA Security+ certification exam. *(Prerequisites: CISE 1050L, CISE 2000L)*

**COMP 3060: CompTIA A+ Certification Exam Review: 4 credits**

In this course, students will analyze the foundations of Cloud Computing including its architecture and design. They will also solve common issues related to cloud management and the implementation of cloud services and solutions. Furthermore, they will apply security measures to ensure data integrity based on an assessment of security and privacy issues in cloud environments. *(Prerequisites: ITNA 3050L)*

**COMP 3070L: Server Administration and Laboratory: 3 credits**

In this course, the student will analyze the application of Windows Server administration skills to improve system performance and security. Students will also implement installation and configuration procedures for network services and remote access in virtualized environments. In addition, you will apply automation processes in virtualization and redundancy technologies for the management of servers, strengthening their security and business continuity. This course includes practical laboratory exercises for the application of the acquired knowledge. *(Prerequisites: COMP 2050L)*

**ELEC 1020: Basic Electronics: 4 credits**

In this electronics fundamentals course, students will analyze possible solutions to real-world electric circuit problems by applying basic concepts such as the purpose of semiconductor diodes, transistors, amplifiers, thyristors, as well as optoelectronic components and their application in communications systems, such as sound, radio, and television. They will examine electronic equipment, demonstrating control of

the process for correcting failures in electric and electronic systems. In addition, they will contrast the load of a conventional residential electric system and its equivalent in a renewable energy system (solar) in terms of the electronic circuits needed for its development and the implementation of controllers and inverters, among others. *(Pre-requisites: ELEN 1010, 1011L) (Co-requisite: ELEC 1031L)*

**ELEC 1031L: Basic Electronics Lab: 1 credit**

In this course, students will perform a series of exercises related to the practical management of diodes, transistors, thyristors, and other electronic components. They will demonstrate how the measurement of each component is obtained to verify its status, its amplifier circuits, and its construction. Furthermore, they will apply their knowledge when handling, processing, and connecting equipment related to renewable energy sources such as inverters and solar panels. *(Pre-requisites: ELEN 1010, 1011L) (Co-requisite: ELEC 1020)*

**ELEC 2400: Introduction to the Industrial Electronics: 3 credits**

In this course, students will apply the basic concepts of industrial electronics and the safety techniques required to work with electronic equipment. They will interpret industrial electrical diagrams. In addition, they will analyze the basic electromechanical configurations of some industrial processes to recognize various automation mechanisms. *(Co-requisite: ELEC 2411L) (Pre-requisites: ELEC 1020, 1031L)*

**ELEC 2411L: Introduction to the Industrial Electronics Laboratory: 1 credit**

In this course, students will apply the basics of electronics when working with industrial applications. Through laboratory exercises, they will experiment basic configurations and application of operational amplifiers, thyristors, logic gates, diagrams, and control components. In addition, they will implement industrial safety techniques, taking into consideration the special codes that govern them. *(Co-requisite: ELEC 2400) (Pre-requisites: ELEC 1020, 1031L)*

**ELEC 2850: Programmable Logic Controllers (PLC): 3 credits**

In this course, students will examine the historical elements that led to the development of



programmable logic controllers (PLCs), their functions, and capabilities, identifying the advantages and disadvantages of their use. Additionally, they will analyze various programming formats, as well as the processes of installation, maintenance, monitoring, and diagnosis of PLCs, using ladder diagrams and troubleshooting. They will assess applicable safety rules during work with PLC formats.

**ELEC 2861L: Programmable Logic Controllers (PLC) Laboratory: 1 credit**

In this course, students will analyze concepts, register functions, processes, and skills acquired through advanced units of programmable logic controllers (PLCs), different applications for load control and robotics, timers, and counters. They will also explain the design features, internal architecture, and operational principles of programmable logic controllers. Moreover, they will carry out processes for diagnosing, maintaining, and repairing applications that may arise in a programmable logic controller (PLC). *(Co-requisite: ELEC 2850) (Pre-requisites: ELEC 2400, 2411L)*

**ELEN 1010: DC Circuit Analysis: 3 credits**

In this course, students will examine the fundamental concepts and principles of electricity, direct current (DC), and the laws associated with DC circuits. They will also analyze fundamental laws and theorems for managing electric currents and loads in DC electrical circuits. Furthermore, they will evaluate techniques for analyzing electrical circuits, their components, and procedures. *(Co-requisite: ELEN 1011L)*

**ELEN 1011L: DC Circuit Analysis Laboratory: 1 credit**

In this course, students will apply fundamental concepts and principles of electricity, direct current (DC), and laws associated with DC circuits through laboratory exercises. They will employ fundamental laws and theorems in the handling of electric currents and charges using direct voltage signals. In addition, they will evaluate techniques for analyzing electrical circuits and their components according to established standards and regulations. *(Co-requisite: ELEN 1010)*

**ELEN 1020: AC Circuit Analysis: 3 credits**

In this course, students will examine the concepts and principles of alternating current (AC) electrical circuits using vector analysis of electromagnetic forces. They will also analyze the basic laws of physics and complex numbers applied to electrical force circuits. Moreover, they will evaluate systems and components of alternating current circuits in everyday life and workplace settings. *(Co-requisite: ELEN 1021L)*

**ELEN 1021L: AC Circuit Analysis Laboratory: 1 credit**

In this course, students will solve mathematical exercises by applying the vector analysis of electromagnetic forces in alternating current (AC) circuits. Furthermore, they will practice additional measuring and circuit-building skills by solving possible situations that occur day-to-day and in the workplace. *(Co-requisite: ELEN 1020)*

**ELEN 2320: Electrical Regulations and Wiring: 3 credits**

In this course, students will evaluate electrical blueprints and diagrams of residential, commercial, and industrial installations. They will analyze local regulations and laws governing installations, as established by the National Electrical Code (NEC), for the maintenance and repair of systems in various types of electrical wiring. In addition, they will apply skills in a logical and coordinated manner, adhering to relevant safety norms and measures. *(Co-requisites: ELEN 2321L) (Pre-requisites: ELEN 1020, 1021L)*

**ELEN 2321L: Electrical Regulations and Wiring Laboratory: 2 credits**

In this laboratory course, students will analyze electrical diagrams and blueprints following the installation procedures of electrical devices and equipment, at residential, commercial, and industrial levels. They will examine the installation of wiring systems in various scenarios using electrical blueprints. Students will evaluate everyday situations in a logical and coordinated manner, following applicable safety standards and measures. Furthermore, they will apply design methods using regulations from the National Electrical Code (NEC) and the Electric Power Authority (AEE, by its Spanish acronym) to maintain and repair various types of electrical wiring systems. *(Co-requisites: ELEN 2320) (Pre-requisites: ELEN 1020, 1021L)*

**ELEN 2330: Alternative Energy Machines: 3 credits**

In this course, students will analyze different ways to produce energy in alternators, and the devices, mechanisms, and machinery used in the transmission, distribution, and consumption of alternating current. They will explain the operation of various types of alternating current and direct current machines. In addition, they will examine the established safety strategies and rules to responsibly install, maintain, and operate electrical machines. *(Co-requisite: ELEN 2331L) (Pre-requisites: ELEN 1020, 1021L)*

**ELEN 2331L: Alternative Energy Machines Laboratory: 1 credit**

In this course, students will apply their knowledge and skills in the installation of different alternating current and direct current machinery. They will examine the operation of various types of alternating current and direct current machines. In addition, they will employ the established safety strategies and rules to responsibly install, maintain, and operate alternate energy machines. *(Co-requisite: ELEN 2330L) (Pre-requisites: ELEN 1020, 1021L)*

**ELEN 2430: Conventional and Renewable, Electric Power Systems: 3 credits**

In this course, students will examine the operation and maintenance of the conventional and renewable electric power system of Puerto Rico. They will analyze different electricity generation, transformation, transmission, distribution, and consumption systems. In addition, they will explain the function of the machinery, equipment, tools, and devices used in three-phase and single-phase systems. *(Co-requisites: ELEN 2431L) (Pre-requisites: ELEN 1020, ELEN 1021L)*

**ELEN 2431L: Conventional and Renewable, Electric Power Systems Laboratory: 1 credit**

In this course, students will perform practical exercises related to the transition and distribution electric power system. They will use concepts related to different conventional and renewable electric power systems, as well as three-phase generation, phase sequences, transmission lines, and reactive power transformation into transmission distribution, and consumption lines. In addition, they will apply the safety standards

recommended for the electric power system in Puerto Rico. *(Co-requisites: ELEN 2430) (Pre-requisites: ELEN 1020, ELEN 1021L)*

**ELEN 2470: Modern Systems of Electrical Illumination: 2 credits**

In this course, students will examine the different techniques used in the design of modern interior and exterior lighting systems. They will analyze the basic units, the physical principles of operation, and the different lighting fixtures used for illumination. In addition, they will explain the lighting control process, as well as its interior and exterior application, taking into account the safety in the lighting systems' installation, repair, and maintenance processes. *(Co-requisites: ELEN 2471L) (Pre-requisites: ELEN 2320, 2321L)*

**ELEN 2471L: Modern Systems of Electrical Illumination Laboratory: 1 credit**

In this course, students will analyze the techniques used in the design of modern indoor and outdoor lighting systems. They will apply the physical principles of operation when installing different light fixtures used in illumination. They will control the illumination process when applying indoor and outdoor lighting control systems, considering the safety standards when installing, repairing, and maintaining these systems. *(Co-requisites: ELEN 2470) (Pre-requisites: ELEN 2320, 2321L)*

**ELEN 2550: Electrical Systems Protection: 3 credits**

In this course, students will examine the appropriate procedures to detect failures in the control and protection of different electric systems. They will analyze the electrical power system protection principles. They will explain the various monitoring methods for preservation and maintenance service programs offered for electrical equipment. In addition, they will apply safety rules when performing demonstrations. *(Co-requisite: ELEN 2551L) (Pre-requisites: ELEN 2320, 2321L)*

**ELEN 2551L: Electrical Systems Protection Laboratory: 1 credit**

In this course, students will examine the function of different systems of protection for electric systems through simulated exercises. They will apply the standardized symbols used in the control and protection diagrams of electrical

protection systems. In addition, they will demonstrate the application of the established safety rules when installing, maintaining, and operating electrical protection systems in the laboratory practice. *(Co-requisites: ELEN 2550)*  
*(Pre-requisites: ELEN 2320, 2321L)*

**ELEN 2600: Industrial Security: 3 credits**

In this course, students will examine fundamental safety and health concepts relevant to the electronic industry, service, and manufacturing. Additionally, they will analyze preventive and remedial measures in response to potential accidents caused by electrical shocks, inhalation of toxic gases, and other work-related hazards. They will also apply standards, laws, and provisions stipulated by the Department of Labor and the Occupational Safety and Health Administration (OSHA) aimed at accident prevention and protection of employers and employees.

**ELEN 2750: Photovoltaic and Wind Energy: 3 credits**

In this course, students will examine the theoretical and practical concepts for the development and implementation of renewable energy systems. They will demonstrate mastery of the basic skills needed to implement and maintain photovoltaic and wind energy systems. Furthermore, they will evaluate the local and global energy situation, including energy action laws and regulations. *(Co-requisite: ELEN 2751L)*  
*(Pre-requisites: ELEN 2430, 2431L)*

**ELEN 2751L: Photovoltaic and Wind Energy Laboratory: 1 credit**

In this course, students will apply practical concepts for the development and implementation of solar and wind renewable energy systems, as well as of other related sources. They will demonstrate mastery of the basic skills needed to install, troubleshoot, repair, and maintain photovoltaic and wind energy systems. They will also discuss the energy situation at a local and global level, including energy action laws and regulations. *(Co-requisite: ELEN 2750)* *(Pre-requisites: ELEN 2430, 2431L)*

**ELEN 2901P: Electrical Practice: 3 credits**

In this course, students will put into practice the knowledge, skills, and techniques related to electrical engineering and renewable energy in a

real-world work scenario in the areas of manufacturing or service. They will refine the skills needed to work in the technical field of electronics. They will apply equipment troubleshooting, repair, and maintenance techniques, respecting the safety standards and regulations that govern the electric power industry in PR and the US. *(Pre-requisites: ELEN 1010, 1011L, 1020, 1021L, 2320, 2321L, 2330, 2331L, 2430, 2431L, 2470, 2471L, 2550, 2551L, 2600, 2750, 2751L)* *(Co-requisite: ELEN 2910)*

**ELEN 2910: Integrating Seminar on Electrical Engineering Technology: 3 credits**

In this course, students will apply knowledge of installation, maintenance, and repair processes during various facets of electrical installations. They will evaluate daily life and workplace situations related to the logical application of mathematical expressions and electrical current distribution. They will assess the importance of a safe work environment and the responsible operation of electric current machines according to safety standards and regulations governing the electric power industry in Puerto Rico and the United States. *(Pre-requisites: ELEN 1010, 1011L, 1020, 1021L, 2320, 2321L, 2330, 2331L, 2430, 2431L, 2470, 2471L, 2550, 2551L, 2600, 2750, 2751L)*  
*(Co-requisite: ELEN 2901P)*

**ENGL 2160: Technical English: 3 credits**

In this course, students acquire the skills to communicate both verbally and in writing using technical English, including using the names of devices related to the engineering technology field. They will practice technical vocabulary used in the development of technical reports, memos, letters, *résumés*, and other documents. They will also examine the steps for creating a formal technical report from selected areas, using the library as a source of information. Finally, they will also analyze the use of graphics included in these reports.

**INAS 1000: Introduction to Information Assurance and Security: 3 credits**

In this course, students will evaluate information technologies security techniques to determine a system's level of security. They will identify malicious programs known as malware to examine the way in which they spread

throughout the user's system. Students will integrate tools, technologies and standards to protect the target system's network.

**INAS 1050: Fundamentals of Operating System Security and Laboratory: 3 credits**

In this course, the student will analyze the principles and the planning process involved in information security. The student will evaluate risk management and security processes of computer networks, as well as which technologies and implementation methods best respond to an organization's need to secure its information. Also, describe the professional, ethical and legal aspects of information security. *(Pre-requisites: CISE 1000L, INTE 1200L)*

**INAS 2050L: Security and Server Hardening and Laboratory: 3 credits**

In this course, students will examine strategies and techniques aimed at strengthening server security (server hardening) to reduce attack risks and vulnerabilities. They will also explore the implementation of hardening measures, such as secure configurations, regular updates, strong authentication, and data encryption to protect systems. Additionally, they will apply server hardening practices in business environments to ensure the integrity and reliability of servers in their critical roles within the technology infrastructure. *(Pre-requisite: COMP 1050L)*

**INAS 3000: Compliance and Regulations in Telecommunications: 3 credits**

In this course, students will examine the regulations and standards governing telecommunications at the national and international levels. They will analyze legal requirements and standards for privacy, security and data protection in the field of communications. They will also explore effective compliance management of established policies and regulations to ensure the integrity and confidentiality of communications in a constantly changing technological environment *(Pre-requisites: CISE 1050, INTE 2440L)*

**INAS 3050L: Security and Redundancy in Telecommunications and Laboratory: 3 credits**

In this course, students will examine best practices for implementing security in networks and communication systems. They will also

program advanced security measures designed to create redundant solutions that ensure operational continuity in the face of potential failures or attacks. Additionally, they will develop skills in designing and configuring resilient network architectures, as well as implementing appropriate security protocols. *(Pre-requisites: CISE 2000L, INTE 2440L)*

**INTE 1000: Human-Computer Interface and Interactions: 3 credits**

In this course, students will analyze the history of the evolution of computer system interfaces and the levels of human-computer interaction. They will identify the available sensory systems by following interface design specifications. They will develop a project based on HCI using all of the design steps and the methodologies established by analyzing the specifications.

**INTE 1010: Information Technology Strategic Planning: 3 credits**

In this course, students will analyze the challenges of managing technology and information systems. They will evaluate how the information is controlled, how the data centers are managed and the hiring process. They will examine the practice of acquiring technology and how to manage the relationship with the suppliers in order to achieve agreements that are acceptable to both. They will verify that the organization's strategic plan for Information Technology is aligned with its needs.

**INTE 1020: Inf. Technology Infrastructure Management: 3 credits**

In this course, students will analyze the evolution and basic concepts of IT infrastructure management. They will evaluate data management tools, as well as the storage and security management for an information system. They will also argue about the technological solutions available in the market, the business systems and the supply chain management. In addition, students will explain the relationship between the IT strategic planning process and the insourcing and outsourcing strategies. *(Pre-requisites: INTE 1010)*

**INTE 1030: Inf. Technology Performance Analysis and Design: 3 credits**

In this course, students will examine the management models and frameworks used to

measure the performance of an IT department. They will evaluate the integration of management, operational and performance strategies with the purpose of measuring the success of the management of information systems department. They will analyze the performance of the service delivery life cycle results provided by an IT department. Students will also examine diverse tools that will help evaluate the performance of service delivery and its comparison with industry standards.

**INTE 1040: Information Technology Project Management: 4 credits**

In this course, students will analyze the different metrics and measurements used in project management. They will apply project management techniques to real industry situations. They will also develop the processes that are necessary for every project (risk and scope). They will distinguish between the programs used for planning and those used to generate estimates. They will analyze quality management and the models associated with it.

**INTE 1045: Information Technology Project Management: 3 credits**

In this course, students will develop skills in planning and executing information technology projects. They will also evaluate tools and techniques for effective project monitoring and control in the field of information technology. In addition, they will apply effective communication and leadership techniques in project team management, including conflict resolution techniques and collaboration with internal and external stakeholders.

**INTE 1100L: Open-Source Operating Systems and Laboratory: 3 credits**

In this course, students will perform the installation, configuration, and management of open-source operating systems using graphical interfaces or command lines. They will manage processes for creating user accounts and groups, as well as planning techniques for resource control. In addition, they will implement security, protection, and optimization measures to ensure the integrity, confidentiality, and efficiency of the operating system. This course includes practical laboratory exercises for the application of theoretical knowledge acquired. (*Pre-requisite: COMP 1000L*)

**INTE 1200L: Fundamentals of Operating Systems and Laboratory: 3 credits**

In this course, students will analyze the principles, functions, and essential components involved in the installation and administration of an operating system. They will evaluate file formats and device storage capacity. In addition, they will determine the types of updates, monitoring, and security tools necessary for operating system protection. This course includes practical laboratory exercises for the application of theoretical knowledge acquired.

**INTE 2440L: Network Fundamentals and Laboratory: 3 Credits**

In this course, students will examine the basic concepts of telecommunications networks, along with the essential components of a network. They will analyze the most commonly used reference models in computer networks. In addition, they will develop skills for designing, implementing, and maintaining communication network connectivity. This course includes practical laboratory exercises for the application of the theoretical knowledge acquired. (*Pre-requisites: PROG 2370L or INTE 1100L*)

**INTE 2460L: Data Communications and Laboratory: 3 credits**

In this course, students will discuss the components of data transfer and transmission. They will differentiate between various communication protocols. They will explain the physical and wireless methods used in data communication. They will discuss communication standards and models. In addition, they will also establish safety rules to improve the quality of communication. (*Pre-requisite: INTE 2440L, ITTE 1031L, PROG 2370L*)

**INTE 2470L: User Support Technician and Laboratory: 3 credits**

In this course, students will apply the user support process and the techniques and skills necessary to provide support and assistance to technology users in various environments. They will execute techniques and strategies for identifying and resolving common hardware, software, and network issues. In addition, they will develop communication and interpersonal skills when interacting with users, handling difficult situations, and managing expectations regarding their entry into and performance within



the technical support services job field. This course includes practical laboratory exercises for the application of theoretical knowledge acquired. *(Pre-requisite: COMP 2010L)*

**INTE 2520L: Web Page Design and Laboratory: 3 credits**

In this course, students will contrast basic concepts of structure design, development, maintenance, and implementation of a webpage or website. Design a webpage or website to integrate multimedia and advanced design elements. The student will also recognize the social responsibility that involves the development and publication of content on a website. *(Pre-requisites: ITTE 1031L)*

**INTE 2570L: Network Administration and Laboratory: 3 credits**

In this course, students will configure and administer network operating systems. They will design and implement group and safety policies for a domain system using Windows Server TM tools. Additionally, they will configure in a web server (IIS) and install servers in the cloud (cloud computing). *(Pre-requisites: INTE 2440L)*

**INTE 2740L: Diagnostic & Maintenance of Computer Systems and Laboratory: 3 Credits**

In this course, students will analyze diagnostic techniques to identify and resolve connectivity, performance, and security issues in computer networks. They will also apply specialized tools and software for monitoring and analyzing network traffic to optimize the performance of devices and services. Additionally, they will examine preventive maintenance practices to ensure the availability and stability of the network infrastructure. *(Pre-requisites: PROG 2370L or INTE 2440L)*

**INTE 2770L: Diagnostic & Maintenance of Computer Systems and Laboratory: 3 Credits**

In this course, students will apply diagnostic techniques to identify and resolve connectivity, performance, and security issues in computer networks. They will also use specialized tools and software for monitoring and analyzing network traffic to optimize device and service performance. Furthermore, they will examine preventive maintenance practices to ensure the

availability and stability of network infrastructure. *(Pre-requisites: INTE 2440L)*

**INTE 3510L: Web Technology and Laboratory: 3 credits**

In this course, students will examine the advanced functions related to website development. Additionally, they will design web pages or sites using PHP codes. They will also create dynamic functions and pages using PHP scripts and integrating MySQL databases that expand the functions and services of a website. *(Pre-requisites: INTE 2520L, PROG 1035, PROG 2370L)*

**INTE 4000L: Information Technology Seminar and Laboratory: 4 credits**

In this course, students will develop a practical project applicable to their area of specialization by integrating the knowledge and skills acquired in their courses. They will also present creative and innovative alternatives for designing and implementing technological solutions to address real challenges in the field of information technology through collaboration in interdisciplinary teams. In addition, they will explain proposals for solving information security problems in business environments. *(Pre-requisite: CISE 2000L, CISE 3000L, CISE 3050L, INAS 1050L, INAS 2050L, INAS 2050L, INAS 3000, INAS 3050L)*

**INTE 4010: Networks Security and Auditing: 3 credits**

In this course, students will analyze techniques and safety and auditing functions of information systems. They will evaluate the vulnerability of physical and wireless information systems. They will analyze the tools available to counter attacks and ensure the continuity of the business. Additionally, they will differentiate between the various methods of computer auditing. *(Pre-requisite: INTE 2440L)*

**INTE 4125L: Introduction to Electronic Commerce and Laboratory: 3 Credits**

In this course students, will analyze the fundamentals and structure of an electronic business (e- business). Explain factors, conditions, and legal aspects when creating an electronic business. Design components of an e-commerce website. Integrate quality standards and security technologies to protect content and

online business transactions. The student will also evaluate the fundamentals and general aspects of electronic commerce (e-commerce) marketing. *(Pre-Requisites: INTE 2520L)*

**INTE 4161P: Information Technology Practice: 4 credits**

In this course, students will implement the skills and knowledge acquired during the time of study through a supervised field experience. They will promote the attitudes required in a real work environment, the skills to work in a team, as well as the ability to keep systems running and program tools that facilitate the company's processes. They will reason ethically and morally when solving problems by demonstrating respect for the laws and environmental conservation in the social context of the globalized world.

*(Pre-requisites: INTE 2570L, INTE 3510L, PROG 3365L, PROG 3375L, PROG 3425L)*

**INTE 4200: Network Technology and Applications Development Integration Seminar: 4 Credits**

In this course students will develop an application with database and webpage using the skills acquired in previous concentration courses. Create a graphic interface (GUI), write the code and design the required database, as well as perform the required standardization tests. The student will also prepare performance and productivity reports of the application and its packaging. *(Pre-requisites: INTE 2570L, INTE 3510L, PROG 1140L, PROG 3365L, PROG 3375L or INTE 2570L, INTE 3510L, PROG 1140L, PROG 3375L)*

**ITNA 1050L: Cloud Network Fundamentals and Laboratory: 3 credits**

In this course, students will develop knowledge of cloud networks, virtualization, cloud computing, and infrastructure as a service. They will also apply skills in configuring and managing networks in cloud environments using tools and services from leading providers to achieve adequate connectivity and security. In addition, they will solve connectivity and performance issues in the cloud through data analysis and the implementation of solutions. *(Pre-requisite: COMP 2080L)*

**ITNA 2050L: Network Administration and Implementation and Laboratory: 3 credits**

In this course, students will develop knowledge in the principles of telecommunication network administration and implementation. They will apply routing, switching, and network segmentation techniques to optimize traffic and enhance performance. Additionally, they will manage network services to generate solutions to common network problems. *(Pre-requisite: INTE 2740L)*

**ITNA 3000: Cloud Network Design and Implementation and Laboratory: 3 credits**

In this course, students will develop knowledge in the design and implementation of cloud networks. They will also examine the basic principles of cloud computing and its relationship with networks, virtualization, scalability, and elasticity. Furthermore, they will use best practices for designing cloud networks, considering aspects such as performance, security, and redundancy. *(Pre-requisite: ITNA 1050L)*

**ITNA 3050: Cloud Computing Administration and Laboratory: 3 credits**

In this course, students will develop knowledge in cloud computing administration, as well as the available service and implementation models in the market. They will apply skills in capacity planning, on-demand resource provisioning, and cloud security policy implementation. In addition, they will examine the legal and regulatory aspects related to data management in the cloud, as well as strategies for risk mitigation and information privacy protection. *(Pre-requisite: COMP 2080L)*

**ITSA 2000L: Introduction to Back-End Development and Laboratory: 3 credits**

In this course, students will develop skills in creating dynamic applications and websites from the server-side (back-end). They will apply techniques for database management and the development of Application Programming Interfaces (APIs) using various runtime environments and database management programs. In addition, they will determine appropriate security processes during the development of dynamic applications and websites. *(Pre-requisite: WADE 1050L)*



**ITSA 2050L: 2050L Web Back-End Development and Laboratory: 4 credits**

In this course, students will develop skills in implementing frameworks for creating robust and scalable web applications. They will design authentication and authorization systems for application and data security. In addition, they will apply techniques for optimizing application performance, maintaining code quality, and integrating with external services. (*Pre-requisite: ITSA 2000L*)

**ITSA 3000L: Database Administration and Laboratory: 3 credits**

In this course, students will develop skills in designing and implementing efficient and secure database systems. They will apply techniques for data modeling and advanced SQL querying, as well as integrating databases with web applications using various technologies. Furthermore, they will manage databases that support the optimal functioning of web applications. (*Pre-requisite: WADE 2050L*)

**ITSA 3050L: Web Application Security and Laboratory: 3 credits**

In this course, students will develop knowledge and skills in identifying and mitigating common vulnerabilities in web application development. They will also implement secure coding practices. In addition, they will apply security techniques to protect web applications against common attacks and security flaws. (*Pre-requisite: PROG 2400L, ITSA 2000L*)

**MATH 2015: Mathematics for Engineering Technology: 3 credits**

In this course, students will employ basic knowledge and skills of algebra, trigonometry, and complex number mathematics in problem-solving in the field of electricity and electronics. They will apply Ohm's and Watt's laws to solve problems involving trigonometric functions. Additionally, students will solve exercises of direct current (DC) and alternating current (AC) circuits, using vectors and phasors applied to three-phase circuits. (*Pre-requisite: MATH 1010*)

**MATH 2050: Applied Mathematics: 3 credits**

In this course, students will analyze different problems and situations encountered in information systems using as a basis the set

theory, propositional logic, and Boolean algebra. Solve combinatorial problems and successions. Also, examine various abstract structures using graphs and trees in order to explain and implement them.

**PROG 1035: Introduction to Computer Programming Logic: 3 Credits**

In this course, students will discuss fundamental concepts for developing a computer program. They will explain how a program operates and the flow of data using flowcharts. They will describe the use of data, variables, and designs focused on objects in programming. They will also develop a graphic interface that integrates various program structures.

**PROG 1035L: Introduction to Computer Programming Logic and Laboratory: 3 Credits**

In this course, students will discuss the fundamental concepts of logical principles underlying computer system programming. Likewise, they will develop skills for identifying logical patterns, problem-solving through logical reasoning, and constructing algorithms. Students will also demonstrate skills in designing and evaluating logic circuits, as well as knowledge of their operation and applications. This course includes practical laboratory exercises for the application of knowledge acquired.

**PROG 1140L: Data Base Design and Laboratory: 3 credits**

In this course students will analyze the concepts of a database (tables, forms, reports, queries) and explain each role in the creation of a database. Design a database, while manipulating data and producing reports. The student will also assess the necessary security measures for an organization. (*Pre-requisite: ITTE 1031L*)

**PROG 2280L: Visual Basic Programming and Laboratory: 3 Credits**

In this course, students will analyze the attributes and functionalities of the Visual Basic programming language for Object-Oriented design. They will develop programs that include creating graphical user interface and programming integration, by applying the diverse control, arrays and files management structures, and integrating database. Additionally, they will plan and design applications based on the specific

needs of the user. *(Pre-requisites: ITTE 1031L; PROG 1035; PROG 1140L)*

**PROG 2370L: Operating Systems and Architecture, and Laboratory: 3 credits**

In this course, students will analyze operating systems and their integration into personal computers and their architecture. Integrate and evaluate the structure, functions, work patterns, and characteristics of different operating systems. Also, outline the configuration, implementation, and management of different platforms, environments, and data retrieval management plans. *(Pre-requisite: ITTE 1031L)*

**PROG 2390L: Introduction to Java Script and Laboratory: 3 Credits**

In this course, students will design control structures (decision and repetition) using the concepts and components of JavaScript. They will identify various existing libraries and frameworks. They will apply programming concepts adapted to JavaScript to create dynamic webpages, integrating HTML and CSS. *(Pre-requisites: PROG 1035, INTE 2520L)*

**PROG 2400L: Scripting Languages and Laboratory: 3 credits**

In this course, the student will develop skills and knowledge for the efficient use of scripting tools for task automation. They will execute the function of scripts for validation and definition of data structures for proper handling. In addition, you will design logic and scripting for configuration automation, program execution, and network (controls) and security administration for the creation of practical solutions in computing contexts and their application in real industry scenarios. This course includes practical laboratory exercises for the application of the acquired knowledge. *(Pre-requisite: PROG 1035L)*

**PROG 2480L: Analysis, Design & Implementation Systems and Laboratory: 3 Credits**

In this course, the student will explain the key concepts in the development and implementation of an information system using the Systems Development Life Cycle process (SDLC). Evaluate different methods and issues important for the

development of an information system, regardless of the type of company that needs it. The student will also develop quality control in the development and implementation of an information system. *(Pre-Requisites: PROG 1140L)*

**PROG 3360L: Python Programming and Laboratory: 3 Credits**

In this course, students will analyze the fundamental concepts of Python Programming. They will apply techniques for data manipulation and management using lists, dictionaries, and other structures for processing and transforming information. In addition, they will design interactive programs, simple web applications, and projects that involve accessing databases and using external Application Programming Interfaces (APIs). This course includes practical laboratory exercises for the application of the acquired knowledge. *(Pre-requisites: PROG 1035 or PROG 1035L)*

**PROG 3365L: C# Programming and Laboratory: 3 Credits**

In this course, students will analyze the attributes and functionalities of the C# programming language for Object-Oriented design. They will develop applications with graphical user interfaces for desktop and Web. In addition, they will integrate a database to a project in C#. *(Pre-requisite: PROG 2280L)*

**PROG 3375L: Object Oriented Programming and Laboratory: 3 credits**

In this course, students will identify Java as a robust programming system and versatile language. Students will learn and master the JAVA platform and language. Create and compile applications and also use graphic applications (IDE). *(Pre-Requisites: PROG 2280L)*

**PROG 3425L: Data Base Management and Laboratory: 3 credits**

In this course, students will design, manage, and provide maintenance to databases created in an SQL environment. Explain the analysis tools used in logical and relational databases in SQL. Describe characteristics of tables, forms of relationship and data modification strategies to

reduce the loss of information in a database. The student will also generate and evaluate information in a database using SQL functions.

*(Pre-Requisite: PROG 1140L)*

**STAT 2000: Introduction to Statistics: 3 credits**

In this course, students will apply descriptive statistics and its key concepts in different professional scenarios. They will analyze several methods for collecting, summarizing, presenting, and interpreting quantitative and categorical data, as well as graphs for grouped and ungrouped data. Likewise, students will explain the nature of probability distribution and its application in practical situations. *(Pre-requisite: MATH 1010)*

**WADE 1000L: Front End Technologies and User Interface (UI) and Laboratory: 3 credits**

In this course, students will develop skills for creating attractive and high-performance interfaces. They will also use front-end programming languages such as HTML, CSS, and JavaScript to design interactive and adaptive user interfaces. Furthermore, they will create appealing and functional designs through a practical, project-based approach. This course includes practical laboratory exercises for the application of theoretical knowledge acquired. *(Pre-requisite: PROG 1035L)*

**WADE 1050L: Web Page Creation and Design and Laboratory: 3 credits**

In this course, students will develop a website using programming languages such as HTML and CSS, among others. They will integrate graphic and multimedia elements into web page design, taking into consideration the user experience (UX). Additionally, they will examine best practices in web design. This course includes practical laboratory exercises for the application of theoretical knowledge acquired. *(Pre-requisite: WADE 1000)*

**WADE 2000L: Content Management Systems (CMS) and Laboratory: 3 credits**

In this course, students will examine the characteristics, structures, tools, and functionalities that facilitate the development and organization of web applications. They will create a web page, taking into account its organization, format, and content. Additionally, they will implement user settings and permissions to efficiently publish content. This course includes practical laboratory exercises to apply the theoretical knowledge acquired. *(Pre-requisite: WADE 1050L)*

**WADE 2050L: Data Structures and Laboratory: 3 credits**

In this course, students will analyze the fundamentals of creating organized and efficient structures for information storage and management. They will employ the Structured Query Language (SQL) syntax for creating, managing, and using relational database structures. Furthermore, they will develop skills in managing and protecting the database to meet project requirements. This course includes practical laboratory exercises for the application of theoretical knowledge acquired. *(Pre-requisite: PROG 1035L)*

***UNDERGRADUATE  
CRIMINAL JUSTICE  
ACADEMIC PROGRAMS***

## Bachelor's Degree in Criminal Justice

### OBJECTIVE

The Bachelor's degree in Criminal Justice trains students in the legal, social, and investigative processes of the criminal justice system, safeguarding the rights of victims, witnesses, suspects, and the accused, as well as the processes of rehabilitation and treatment. Students will apply different interview, interrogation, and court statement techniques, as well as procedures in the investigative, procedural, criminal, ethical, and legal areas, and in fields related to human behavior. Furthermore, students will develop skills in the drafting of reports and management of different types of evidence to be presented before a court of law, in compliance with the due process of law.

### PROGRAM COMPETENCIES

1. Apply theoretical and practical knowledge about the different procedures in the criminal justice field, safeguarding the due process of law.
2. Effectively communicate events and data related to their professional field in written, verbal, and non-verbal manners.
3. Propose solutions for simulated or real events and situations, taking into consideration the nature of the crime through the application of critical and creative thinking, mathematic reasoning, and statistical data analysis.
4. Identify technological means for the research and processing of trustworthy information in a critical, ethical, legal, and systematic manner in their professional performance.
5. Value human experiences and diversity, free of prejudice, with empathy and inclusion when exerting their profession.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

37 Credits in General Education  
9 Credits in Core Courses  
66 Credits in Major Courses  
9 Credits in Electives

### 121 Total Credits

### GENERAL EDUCATION:

ENGL 1010*	Basic English I	3
ENGL 1020	Basic English II	3
ENGL 2050	Conversational English	3
HUMA 1010	Humanities I	3
HUMA 1020	Humanities II	3
ITTE 1031L	Computer Literacy and Laboratory	3
MATH 1010*	Basic Mathematics	3
SEMI 1001*	University Environment Seminar	1
SOSC 1010	Social Sciences I	3
SOSC 1020	Social Sciences II	3
SPAN 1010*	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
SPAN 2040	Writing and Composition	3
		<b>37</b>

### CORE COURSES:

ETHI 1010	Ethics and Professionalism	3
PSYC 2510	Psychology	3
STAT 1500	Statistics for Social Sciences	3
		<b>9</b>

### MAJOR COURSES:

JUST 1000	Introduction to Organization and Administration in Criminal Justice and Public Security	3
JUST 1015	Human and Civil Rights	3
JUST 1025	Fundamentals of Penal Laws	3
JUST 1030	Special Penal Laws	3
JUST 1040	Introduction to Criminology	3
JUST 1050	Evidence	3
JUST 2010	Interview and Interrogation	3
JUST 2020	Rules of Criminal Procedure	3
JUST 2025	Court Testimony	3
JUST 2050	Criminal Investigation	3
JUST 2070	Sign Language	3
JUST 2080	Redaction and Professional Writing In Criminal Justice	3
JUST 2100	Electronic Evidence	3
JUST 3125	Juvenile Justice	3
JUST 3130	Drug Addiction and Rehabilitation	3
JUST 3200	Penology and Correctional System	3

JUST 3610	White Collar Crimes and Fraud Detection	3
PSEC 2000	Leadership, Criminal Justice, and Public Safety	3
PSYC 3010	Emotional Intelligence: Managing Stressful Situations	3
PSYC 3110	Psychological Problems in Children, Adolescents and Adults	3
JUST 4020**	Integrating Seminar in Criminal Justice	
OR		
JUST 4021P	Practice in Criminal Justice	3
JUST 4100	Information Systems Management in Criminal Justice System	3
		<b>66</b>
	<b>DIRECTED ELECTIVES</b>	<b>9</b>
	<b>TOTAL CREDITS</b>	<b>121</b>

**NOTES:**

- \*All general education with an asterisk and all core, major and elective courses must be passed with at least a "C" grade.
- \*\*For online offering.
- Course weeks may vary depending on the program offering, which has a total length of approximately 144 weeks.

## Bachelor's Degree in Criminal Justice with Major in Cyber Crimes

*This program is currently in a teach-out process and is not accepting new students. Reentry may be possible only if a student can complete the program within the teach-out period, subject to approval by the Vice President of Academic Affairs. Contact Academic Affairs department for information on the teach-out date for your program at your location.*

### OBJECTIVE

The Bachelor's program in Criminal Justice with Major in Cyber Crimes trains students with the necessary knowledge, skills, abilities, and techniques to oversee investigations, seizures, collection, analysis and interpretation of digital media, document presentation processes, crime adjudication, and further prosecution of cybercrimes such as fraud, identity theft, cyber terrorism and other cybercrimes committed around the world.

### PROGRAM COMPETENCIES

1. Apply theoretical and practical knowledge about the different procedures and techniques in the criminal justice field, safeguarding the due process of law.
2. Effectively communicate facts and data related to their professional field in written, verbal, or nonverbal form.
3. Solve simulated or real events and situations, considering the nature of the crime through the application of critical and creative thinking, mathematical reasoning, and statistical data analysis.
4. Integrate technological means for research and processing reliable information in a critical, ethical, legal, and systematic manner in their professional performance.
5. Value human experiences and diversity, free of prejudice, with empathy and inclusion when practicing their profession.
6. Analyze cybercrimes, their investigation, and the processes of seizing, collection, analysis, and interpretation of digital media, document presentation, crime adjudication, and further prosecution of

cybercrimes such as fraud, identity theft, cyberterrorism, and other cybercrimes committed around the world.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

37 Credits in General Education  
60 Credits in Core Courses  
18 Credits in Major Courses  
6 Credits in Elective

### 121 Total Credits

### GENERAL EDUCATION:

ENGL 1010*	Basic English I	3
ENGL 1020	Basic English II	3
ENGL 2050	Conversational English	3
HUMA 1010	Humanities I	3
HUMA 1020	Humanities II	3
ITTE 1031L	Computer Literacy and Laboratory	3
MATH 1010*	Basic Mathematics	3
SEMI 1001*	University Environment Seminar	1
SOSC 1010	Social Sciences I	3
SOSC 1020	Social Sciences II	3
SPAN 1010*	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
SPAN 2040	Writing and Composition	3
		<b>37</b>

### CORE COURSES:

ETHI 1010	Ethics and Professionalism	3
JUST 1000	Introduction to the Organization and Administration of the Criminal Justice and Public Safety System	3
JUST 1015	Human and Civil Rights	3
JUST 1025	Fundamentals of Penal Laws	3
JUST 1030	Special Penal Laws	3
JUST 1040	Introduction to Criminology	3
JUST 1050	Evidence	3
JUST 2010	Interview and Interrogation	3
JUST 2020	Rules of Criminal Procedure	3
JUST 2025	Court Testimony	3
JUST 2050	Criminal Investigation	3
JUST 2070	Sign Language	3



JUST 2080	Composition and Professional Writing in Criminal Justice	3
JUST 2100	Electronic Evidence	3
JUST 3125	Juvenile Justice	3
JUST 3610	White Collar Crimes and Fraud Detection	3
JUST 4020	Integration Seminar of Criminal Justice	
OR		
JUST 4021P**	Practice of Criminal Justice	3
PSYC 2510	Psychology	3
PSYC 3010	Emotional Intelligence: Managing Stressful Situations	3
STAT 1500	Statistics for Social Sciences	3
		<b>60</b>

#### **MAJOR COURSES:**

JUST 3120	Federal Jurisdiction	3
CYCR 4010	Cyber Crimes: Operating Systems and Architecture, and Lab	3
CYCR 4015	Cyber Terrorism	3
CYCR 4020	Applicable Law to Cyber Crimes	3
CYCR 4040	Introduction to Cyber Crimes	3
CYRC 4055	Computer Forensics	3
		<b>18</b>

<b>DIRECTED ELECTIVES</b>	<b>6</b>
<b>TOTAL CREDITS</b>	<b>121</b>

#### **NOTES:**

- \*All general education courses with an asterisk and all core, major and elective courses must be passed with at least a "C" grade.
- \*\* \*Students enrolled in the on ground modality must take the JUST 4021P-Practice of Criminal Justice course. Students enrolled in the full online modality program must take the IJUST 4020-Integration Seminar of Criminal Justice course.
- This program will be offered through the on ground and online delivery mode.
- Course weeks may vary depending on the program offering, which has a total length of approximately 144 weeks.

# Bachelor's Degree in Criminal Justice with Major in Forensic Investigation

## OBJECTIVE

The Bachelor's program in Criminal Justice with Major in Forensic Investigation trains students with the necessary knowledge, techniques, and skills for the criminal investigation process inside a crime laboratory through the application of investigation techniques in crime scenes, maintaining records, collecting, packaging, and preserving evidence for the purpose of reconstructing scenes, and analyzing physical evidence to prove the perpetrator's guilt.

## PROGRAM COMPETENCIES

1. Apply theoretical and practical knowledge about the different procedures and techniques in the criminal justice field, safeguarding the due process of law.
2. Effectively communicate facts and data related to their professional field in written, verbal, or nonverbal form.
3. Solve simulated or real events and situations, considering the nature of the crime through the application of critical and creative thinking, mathematical reasoning, and statistical data analysis.
4. Integrate technological means for research and processing reliable information in a critical, ethical, legal, and systematic manner in their professional performance.
5. Value human experiences and diversity, free of prejudice, with empathy and inclusion when practicing their profession.
6. Examine the criminal investigation process, techniques, and skills necessary in a crime laboratory by applying crime scene investigation techniques, record keeping, collection, packaging, and preservation for scene reconstruction and physical evidence analysis in order to prove the guilt of the perpetrator.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

37 Credits in General Education  
60Credits in Core Courses  
18 Credits in Major Courses  
6 Credits in Elective

## 121 Total Credits

## GENERAL EDUCATION:

ENGL 1010*	Basic English I	3
ENGL 1020	Basic English II	3
ENGL 2050	Conversational English	3
HUMA 1010	Humanities I	3
HUMA 1020	Humanities II	3
ITTE 1031L	Computer Literacy and Laboratory	3
MATH 1010*	Basic Mathematics	3
SEMI 1001*	University Environment Seminar	1
SOSC 1010	Social Sciences I	3
SOSC 1020	Social Sciences II	3
SPAN 1010*	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
SPAN 2040	Writing and Composition	3
		<b>37</b>

## CORE COURSES:

ETHI 1010	Ethics and Professionalism	3
JUST 1000	Introduction to the Organization and Administration of the Criminal Justice and Public Safety System	3
JUST 1015	Human and Civil Rights	3
JUST 1025	Fundamentals of Penal Laws	3
JUST 1030	Special Penal Laws	3
JUST 1040	Introduction to Criminology	3
JUST 1050	Evidence	3
JUST 2010	Interview and Interrogation	3
JUST 2020	Rules of Criminal Procedure	3
JUST 2025	Court Testimony	3
JUST 2050	Criminal Investigation	3
JUST 2070	Sign Language	3
JUST 2080	Composition and Professional Writing in Criminal Justice	3
JUST 2100	Electronic Evidence	3
JUST 3125	Juvenile Justice	3
JUST 3610	White Collar Crimes and Fraud Detection	3
JUST 4020	Integration Seminar of Criminal Justice	
OR		

JUST 4021P**Practice of Criminal Justice	3
PSYC 2510 Psychology	3
PSYC 3010 Emotional Intelligence: Managing Stressful Situations	3
STAT 1500 Statistics for Social Sciences	3
	<b>60</b>

**MAJOR COURSES:**

FOIN 1010 Introduction to Forensic Investigation	3
FOIN 2020 Forensic Photography	3
FOIN 2030 Collection and Analysis of Physical Evidence	3
FOIN 3030 Forensic Firearm Examination	3
FOIN 3040 Crime Scene Processing	3
FOIN 3050 Research and Analysis of Post Mortem Examinations	3
	<b>18</b>

**DIRECTED ELECTIVES** **6**

**TOTAL CREDITS** **121**

**NOTES:**

- \*All general education courses with an asterisk and all core, major and elective courses must be passed with at least a "C" grade.
- \*\*Students enrolled in the on ground modality must take the JUST 4021P-Practice of Criminal Justice course. Students enrolled in the full online modality program must take the IJUST 4020-Integration Seminar of Criminal Justice course.
- This program will be offered through the on ground and online delivery mode.
- Course weeks may vary depending on the program offering, which has a total length of approximately 144 weeks.

## Bachelor's Degree in Criminal Justice with Major in Homeland Security

### OBJECTIVE

The Bachelor's program in Criminal Justice with Major in Homeland Security prepares students with theoretical and practical knowledge of homeland security policy, focusing on all the planning and operations aimed at protecting the United States and its territories from external threats. In addition, students will be trained on the operational components and infrastructure used to offer intelligence services, customs and border protection, security and technological communications, planning and operations in threat scenarios of natural or man-made disasters, in order to preserve the integrity of the economic system and protect all citizens.

### PROGRAM COMPETENCIES

1. Apply theoretical and practical knowledge about the different procedures and techniques in the criminal justice field, safeguarding the due process of law.
2. Effectively communicate facts and data related to their professional field in written, verbal, or nonverbal form.
3. Solve simulated or real events and situations, considering the nature of the crime through the application of critical and creative thinking, mathematical reasoning, and statistical data analysis.
4. Integrate technological means for research and processing reliable information in a critical, ethical, legal, and systematic manner in their professional performance.
5. Value human experiences and diversity, free of prejudice, with empathy and inclusion when practicing their profession.
6. Analyze homeland security policy in regards to planning and operations aimed at protecting the United States and its territories from external threats, the operational components and infrastructure dedicated to providing intelligence services, customs and border protection, security and technological communications, and planning and operations in threat scenarios and natural

or man-made disasters preserving the integrity of the economic system and protecting citizens.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via online delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

37 Credits in General Education

60 Credits in Core Courses

18 Credits in Major Courses

6 Credits in Elective

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**121 Total Credits**

### GENERAL EDUCATION:

ENGL 1010*	Basic English I	3
ENGL 1020	Basic English II	3
ENGL 2050	Conversational English	3
HUMA 1010	Humanities I	3
HUMA 1020	Humanities II	3
ITTE 1031L	Computer Literacy and Laboratory	3
MATH 1010*	Basic Mathematics	3
SEMI 1001*	University Environment Seminar	1
SOSC 1010	Social Sciences I	3
SOSC 1020	Social Sciences II	3
SPAN 1010*	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
SPAN 2040	Writing and Composition	3
		<b>37</b>

### CORE COURSES:

ETHI 1010	Ethics and Professionalism	3
JUST 1000	Introduction to the Organization and Administration of the Criminal Justice and Public Safety System	3
JUST 1015	Human and Civil Rights	3
JUST 1025	Fundamentals of Penal Laws	3
JUST 1030	Special Penal Laws	3
JUST 1040	Introduction to Criminology	3
JUST 1050	Evidence	3
JUST 2010	Interview and Interrogation	3
JUST 2020	Rules of Criminal Procedure	3
JUST 2025	Court Testimony	3
JUST 2050	Criminal Investigation	3

JUST 2070	Sign Language	3
JUST 2080	Composition and Professional Writing in Criminal Justice	3
JUST 2100	Electronic Evidence	3
JUST 3125	Juvenile Justice	3
JUST 3610	White Collar Crimes and Fraud Detection	3
JUST 4020	Integration Seminar of Criminal Justice	3
PSYC 3010	Emotional Intelligence: Managing Stressful Situations	3
PSYC 2510	Psychology	3
STAT 1500	Statistics for Social Sciences	
		<b>60</b>
<b>MAJOR COURSES:</b>		
JUST 3120	Federal Jurisdiction	3
HOSE 1010	Forensic Psychology	3
HOSE 3010	Homeland Security and Operational Components	3
HOSE 3040	Terrorism	3
HOSE 4015	Federal Emergency Management	3
HOSE 4060	Cyber Security	3
		<b>18</b>
<b>DIRECTED ELECTIVES</b>		<b>6</b>
<b>TOTAL CREDITS</b>		<b>121</b>

**NOTES:**

- \*All general education courses with an asterisk and all core, major and elective courses must be passed with at least a "C" grade.
- Program offered only online.
- Course weeks may vary depending on the program offering, which has a total length of approximately 144 weeks.

## Bachelor's Degree in Criminal Justice with Major in Human Services

*This program is currently in a teach-out process and is not accepting new students. Reentry may be possible only if a student can complete the program within the teach-out period, subject to approval by the Vice President of Academic Affairs. Contact Academic Affairs department for information on the teach-out date for your program at your location.*

### OBJECTIVE

The Bachelor's program in Criminal Justice with Major in Human Services prepares students with the necessary knowledge, skills and abilities to provide services to vulnerable populations such as crime victims, controlled substances users, juvenile offenders and members of the correctional population in a variety of institutional and community contexts in the criminal justice system, in order to achieve social readaptation.

### PROGRAM COMPETENCIES

1. Apply theoretical and practical knowledge about the different services available to vulnerable populations within the criminal justice system.
2. Effectively communicate facts and data related to their professional field in written, verbal, or nonverbal form.
3. Solve simulated or real events and situations, considering the needs of vulnerable populations through the application of critical and creative thinking, mathematical reasoning, and statistical data analysis.
4. Integrate technological means for research and processing reliable information in a critical, ethical, legal, and systematic manner in their professional performance.
5. Value human experiences and diversity, free of prejudice, with empathy and inclusion when practicing their profession.
6. Evaluate the services available to vulnerable populations, such as victims of crime, users of controlled substances, juvenile offenders, and members of the correctional population in various institutional and community settings within the criminal justice system to achieve social

readaptation.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

37 Credits in General Education

60 Credits in Core Courses

18 Credits in Major Courses

6 Credits in Elective

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**121 Total Credits**

### GENERAL EDUCATION:

ENGL 1010*	Basic English I	3
ENGL 1020	Basic English II	3
ENGL 2050	Conversational English	3
HUMA 1010	Humanities I	3
HUMA 1020	Humanities II	3
ITTE 1031L	Computer Literacy and Laboratory	3
MATH 1010*	Basic Mathematics	3
SEMI 1001*	University Environment Seminar	1
SOSC 1010	Social Sciences I	3
SOSC 1020	Social Sciences II	3
SPAN 1010*	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
SPAN 2040	Writing and Composition	3
		<b>37</b>

### CORE COURSES:

ETHI 1010	Ethics and Professionalism	3
JUST 1000	Introduction to the Organization and Administration of the Criminal Justice and Public Safety System	3
JUST 1015	Human and Civil Rights	3
JUST 1025	Fundamentals of Penal Laws	3
JUST 1030	Special Penal Laws	3
JUST 1040	Introduction to Criminology	3
JUST 1050	Evidence	3
JUST 2010	Interview and Interrogation	3
JUST 2020	Rules of Criminal Procedure	3
JUST 2025	Court Testimony	3
JUST 2050	Criminal Investigation	3
JUST 2070	Sign Language	3
JUST 2080	Composition and Professional Writing in	

	Criminal Justice	3
JUST 2100	Electronic Evidence	3
JUST 3125	Juvenile Justice	3
JUST 3610	White Collar Crimes and Fraud Detection	3
JUST 4020	Integration Seminar of Criminal Justice	3
PSYC 2510	Psychology	3
PSYC 3010	Emotional Intelligence: Managing Stressful Situations	3
STAT 1500	Statistics for Social Sciences	3
		<b>60</b>

#### **MAJOR COURSES:**

HUSE 1010	Drug Addiction and Legal-Ethical Aspects	3
HUSE 2020	Young Offenders	3
HUSE 2030	Services in Correctional Institutions and Rehabilitation	3
HUSE 4015	Services for Domestic Violence Victims and other Crimes	3
HUSE 4060	Restorative Justice	3
JUST 2035	Crime Victims	3
		<b>18</b>

<b>DIRECTED ELECTIVES</b>	<b>6</b>
<b>TOTAL CREDITS</b>	<b>121</b>

#### **NOTES:**

- \*All general education courses with an asterisk and all core, major and elective courses must be passed with at least a "C" grade.
- Program offered only online.
- Course weeks may vary depending on the program offering, which has a total length of approximately 144 weeks.



# Associate's Degree in Criminal Justice

## OBJECTIVE

The Associate's Degree in Criminal Justice trains students in legal, social, and investigative processes, safeguarding the rights of victims, witnesses, suspects, and the accused. Furthermore, students will develop the skills to apply procedures and different methods in investigative, procedural, criminal, ethical, and legal areas, as well as other fields related to human behavior.

## PROGRAM COMPETENCIES

1. Apply theoretical and practical knowledge about the different procedures in the criminal justice field, safeguarding the due process of law.
2. Effectively communicate events and data related to their professional field in written, verbal, and non-verbal manners.
3. Propose solutions for simulated or real events and situations, taking into consideration the nature of the crime through the application of critical and creative thinking, mathematic reasoning, and statistical data analysis.
4. Identify technological means for the research and processing of trustworthy information in a critical, ethical, legal, and systematic manner in their professional performance.
5. Value human experiences and diversity, free of prejudice, with empathy and inclusion when carrying out their profession.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

25 Credits in General Education  
9 Credits in Core Courses  
36 Credits in Major Courses

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**70 Total Credits**

## GENERAL EDUCATION

ENGL 1010*	Basic English I	3
ENGL 1020	Basic English II	3
ENGL 2050	Conversational English	3
ITTE 1031L	Computer Literacy and Laboratory	3
MATH 1010*	Basic Mathematics	3
SEMI 1001*	University Environment Seminar	1
SOSC 1010	Social Sciences I	3
SPAN 1010*	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
		<b>25</b>

## CORE COURSES:

ETHI 1010	Ethics and Professionalism	3
PSYC 2510	Psychology	3
STAT 1500	Statistics for Social Sciences	3
		<b>9</b>

## MAJOR COURSES:

JUST 1000	Introduction to Organization and Administration in Criminal Justice and Public Security	3
JUST 1015	Human and Civil Rights	3
JUST 1025	Fundamentals of Penal Laws	3
JUST 1030	Special Penal Laws	3
JUST 1040	Introduction to Criminology	3
JUST 1050	Evidence	3
JUST 2010	Interview and Interrogation	3
JUST 2020	Rules of Criminal Procedure	3
JUST 2025	Court Testimony	3
JUST 2050	Criminal Investigation	3
JUST 2070	Sign Language	3
JUST 2080	Redaction and Professional Writing In Criminal Justice	3
		<b>36</b>
		<b>70</b>

## TOTAL CREDITS

## NOTES:

- \*All general education with an asterisk and all core and major courses must be passed with at least a "C" grade.
- Course weeks may vary depending on the program offering, which has a total length of approximately 80 weeks.

## Associate's Degree Leadership in Public Security

### OBJECTIVE

The Associate's Degree in Leadership in Public Security program equips students to make decisions and integrate the various areas that comprise public safety and the criminal justice system. Graduates of this program will be able to apply the knowledge related to the investigation, processes, and policies for managing emergency situations as first responders. In addition, they will employ individual and collaborative work skills for solving problems ethically and with compassion, as established in the basic level of their profession.

### PROGRAM COMPETENCIES

1. Apply theoretical and practical knowledge into their professional performance as civil servants and first responders.
2. Propose solutions to simulated or real incidents or situations taking into account the nature of the situation, while applying critical and creative thinking, mathematical reasoning, and analysis of statistical data.
3. Communicate ideas assertively and efficiently, in an oral and written manner, while performing as civil servants and first responders.
4. Identify technological resources to search and process reliable information in a critical, ethical, legal, and systematic manner in their professional performance.
5. Demonstrate individual and collaborative work skills with a high degree of responsibility, compliance with the law, and ethical judgement, in an empathetic, inclusive, and unprejudiced manner, while performing their duties as first responders.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground and online delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

22 Credits in General Education

6 Credits in Core Courses

30 Credits in Major Courses

3 Credits in Elective Courses

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**61 Total Credits**

### GENERAL EDUCATION

ENGL 1010*	Basic English I	3
ENGL 1020	Basic English II	3
ITTE 1031L	Computer Literacy and Laboratory	3
MATH 1010*	Basic Mathematics	3
SEMI 1001*	University Environment Seminar	1
SOSC 1010	Social Sciences I	3
SPAN 1010*	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
		<b>22</b>

### CORE COURSES:

ETHI 1010	Ethics and Professionalism	3
PSYC 2510	Psychology	3
		<b>6</b>

### MAJOR COURSES:

JUST 1000	Introduction to the Organization and Administration of the Criminal Justice and Public Safety System	3
JUST 1015	Human and Civil Rights	3
JUST 1025	Fundamentals of Penal Laws	3
JUST 1030	Special Penal Laws	3
JUST 1050	Evidence	3
JUST 2020	Rules of Criminal Procedure	3
HEED 1500	First Aid	3
PSEC 2000	Leadership, Criminal Justice, and Public Safety	3
PSEC 2010	Conscience and Reach in Self Defense	3
PSEC 2020	Basic Emergency Management	3
		<b>30</b>

### DIRECTED ELECTIVE

**TOTAL CREDITS 61**

### NOTES:

- \*All general education with an asterisk and all core and major courses must be passed with at least a "C" grade.
- Course weeks may vary depending on the program offering, which has a total length of approximately 80 weeks.

***UNDERGRADUATE  
CRIMINAL JUSTICE  
COURSE DESCRIPTIONS***

**CYCR 4010: Cyber Crimes: Operating Systems and Architecture: 3 credits**

In this course, the student will analyze operating systems and their integration into personal computers as well as its architecture. The student will integrate and evaluate the structure, functions, work modalities, and characteristics of different operating systems. Furthermore, the student will also design the implementation, configuration, and management of different environments, platforms, and the management plan for data recovery. (*Pre-requisites: ITTE 1031L*)

**CYCR 4015: Cyber Terrorism: 3 credits**

In this course, students will analyze the historical development of cyberterrorism and the theories of cybercrime and cyberterrorism. Furthermore, they will examine the types of crimes and terrorist acts committed using computer networks, theories on computer hackers and other cybercriminals, as well as investigative and legal strategies aimed at these criminal acts. They will also evaluate the divide between the criminal justice system and the technical issues that arise while investigating cybercrimes.

**CYCR 4020: Applicable Law to Cyber Crimes: 3 credits**

In this course, students will analyze cases of cybercrimes classified in the United States and Puerto Rico along with their consequences and processing in the federal jurisdiction, in addition to legislation and jurisprudence. Additionally, they will discuss the general fundamentals, infrastructure, technological challenges, and legal aspects of cyberattacks. They will also develop research topics and tools for the collection of data or evidence that contribute to the future of cybercrime investigation. (*Pre-requisites: CYCR 4010*)

**CYCR 4040: Introduction to Cyber Crimes: 3 credits**

In this course, the student will discuss the basics of cyber-crimes, cyber-criminal profile, methods and mechanisms to commit cybercrimes, and the classification of cyber-crimes. Also, evaluate and discuss the methods used to commit identity theft, organized crime, and terrorism. In addition, the student will distinguish the importance of computer forensics at present and explain the

process for the search and seizure of computer evidence.

**CYCR 4055: Computer Forensics: 3 credits**

In this course, students will analyze the fundamentals of computer forensics, the processes followed during investigations and the collection of digital evidence. They will also evaluate legal issues reflected in cases, situations in digital crimes scenes, and digital evidence as an investigation method. Additionally, they will examine the evidence validation tools, including image applications, digital evidence in Windows and Unix/Linux systems, as well as social media and internet browsers.

**FOIN 1010: Introduction to Forensic Investigation: 3 credits**

In this course, students will examine the principles, basic concepts, and historical evolution of forensic investigation. They will also analyze methods, procedures, techniques, and types of evidence in the study of forensic investigation scenes. Furthermore, students will evaluate the forensic investigator role from a scientific, ethical, and legal perspective.

**FOIN 2020: Forensic Photography: 3 credits**

In this course, students will examine the historical and technological development of forensic photography, the process of digital photography, and the equipment used by the forensic photographer. Additionally, they will analyze the technical work of the forensic photographer and the importance of the investigator in a crime scene and during the legal process. Students will also justify the use of photography in the process of identifying evidence and its importance in criminal proceedings. (*Pre-requisite: FOIN 1010*)

**FOIN 2030: Collection and Analysis of Physical Evidence: 3 credits**

In this course, students will evaluate the physical evidence in a forensic investigation, as well as the proper procedures for its conservation and protection. In addition, they will differentiate the appropriate techniques used for performing a presumptive blood test and for collecting and preserving blood samples. They will contrast types of fingerprints and their patterns, the techniques used for their detection and

identification, and the transfer process during fingerprint collection. (*Pre-requisite: FOIN 1010*)

**FOIN 3030: Forensic Firearm Examination: 3 credits**

In this course, students will examine the principles, basic concepts, and historical development of firearms. They will analyze the methods, procedures, and techniques used in the study of firearms in order to solve a crime. Students will also evaluate the role of the firearms examiner from a scientific, ethical, and legal perspective.

**FOIN 3040: Crime Scene Processing: 3 credits**

In this course, students will analyze the measures used to process a crime scene. They will also identify the techniques used to search for and find evidence in a crime scene. Additionally, they will discuss the requirements for obtaining a search warrant. (*Pre-requisite: FOIN 1010*)

**FOIN 3050: Research and Analysis of Post Mortem Examinations: 3 credits**

In this course, students will analyze the process of death of a human being, its various types, and the characteristics that allow for establishing the time of death. They will evaluate different traumatic deaths, such as basic traumas, deaths due to traffic accidents, and deaths caused by fire. Furthermore, students will describe different types of traumas present in a corpse and the importance of this identification in the scene reconstruction processes. (*Pre-requisite: FOIN 1010*)

**ETHI 1010: Ethics and Professionalism: 3 credits**

In this course, students will analyze the fundamental concepts of professional ethics and their importance in work settings. They will evaluate the role of ethics in human relations and interactions, while considering the values, morals, and virtues dictated by society. Likewise, students will examine the aspects that an ethical professional should know in the workplace, in terms of politics, diversity, responsibility, interpersonal relationships, human resources, effective communication, conflict management and negotiation, among others.

**HEED 1500: First Aid: 3 credits**

In this course, students will compile information on techniques employed for the immediate care of a person in a medical emergency situation for the prevention of harm or death. Additionally, they will demonstrate appropriate intervention for fractures, intoxication, animal stings or bites, and burns, among other situations that require first aid because of an accident or external situation. Moreover, they will explain the status of the victim for the application of appropriate cardiopulmonary resuscitation techniques in case of shock.

**HOSE 1010: Forensic Psychology: 3 credits**

In this course, students will analyze the historical and conceptual development of forensic psychology. They will also examine the creation of psychological profiles, the use of interrogation techniques, and the mechanisms used for determining the mental capacity or incapacity of the accused in the criminal justice system. Furthermore, students will research relevant topics related to scientific findings in this discipline and its implications.

**HOSE 3010: Homeland Security and Operational Components: 3 credits**

In this course, students will analyze the concept of national security, its historical development, the functions of its operational and supporting components, as well as other elements that make up the Department of Homeland Security, which is responsible for protecting the nation against terrorist attacks, immigration, natural or manmade disasters, transportation, maritime protection, fraud, forgery, and cybersecurity. Additionally, students will examine the mission, vision, values, organizational structures, goals, strategic objectives, functions, professional careers, and other elements associated to each one of the operational components that make up the United States Department of Homeland Security.

**HOSE 3040: Terrorism: 3 credits**

In this course, students will analyze the historical context, concepts, and ideas of terrorist movements, as well as their repercussions in the world. They will examine the classifications, manifestations, and geographic reach of terrorism, and the financing and communication means to achieve its objectives. Additionally, they

will evaluate the universal legal framework against terrorism and the national security policy of the United States federal government.

#### **HOSE 4015: Federal Emergency**

##### **Management: 3 credits**

In this course, students will analyze the fundamental concepts, historical development, and principles of emergency management. Additionally, they will examine the essential bases, plans of operations, and response coordination in emergency management. They will evaluate the functions of the emergency management program, as well as the processes for planning and recovery in emergency situations. *(Pre-requisite: HOSE 3010)*

#### **HOSE 4060: Cyber Security: 3 credits**

In this course, students will analyze concepts related to cybersecurity, its historical development, evolution, and the techniques used to reduce cyberattacks. Students will research the legal consequences involved in this type of criminal activity. Additionally, they will discuss the areas of cybersecurity and their current policies in society. *(Pre-requisite: HOSE 2020 or HOSE 3010, ITTE 1031L)*

#### **HUSE 1010: Drug Addiction and Legal-Ethical Aspects: 3 credits**

In this course, students will examine concepts associated with the use and consumption of psychoactive substances. They will identify the factors, consumption risks, and individual and collateral effects of the use of substances from the current theoretical perspectives that address addiction. They will also evaluate, from the legal-ethical construct, resources and services for prevention, as well as the help available for the social reintegration of individuals with problematic use of substances. *(Pre-requisite: JUST 3000 or JUST 1015)*

#### **HUSE 2020: Young Offenders: 3 credits**

In this course, students will analyze the conceptual framework, the criminogenic factors that influence juvenile delinquency, and the psychosocial problems that young offenders face. They will examine the psychological factors that cause juvenile delinquency, the profile of a young offender in Puerto Rico, and the difference between juvenile delinquency and adult crime. They will evaluate prevention programs for at-risk

youth, the rights of young offenders in correctional institutions, and the services offered to them. *(Pre-requisite: JUST 3000 or JUST 1015)*

#### **HUSE 2030: Services in Correctional Institutions and Rehabilitation: 3 credits**

In this course, students will analyze the conceptual framework and legal aspects concerning the process of a prisoner's rehabilitation and social reintegration. They will explain the fundamental rights of prisoners, both in Puerto Rico and the United States, as well as the laws, jurisprudence, and regulations related to treatments leading to rehabilitation. Likewise, students will examine the service programs offered by correctional institutions for the treatment, rehabilitation, and social reinsertion of the prisoner population. *(Pre-requisite: JUST 3000 or JUST 1015)*

#### **HUSE 4015: Services for Domestic Violence Victims and Other Crimes: 3 credits**

In this course, students will connect the theoretical and conceptual framework of domestic violence and other crimes, their variations, and the cycle of domestic violence that victims face. They will also explain the laws and rights of the victims and their families in Puerto Rico and the United States, as well as the impact of crime on their lives. Furthermore, students will evaluate the criminal justice system factors that impact revictimization, and the services available for victims of crime and domestic violence and their family members. *(Pre-requisite: JUST 2035)*

#### **HUSE 4060: Restorative Justice: 3 credits**

In this course, students will analyze the historical development, concepts, and foundations of restorative justice as a systematic response to crime in the penal justice field. They will examine the role of restorative justice elements and processes integrated into the criminal justice systems in Puerto Rico and around the world. Students will value the elements used in restorative programs and their projection in the future.

In this course, the student will differentiate between concepts that are related to restorative justice, its historical development and theories as a systematic response to crime within the scope of criminal justice. The student will distinguish the foundations, characteristics or central values that



explain restorative justice. The student will also compare the mechanisms used in restorative programs, as well as the future of restorative justice. (*Pre-requisite: JUST 3000 or JUST 1015*)

**JUST 1000: Introduction to the Organization and Administration of the Criminal Justice and Public Safety System: 3 credits**

In this course, students will discuss the structure, organization, and administration of the criminal justice and public safety system in Puerto Rico. They will analyze the roles of the components of these systems and their effectiveness regarding the application of laws and penalties. They will also evaluate the public policy concerning social order and crime prevention. Additionally, they will examine the Constitution of the Commonwealth of Puerto Rico, as well as the powers of the State.

**JUST 1015: Human and Civil Rights: 3 credits**

In this course, students will identify due process and the equal protection of the law. Additionally, they will distinguish protections identified as civil rights, according to the content of the laws and jurisprudence. Likewise, students will examine the international experience regarding the acknowledgment of human rights in order to recognize its evolution, preparing to anticipate changes in the future.

**JUST 1025: Fundamentals of Penal Laws: 3 credits**

In this course, students will examine the general principles of criminal law and the authority of the State for the creation, changes, or removal of crimes. Additionally, they will analyze the fundamental rights recognized for citizens who are facing criminal proceedings against them, stressing the applicable protections during the investigative stage. Students will likewise evaluate the present crimes in our legal system, forms of guilt, the available defense, the consequences of crimes, and court discretion during the process of imposing penalties.

**JUST 1030: Special Penal Laws: 3 credits**

In this course, students will analyze the foundations and principles for establishing special criminal laws. They will describe special criminal laws and their relationship to the operation of the

Criminal Justice System. Additionally, they will explain the jurisprudence wherever special criminal laws have been applied.

**JUST 1040: Introduction to Criminology: 3 credits**

In this course, students will examine basic concepts of criminology. They will analyze the historical background, evolution, and vision of crime, as well as some auxiliary sciences for the study of criminology. Students will compare criminology approaches, models, and theories concerning deviant behavior from a biopsychosocial perspective.

**JUST 1050: Evidence: 3 credits**

In this course, students will examine the requirements established by the criminal justice system for admitting or rejecting compiled evidence based on due process of law. Additionally, they will determine the existing types of evidence, the process of challenging a witness, the sufficiency of the required evidence, and the existing limitations in the search for truth. Students will likewise evaluate instances in which new evidence may emerge during the post-sentencing stage and its subsequent procedural implications when requesting another trial.

(*Pre-requisites: JUST 1010 or JUST 1000*)

**JUST 2010: Interview and Interrogation: 3 credits**

In this course, students will examine current concepts related to interviewing and interrogation techniques, as well as the characteristics that the interviewer should have. In addition, they will analyze different interviewing techniques, taking into consideration psychological, ethical, scientific, and legal aspects, among others. Moreover, they will assess the importance of the interview and interrogation as the main investigative tool to obtain information for solving a crime.

(*Pre-requisites: JUST 1015*)

**JUST 2020: Rules of Criminal Procedure: 3 credits**

In this course, students will analyze the rights of the defendant, from the investigative stage through the culmination of the criminal proceedings. They will evaluate the applicable criteria during the determination of probable cause to make an arrest, the bail order, the



preliminary hearing, the trial and the judgement. Additionally, students will examine the different resources available for an individual convicted of a criminal offence in the post-sentencing stage of the criminal proceedings.

*(Pre-requisite: JUST 1050)*

### **JUST 2025: Court Testimony: 3 credits**

In this course, students will discuss the conceptual framework of both civil and criminal procedures in regard to the expert witness figure. Additionally, they will evaluate the historical background of witnesses and the development of the expert witness skills in the legal setting. Moreover, they will examine procedural regulations regarding the use of experts. Likewise, they will analyze the use of expert evidence in criminal proceedings. *(Pre-requisite: JUST 2010)*

### **JUST 2035: Crime Victims: 3 credits**

In this course, students will examine the concepts and theoretical aspects of victimology, as well as the different types of victims. They will analyze the personal and social impact faced by victims, their traumas and aftermaths, victimization by the penal system and social justice, and their rights. Additionally, students will apply tools and skills for professional case handling, aiming to see a change from a punitive vision to a humanistic one.

### **JUST 2050: Criminal Investigation: 3 credits**

In this course, students will examine fundamental aspects of criminal investigations, its historical development, and its leading figures. They will evaluate current investigation techniques and their applicability at different stages of the investigative process, as well as the importance of the auxiliary sciences. They will apply the methodology of preservation, management, and investigation of the crime scene. Moreover, they will analyze different types of crime and its processes, ranging from arrests to post-sentencing procedures. *(Pre-requisites: JUST 1050, 2010, 2020)*

### **JUST 2070: Sign Language: 3 credits**

In this course, students will analyze the anatomy and physiology of the human ear while focusing on the various types of hearing loss and their effects on the communication process. They will

distinguish the idiosyncrasy of the deaf community through the study of important aspects related to pragmatics in the management of the deaf patient. Students will apply effective communication techniques and basic knowledge of signs in diverse languages for deaf people (movement, position and location of the hands, gestures and conceptual framework). Also, they will interpret the laws that protect people with hearing disabilities and their impact in the development of basic skills directed towards the Public Safety and Criminal Justice System professionals.

### **JUST 2080: Composition and Professional Writing in Criminal Justice: 3 credits**

In this course, students will develop the necessary tools and resources to write professional administrative reports and conduct research in the field of criminal justice. They will also analyze the importance and the different types of written reports used in the field of criminal justice. Furthermore, they will produce a variety of reports related to criminal justice through effective, correct, concise, and precise writing.

### **JUST 2100: Electronic Evidence: 3 credits**

In this course, students will analyze the conceptual framework of electronic evidence and the elements related to technology and the authentication of evidence. They will explain the methodology and the procedures associated with the acquisition, authentication, and admissibility of e-mails, text messages, digital files, photographs, internet pages, social networks, GPS, and drones, so that this kind of evidence may be admissible in court, according to the rules of evidence. Additionally, students will examine what is established in the rules of evidence regarding the proof of reference, its exceptions, and other elements related to electronic evidence. Likewise, they will identify examples of electronic evidence and the rights that protect all citizens. Lastly, they will interpret the jurisprudence related to electronic evidence.

### **JUST 2200: Comparative Law: 3 credits**

In this course, students will examine the methodology of comparative law for the study of legal systems in other jurisdictions. They will analyze the differences, similarities, and responsibilities of the components of the criminal

justice system related to common and civil law. Additionally, students will apply comparative law methodology when contrasting different justice systems with that of Puerto Rico.

**JUST 3100: Conflict Mediation: 3 credits (elective course)**

In this course, students will explain mediation as an alternative method of conflict resolution. In addition, they will evaluate conflict theories, mediation models and the ethical-moral aspects of the professional in the negotiation process. They will also analyze the roles of the mediator, in accordance with the current laws and alternative methods in the judicial system for conflict resolution.

**JUST 3110: Gender and the Criminal Justice Systems: 3 credits (elective course)**

In this course, students will analyze the fundamental concepts and the historical evolution of women as the offender, as well as the biopsychosocial factors at play on their behavior as criminals in the Criminal Justice System. In addition, they will evaluate the contributions of theoretical approaches on female crime and victimization. They will propose alternatives for the rehabilitation and social reintegration of women in penal institutions based on the analysis of the types of crimes, the factors and motives for female delinquency. Likewise, they will justify the importance of implementing treatment and rehabilitation programs and services in penitentiary institutions for women.

**JUST 3120: Federal Jurisdiction: 3 credits**

In this course, students will examine the historical development and structural organization of the federal jurisdiction. In addition, they will analyze the criminal procedure under the federal jurisdiction and the limits of said jurisdiction, as well as the agencies that make up the justice system under the federal jurisdiction. Likewise, they will evaluate the federal system, the central government, and the relations between the states and territories. (*Pre-requisites: JUST 1010 or JUST 1000*)

**JUST 3125: Juvenile Justice: 3 credits**

In this course, students will examine the causes of juvenile delinquency, as well as the sociological, biological, and psychological factors

of criminal behavior. They will analyze the rehabilitative nature of juvenile justice, the legal framework, the balance between treatment and punishment, deviant juvenile behavior, and the efficacy of the judicial system's intervention. Also, students will evaluate the rehabilitative treatment of the delinquent minor, according to experts in human behavior.

**JUST 3130: Drug Addiction and Rehabilitation: 3 credits**

In this course, students will examine the general concepts about the dependence on different types of legal and illegal addictive chemical substances, as well as the psychobiological and sociological factors and the current incidence. They will explain the etiology of drug addiction, its neurobiological base, and the theoretical approaches linked to addictive behavior as well as its connection with criminal behavior. Students will interpret the relationship between criminal behavior, violence, and the behavior of sex offenders and young offenders, and delinquency and mental health. Also, students will differentiate between public policy, rehabilitation methods and models, preventive approaches, treatment programs, recovery, and social reinsertion of young offenders and delinquents.

**JUST 3200: Penology and Correctional System: 3 credits**

In this course, students will examine the conceptual framework and background of penology, its impact in the correctional system and the legal-penal reaction. They will analyze the rights of the members of the prison population with those of other countries, their legislation, regulations, and jurisprudence. Furthermore, students will evaluate the social reinsertion services and programs for the members of the prison population.

**JUST 3610: White Collar Crimes and Fraud Detection: 3 credits**

In this course, students will analyze the origins and consequences of white collar crimes and fraud against today's society. Examine the sociological, economic, ethical, and legal impacts related to white collar crimes and fraud. Analyze the various fraud detection techniques. The students will also argue on measures to prevent white collar crimes and fraud.

**JUST 4020: Integrative Seminar on Criminal Justice: 3 credits**

In this seminar, students will integrate the knowledge, skills and aptitudes acquired or developed during their academic training in the disciplines related to the criminal justice system of Puerto Rico and the United States, as well as the Puerto Rico Department of Public Safety. They will apply the general principles of criminal law, special criminal law, criminal procedural law and evidentiary law in real situations. They will examine the procedures used in the study of the crime scene through scientific investigation methods. Likewise, students will develop preparatory and fundamental strategies and techniques for their integration into the workplace.

*(Pre-requisites: ETHI 1010, JUST 1015, JUST 1025, JUST 1030, JUST 1050, JUST 2020, JUST 2050)*

**JUST 4021P: Practice in Criminal Justice: 3 credits**

In this course, students will apply the knowledge and skills acquired during their academic preparation in the criminal justice system and in the Puerto Rico Department of Public Safety. Through practice, they will also demonstrate the attitudes and skills required for teamwork. In addition, they will make ethical and moral reasoning judgments regarding the Constitution of the Commonwealth of Puerto Rico, its laws, ordinances, and regulations. Graduates of this program will develop the preparatory and fundamental strategies and techniques for their integration into the workplace.

*(Pre-requisites: ETHI 1010, JUST 1015, JUST 1025, JUST 1030, JUST 1050, JUST 2020, JUST 2050)*

**JUST 4100: Information Systems Management in the Criminal Justice System: 3 credits**

In this course, students will analyze the basic concepts related to the management of information systems in the criminal justice system, the types of technological and information systems used, as well as their historical evolution in this field. They will establish the purpose of technology in the criminal justice system, the information systems used by the Federal Bureau of Investigation (FBI), and

various organizations focused on the field of information systems within the criminal justice system. Furthermore, students will evaluate the information systems used by the police, the correctional system, investigators, forensic scientists, and cyber crime investigators, as well as the technology to maintain the safety of crime victims. Also, they will examine software tools, applications, and free or low cost databases to carry out criminal investigations. *(Pre-requisites: ITTE 1031L, JUST 1010 or JUST 1000)*

**POLS 3110: Political Science: 3 credits (elective course)**

In this course, students will analyze and discuss concepts, institutions, processes, systems, and philosophy of Political Science. Critically argue about social and cultural factors that influence the development and evolution of a political culture. In addition, examine various political systems and international organizations and their influence in the social duty of a nation.

**PSEC 2000: Leadership, Criminal Justice, and Public Safety: 3 credits**

In this course, students will analyze the fundamental leadership concepts. Additionally, they will identify the oversight roles in an organization, as well as leadership strategies within the criminal justice and public safety systems. Students will also examine the types of conflicts and ethical dilemmas that can be observed in an organization. Likewise, they will evaluate the various theories on leadership, their paradigms and lenses, the implementation of changes in supervision, influences on leadership, as well as strategies for its development and emergency management, according to the United Nations (UN).

*(Pre-requisites: JUST 1000)*

**PSEC 2010: Conscience and Reach in Self Defense: 3 credits**

In this course, students will analyze the concepts, techniques, and resources associated with personal defense. Additionally, they will analyze the legal basis that justifies the use of force in the public safety environment. Likewise, they will apply the problem-solving model (S.A.R.A.) in their role as a public safety leader. *(Pre-requisite: JUST 1015)*

**PSEC 2020: Basic Emergency Management: 3 credits**

In this course, students will discuss the basic concepts of the National Incident Management System (NIMS). They will examine processes that guide communities, governments, non-governmental organizations (NGOs) and the private sector to work on the preparation, relief, response, and recovery in the aftermath of an emergency or a natural, human, or technological disaster. Additionally, they will apply the initial response process using the emergencies and disasters that recently took place in the United States and Puerto Rico as examples.

*(Pre-requisite: JUST 1000)*

**PSYC 2510: Psychology: 3 credits**

In this course, students will value the historical development and basic concepts of psychology, and its contribution to the scientific and social fields. They will examine the functions of the nervous, limbic, and endocrine systems and their influence on the cognitive, behavioral, and affective functions of the individual. Moreover, they will analyze theories of human development, learning, personality, and motivation, among others, and their contributions to understanding the human lifecycle within current psychology.

**PSYC 3010: Emotional Intelligence: Managing Stressful Situations: 3 credits**

In this course, students will examine the biological and theoretical fundamentals of emotional intelligence (EI) from a scientific-practical perspective, focusing on the relevance and implementation of emerging literature regarding the applicability of emotional intelligence in stress management. Also, they will analyze the relationship between emotional intelligence and other academic-professional areas such as human talent management, social responsibility, and stress management strategies at school or work, among others. Likewise, students will develop a training proposal to potentiate the use of emotional intelligence in everyday life. *(Pre-requisites: PSYC 2510)*

**PSYC 3110: Psychological Problems in Children, Adolescents and Adults: 3 credits**

In this course, students will analyze the history of psychological disorders, the psychopathology within the biopsychosociocultural context, and the main concepts that characterize it. Similarly,

they will explain the psychological conditions most commonly seen in minors, adolescents, and adults, as well as their etiology, prevalence, and diagnostic theoretical models. Also, students will categorize the structure and the prevention and treatment methods according to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5). Furthermore, they will evaluate the therapeutic models, the interview and interrogation alternatives, and the psychosocial and forensic screening in minors, adolescents, and adults with psychological disorders, considering the professional ethical-legal aspects. *(Pre-requisites: PSYC 2510)*

**STAT 1500: Statistics for Social Sciences: 3 credits**

In this course, students will review the elemental concepts of statistics within the context of social sciences. They will analyze the data, applying the statistical methods to compile, summarize, present, and interpret quantitative, qualitative, and categorical data. Students will apply the basic principles regarding the concepts of correlation and linear regression by using statistic formulas and applications that allow for data analysis. *(Pre-requisite: MATH 1010)*

***UNDERGRADUATE  
PSYCHOLOGY  
ACADEMIC PROGRAMS***

## Bachelor's Degree in Science in Psychology

### OBJECTIVE

The Bachelor's Degree in Science in Psychology Program will equip students in the basic principles of human behavior, with a scientific and ethical focus of the profession. Graduates of this program will identify theoretic models of psychological intervention, as well as psychological disorders and behaviors according to the professional practice. They will apply the scientific method and evidence-based psychological intervention models. Finally, they will develop the knowledge and skills necessary for continuing their professional development through graduate studies or by entering the workforce.

### PROGRAM COMPETENCIES

1. Apply theoretical, methodological, and practical knowledge of diverse psychological schools of thought in their professional performance as human behavior specialists.
2. Communicate ideas clearly, efficiently, and assertively, in a written, verbal, and non-verbal manner, while performing their duties individually or within a multidisciplinary or interdisciplinary team.
3. Analyze, in a logical and critical manner, information derived from research methods and biological, cognitive, affective, or behavioral processes in relation to empirically validated procedures, to proactively address situations that afflict individuals, including decision making, conflict management, or problem solving.
4. Integrate technological resources to search and process reliable information in a critical, ethical, legal, and systematic manner in their professional performance.
5. Demonstrate an ethical and moral behavior while exercising as a professional, free of prejudice, guided by a high sense of social responsibility, and in compliance with current standards and laws, while also valuing human experiences and diversity, and promoting well-being, empathy, and inclusion.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via online and on ground delivery methods.

- Also available in English language via online delivery method.
- Students should only enroll in classes and programs delivered in English at NUC University if they have adequately mastered the English language (reading, writing, and speaking). Likewise, students should not enroll in courses and programs delivered in Spanish at NUC University unless they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

31 Credits in General Education

48 Credits in Core Courses

32 Credits in Major Courses

9 Credits in Elective Courses

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**120 Total Credits**

### GENERAL EDUCATION:

BISC 1010	Biological Sciences	3
ENGL 1010	Basic English I	3
ENGL 1020	Basic English II	3
ENGL 2050	Conversational English	3
HUMA 1010	Humanities I	3
HUMA 1020	Humanities II	3
ITTE 1031L	Computer Literacy and Laboratory	3
MATH 1010	Basic Mathematics	3
SEMI 1001	University Environment Seminar	1
SPAN 1010	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
		<b>31</b>

### CORE COURSES:

PSYC 1010	Fundamentals of Psychology I	3
PSYC 1020	Fundamentals of Psychology II	3
PSYC 1100	History of Psychology	3
PSYC 1150	Human Development I	3
PSYC 1200	Ethical Principles in Psychology	3
PSYC 1250	Human Development II	3
PSYC 2000	Personality Disorders	3
PSYC 2150	Psychobiology	3
PSYC 2250	Personality Theories	3
PSYC 2350	Industrial and Organizational Psychology	3
PSYC 3000	Experimental Psychology	3
PSYC 3150	Introduction to Evaluation and Measurement	3
PSYC 3510	Social Psychology	3
PSYC 3520	Psychopathology	3



REME 2000	Social Investigation Methodology	3
STAT 1500	Statistics for Social Sciences	3
		<b>48</b>

#### MAJOR COURSES:

PSYC 2100	Learning and Motivation	3
PSYC 2200	Interviewing Techniques	3
PSYC 2300	Crisis Intervention	3
PSYC 2400	Introduction to Test Building	3
PSYC 3050	Writing Techniques in Psychology	3
PSYC 3100	Law and Mental Health	3
PSYC 3200	The Psychobiology of Addiction	3
PSYC 3250	Psychotherapy Models and Techniques	3
PSYC 4000	Alteration in Functional Development and Diversity	3
PSYC 4010	Integrated Psychology Seminar (Capstone)	4
SEMI 2000	APA Writing Seminar	1

**32**

#### DIRECTED ELECTIVES

**9**

#### TOTAL CREDITS

**120**

PSYC 5030	Topics in Industrial and Organizational Psychology	3
PSYC 5240	Current and Global Business Dilemmas	2

The recommended graduate-level electives are directed courses for students interested in pursuing a Master's degree in the Psychology area at NUC University. These courses must be passed with at least a "B" grade.

#### NOTES:

- All courses should be approved with at least a "C" grade, except for the Capstone course and elective courses at graduated level that must be passed with at least "B" grade.
- Course weeks may vary depending on the program offering, which has a total length of approximately 144 weeks.

#### Pool of electives recommended at Undergraduate level:

HEED 1500	First Aid	3
HOSE 1010	Forensic Psychology	3
JUST 1025	Fundamentals of Penal Laws	3
JUST 1040	Introduction to Criminology	3
JUST 2035	Crime Victims	3
JUST 3130	Drug Addiction and Rehabilitation	3
JUST 3100	Conflict Management	3
JUST 3110	Gender and Criminal Justice	3

#### Pool of electives recommended at Graduate level:

PSYC 5010	Human Behavior in the Social and Multicultural Environment	3
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***UNDERGRADUATE  
PSYCHOLOGY  
ACADEMIC PROGRAMS***

**PSYC 1010: Fundamentals of Psychology  
I: 3 credits**

In this course, students will examine the main currents, concepts, and areas that psychology covers. They will explain the scientific method and its relation to psychology. They will also analyze the theoretical and methodological fundamentals in human behavior.

**PSYC 1020: Fundamentals of Psychology  
II: 3 credits**

In this course, students will analyze psychology as a scientific discipline. They will explore relevant topics of modern psychology. They will examine the diversity and complexity of human beings. In addition, they will learn the ethical function of the profession. (*Pre-requisite: PSYC 1010*)

**PSYC 1100: History of Psychology: 3  
credits**

In this course, students will analyze the historical background of psychology. They will identify the origin and trajectory of the orientations that have marked its development as a discipline. They will create a historical outline of the main philosophical currents that supported its evolution until arriving at modern psychology. They will position themselves within the current historical context and their vision of the future.

**PSYC 1150: Human Development I: 3  
credits**

In this course, students will examine the systematic transformation of human beings at a biological, cognitive, affective, and behavioral level, from conception until childhood. They will analyze the role of inheritance and the environment in the evolutionary process of the individual. They will identify the primary models and theories that explain the changes throughout the life cycle using an integrated perspective. Likewise, they will describe the phenomena that pertain to each stage of life.

**PSYC 1200: Ethical Principles in  
Psychology: 3 credits**

In this course, students will analyze the basic concepts, philosophical principles, and importance of the study of ethics in psychology. They will examine the primary codes of ethics that govern the psychological profession in Puerto Rico and the United States. Also, they will

identify the ethical and moral conflicts and the guidelines for managing an ethical conflict. (*Pre-requisites: PSYC 1010, PSYC 1020*)

**PSYC 1250: Human Development II: 3  
credits**

In this course, students will apply the biopsychosocial model to the stages from adolescence till death. They will analyze the role of inheritance and the environment in the evolutionary process of the individual. They will identify the primary models and theories that explain the changes throughout the life cycle using an integrated perspective. Likewise, they will describe the phenomena that pertain to each stage of life. (*Pre-requisites: PSYC 1010, PSYC 1020, PSYC 1150*)

**PSYC 2000: Personality Disorders: 3  
credits**

In this course, students will examine the cognitive, affective, and behavioral patterns of individuals with personality disorders. They will identify the classification within its groups and subgroups according to its traits and characteristics. They will design an intervention plan and learn the comorbidity among them in relation to the pathologies. (*Pre-requisites: PSYC 1010, PSYC 1020, PSYC 3520*)

**PSYC 2100: Learning and Motivation: 3  
credits**

In this course, students will determine the relationship between learning and motivational processes. They will identify explanatory models of learning and motivation, taking into consideration the diversity in human learning. Lastly, they will interpret the concepts and approaches of the cognitive processes of motivation, instincts, seeking excitement, drive reduction, and incentives. (*Pre-requisites: PSYC 1010, PSYC 1020*)

**PSYC 2150: Psychobiology: 3 credits**

In this course, students will analyze the models that explain the biological bases and the cognitive, behavioral, and affective functions of individuals. They will examine the neuroanatomy and neurological function of the brain. Likewise, they will apply knowledge of the main theories of neuroconduction, synaptic mechanisms, nervous system, genetics, evolution, mental disorders, and addictive behavior, among others, related to

the functioning and operation of the brain. (*Pre-requisites: PSYC 1010, PSYC 1020*)

**PSYC 2200: Interviewing Techniques: 3 credits**

In this course, students will analyze psychological interviews as a resource for obtaining patient data, the types and techniques of interviews, as well as the theoretical models on which they are based. They will evaluate the components of communication, rapport, and ethical considerations during the process of psychological interviewing. Additionally, students will produce a psychodiagnostic report based on the data obtained from the interview, taking into account the particular characteristics of the clients. (*Pre-requisites: PSYC 1010, PSYC 1020*)

**PSYC 2250: Personality Theories: 3 credits**

In this course, students will examine the concept of personality from various perspectives and according to the main theoretical approaches and schools of thought. They will evaluate the traits and characteristics observed in the formation and development of personality, taking into consideration cognitive, behavioral, and affective patterns of behavior. Finally, they will critically analyze the historical evolution of the concept of personality and the contributions of various theories that try to define it.

(*Pre-requisites: PSYC 1010, PSYC 1020*)

**PSYC 2300: Crisis Intervention : 3 credits**

In this course, students will analyze the phenomenology, characteristics, and manifestations associated with mental health crises and emergencies. They will evaluate the various types of crises associated with human developmental stages and the context in which they manifest to determine the appropriate therapeutic intervention. Additionally, students will apply skills and techniques used in crisis intervention. (*Pre-requisites: PSYC 1010, PSYC 1020, PSYC 3520*)

**PSYC 2350: Industrial and Organizational Psychology: 3 credits**

In this course, students will examine the role of the industrial and organizational psychology professional in the face of current dilemmas and challenges in the work environment. They will explain human behavior in the context of business and social organizations. They will

present various techniques and criteria used in decision-making within the work environment.

(*Pre-requisites: PSYC 1010, PSYC 1020*)

**PSYC 2400: Introduction to Test Building: 3 credits**

In this course, students will examine the basic theoretical principles of the construction of psychological tests and the importance of their application in various aspects of human behavior. They will analyze the processes and psychometric properties in the construction of psychological measurement instruments. They will evaluate the appropriate statistics for studying the results of an instrument and its psychometric properties. Furthermore, they will develop a measurement instrument for the selected topic or issue. (*Pre-requisites: MATH 1010, STAT 1500*)

**PSYC 3000: Experimental Psychology: 3 credits**

In this course, students will examine the historical background and development of psychology as a scientific discipline and experimental science. They will apply the scientific method, as well as its research approaches and designs, as a study tool to generate a research idea. They will develop an experimental and non-experimental research proposal. (*Pre-requisites: MATH 1010, PSYC 1010, PSYC 1020*)

**PSYC 3050: Writing Techniques in Psychology: 3 credits**

In this course, students will apply writing techniques for organized, clear, and concise communication of ideas in accordance with established norms in the field of psychology. They will prepare papers within the psychological field and scientific writing according to specific characteristics and purposes. Furthermore, they will employ basic knowledge in creating proposals, essays, research papers, progress reports, and text production for professional competence in psychology. (*Pre-requisites: PSYC 1010, PSYC 1020*)

**PSYC 3100: Law and Mental Health: 3 credits**

In this course, the student will evaluate the relationship between the functions of the psychologist as a specialist in human behavior and the rights of patients according to mental health laws in Puerto Rico. They will examine the

current laws that protect minors and vulnerable populations, such as people with functional diversity, with low socioeconomic level, and confined individuals, among others. In addition, the student will value the development of public policy and client protection in his management as a mental health professional through a proposal elaboration. *(Pre-requisites: PSYC 1010, PSYC 1020)*

**PSYC 3150: Introduction to Evaluation and Measurement: 3 credits**

In this course, students will learn the basic concepts and relevance of psychological measurement. They will apply measurement processes used in psychology. They will determine a plan for the implementation of psychological and educational assessment instruments that are used to measure qualities of human behavior. Additionally, they will analyze psychometric theories and the evolution of psychological measurement in Puerto Rico. *(Pre-requisites: PSYC 1010, PSYC 1020)*

**PSYC 3200: The Psychobiology of Addiction: 3 credits**

In this course, students will examine the basic concepts and etiology of addictions from a multifactorial and biopsychosocial approach. They will analyze addiction as a disease, considering currently identified drugs as well as emerging drugs. Additionally, students will evaluate treatment models for substance use disorders to conceptualize and design a treatment plan based on each patient's needs. *(Pre-requisites: PSYC 3520)*

**PSYC 3250: Psychotherapy Models and Techniques: 3 credits**

In this course, students will analyze the main models of psychotherapy based on personality and learning theories. They will evaluate the processes of analyzing and applying psychotherapeutic techniques, as well as strategies for appropriate and meaningful psychotherapeutic interventions in their future practice. Additionally, they will examine evidence-based theories as a didactic tool and their applicability in the development of practical experience with psychotherapeutic models. *(Pre-requisites: PSYC 1010, PSYC 1020, PSYC 3520)*

**PSYC 3510: Social Psychology: 3 credits**

In this course, students will interpret social life from the point of view of the individual. Furthermore, they will identify the prevalent role of social institutions and social groups in the configuration of individuals as social entities. Additionally, students will explain the power of influence from individuals within groups, interaction processes, and social conflicts. Students will also critically analyze certain cultural patterns that promote and perpetuate conflictive interactions between individuals and between groups. *(Pre-requisite: PSYC 2510 or PSYC 1010, PSYC 1020)*

**PSYC 3520: Psychopathology: 3 credits**

In this course, students will examine the historical background of the development of psychopathology as we know it today. Additionally, they will analyze scientific contributions regarding the following concepts: insanity, normality, mental illness, and mental health. They will identify the main psychological disorders according to the classification of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5). They will also evaluate the theoretical basis of the concepts, specific disorders, criteria, differential diagnosis, theoretical models, as well as treatments, ethical and legal implications, and the particular situation in Puerto Rico. *(Pre-requisites: JUST 2020, PSYC 2510, 3510 or PSYC 1010, PSYC 1020)*

**PSYC 4000: Alteration in Functional Development and Diversity: 3 credits**

In this course, students will examine deviations from the typical course of human development, as well as their causes and effects, both in physical and emotional functioning. Additionally, they will analyze how functional diversity manifests, as well as its impact on the family, academic, and occupational levels. Furthermore, they will evaluate existing laws and programs, along with organizations created to protect and integrate the population experiencing developmental divergence and functional diversity. *(Pre-requisites: PSYC 3520)*

**PSYC 4010: Integrated Psychology Seminar (Capstone): 4 credits**

In this course, students will apply interview techniques, as well as the ethical principles, skills, and knowledge required for their profession.

They will analyze psychopathologies, along with their signs, symptoms, and intervention approaches. They will explore the concepts of diversity, vulnerable populations, and social contexts. They will also evaluate the importance of self-care for psychologists to prevent and manage syndromes or traumas such as burnout, compassion fatigue, and vicarious trauma, among others. (*Pre-requisites: PSYC 1010, PSYC 1020, PSYC 3520, PSYC 2000, PSYC 1150, PSYC 1250*)

### **REME 2000: Social Investigation**

#### **Methodology: 3 credits**

In this course, students will determine the processes and methods of quantitative and qualitative research in the creation of an investigation project. They will analyze the procedures and methods applied to the scientific research. Additionally, they will examine the procedures and techniques used to collect and analyze data. (*Pre-requisite: MATH 1010*)

### **SEMI 2000: APA Writing Seminar: 1 credit**

In this course, students will analyze the writing and style standards of the American Psychological Association (APA). They will apply the APA formatting system for citations and references in the preparation of academic, professional, investigative, and scientific papers. Additionally, they will evaluate the legal and ethical aspects of using the works of other authors, including compliance with copyright regulations. (*Pre-requisites: MATH 1010, STAT 1500*)

### **STAT 1500: Statistics for Social Sciences: 3 credits**

In this course, students will review the elemental concepts of statistics within the context of social sciences. They will analyze the data, applying the statistical methods to compile, summarize, present, and interpret quantitative, qualitative, and categorical data. Students will apply the basic principles regarding the concepts of correlation and linear regression by using statistic formulas and applications that allow for data analysis. (*Pre-requisite: MATH 1010*)

## ***GENERAL EDUCATION DEPARTMENT***

The General Education Program is comprised by a core of courses that are required in all of our undergraduate programs. They are designed to develop in our graduates the skills, knowledge and attitudes necessary to function as responsible citizens in contemporary society, and with a commitment for continuous learning throughout their whole life.

NUC identifies the following institutional learning goals necessary to build a solid foundation for the academic experience at the undergraduate level:

### ***Professional competence***

Capacity to apply creatively the knowledge and skills of their respective studies disciplines to actual and future scenarios for their own continuous development, self-employment, their profession and their fellow citizens in the local or global geographic area in which they decide to live and work.

### ***Communication skills***

Capacity to master Spanish properly as their first language and English as a second language.

### ***Critical and Creative Thinking***

Capacity to analyze, apply critically and creatively their professional competencies in the management of complex situations, decision making, problem solving, understanding, adapting, and generating changes, while at the same time managing them effectively.

### ***Logic mathematical reasoning***

Capacity to utilize quantitative and qualitative information in the problem solving process.

### ***Information Literacy (Digital competency)***

Capacity to apply in an ethical and critical manner the knowledge and skills related to the development and processes in information and digital environments in an effective and efficient way, considering the personal, professional, and citizen dimensions.

### ***Ethical and moral behavior***

Capacity to reason ethically and morally when facing complex situations, making informed decisions, and solving problems, showing respect towards laws, intellectual honesty, social responsibility, ethical judgment, respect to life

and environment conservation.

### ***Respect to diversity***

Capacity to recognize and value the richness of human experiences, understanding the multicultural, gender, political, and social differences and the capacities that enrich living together without incurring in discriminatory practices in the globalized world.

The General Education Department includes the following courses:

<b>CODE</b>	<b>TITLE</b>	<b>CREDITS</b>
BIOL 1010	Introduction to Biology	3
BISC 1010	Biological Sciences	3
ENGL 1010	Basic English I	3
ENGL 1020	Basic English II	3
ENGL 2050	Conversational English	3
HUMA 1010	Humanities I	3
HUMA 1020	Humanities II	3
ITTE 1031L	Computer Literacy and Laboratory	3
MATH 1010	Basic Mathematics	3
SEMI 1001	University Environment Seminar	1
SEMI 1010	Transition to University Life and Professional Training Seminar	1
SOSC 1010	Social Sciences I	3
SOSC 1020	Social Sciences II	3
SPAN 1010	Basic Spanish I	3
SPAN 1020	Basic Spanish II	3
SPAN 2040	Writing And Composition	3

*BIOL 1010 course is considered a core course in Health Science Allied Programs.*



## General Education Course Descriptions

### **BIOL 1010: Introduction to Biology: 3 credits**

In this course, students will examine the fundamental concepts of biology, the characteristics that distinguish living organisms, and their evolutionary processes. They will analyze the cell as the fundamental unit of living organisms, as well as its metabolic and energetic cellular processes. They will also relate the processes of cell division to human genetics. In addition, they will evaluate different ecosystems and the effect of human intervention on the environment.

### **BISC 1010: Biological Sciences: 3 Credits**

In this course, students will analyze the fundamental concepts and characteristics that distinguish living organisms, their evolutionary processes, and their interaction with other organisms and the environment. Distinguish the essential aspects for the function and development of life. Will explain the reproductive aspects of the cell and its genetic role. Also, they will evaluate different ecosystems and the effect caused by human intervention in them.

### **ENGL 1010: Basic English I: 3 credits**

In this course, students will demonstrate proper use of the English language with a primary focus on syntax, grammar, punctuation, and spelling. They will distinguish verb tenses in sentences and paragraphs. Additionally, students will produce clear, well-developed, and well-organized sentences, messages, paragraphs, and short presentations using correct capitalization, punctuation, and syntax.

### **ENGL 1020: Basic English II: 3 credits**

In this course students will increase their listening, reading, writing, and speaking skills in English as a second language. Students will demonstrate an understanding of the elements of grammar, literature and the development of the writing, reading, and listening abilities as well as the speaking skills. Also they will apply critical thinking skills in reading and writing.

*(Pre-requisite: ENGL 1010)*

### **ENGL 2050: Conversational English: 3 credits**

In this course, students will improve their oral and written communication skills in English. They will review past, present, and future tenses to identify the grammatical rules applicable to affirmative, negative, and interrogative statements. In addition, they will evaluate English pronunciation and intonation. Students will apply these grammar, pronunciation, and intonation rules when addressing others in conversation. Furthermore, they will examine English idioms and determine when they are used based on context. Finally, they will develop a persuasive idea that will showcase everything they have learned throughout the course. *(Pre-requisite: ENGL 1020)*

### **HUMA 1010: Humanities I: 3 credits**

In this course, students will analyze the fundamental aspects of the evolution of humanity and the historical development of social, economic, political, religious, and cultural movements in the civilizations that influenced the Western world. They will also evaluate the importance of the humanistic legacy and the vital values that led to the evolution and development of Western civilization. Furthermore, students will value the historical processes that shaped the legacy of the ancient and medieval Western civilization which are reflected in today's humanity.

### **HUMA 1020: Humanities II: 3 credits**

In this course, students will analyze the fundamental principles, impact, and transcendence of various philosophical and epistemological movements of the Western culture and their influence on current humanistic thinking from a multidisciplinary and interdisciplinary perspective. In addition, they will evaluate the periodization and characteristics of some political, religious, cultural, and scientific trends, as well as key values, traditions, and concepts that relate to today's society. They will also value the global influence of the legacy of Western culture by critically observing cultural and social transformations that occurred at different historical times from the Middle Ages to the 21st century.

*(Pre-requisite: HUMA 1010)*

**ITTE 1031L: Computer Literacy and Laboratory: 3 credits**

In this course, students will analyze the usefulness of email, institutional databases, and computerized systems in their learning process, considering aspects of academic integrity. In addition, they will examine fundamental concepts related to internet services, security, privacy, and ethics, as well as core aspects of assistive technology. Furthermore, they will demonstrate technological competencies in various application programs, cloud storage, and web pages.

**MATH 1010: Basic Mathematics: 3 credits**

In this course, students will apply the characteristics of the set of real numbers and their uses in everyday life, as well as the concepts of ratio, proportion, and percentage. They will also solve everyday situations by applying the concepts of linear equations and inequalities in one variable and in polynomials. In addition, students will use measurement concepts and conversion factors in professional and everyday problem-solving.

**SEMI 1001: University Environment Seminar: 1 credit**

In this course, students will develop essential skills for their training and transition from university life to their entry into the workforce. They will participate in learning experiences aimed at enhancing self-knowledge and exploring the possibilities of university studies and career paths. In addition, they will explain the competencies sought by employers with the support of available resources. Likewise, they will establish successful strategies for making progress in their academic program and for planning and entering the job market.

**SEMI 1010: Transition to University Life and Professional Training Seminar: 1 credit**

In this course, students will develop essential skills for their training and transition from university life to their entry into the workforce. They will participate in learning experiences aimed at enhancing self-knowledge and exploring the possibilities of university studies and career paths. In addition, they will explain the competencies sought by employers with the support of available resources. Likewise, they will establish successful strategies for making progress in their academic program and for

planning and entering the job market.

**SOSC 1010: Social Sciences I: 3 credits**

In this course, students will examine the fundamental concepts of the social sciences, starting with the evolution and development of society. They will analyze issues related to various disciplines that comprise the social sciences, such as anthropology, sociology, and psychology. They will also evaluate social issues by applying critical judgment to current social problems. This course requires 10 hours of participation in community service learning activities.

**SOSC 1020: Social Sciences II: 3 credits**

In this course, students will examine the disciplines of the social sciences, emphasizing the political, economic, and geographic issues affecting their social environment. Thus, they will investigate how these disciplines influence the current social changes that have shaped the world we live in. In addition, they will analyze the social developments that have contributed to the establishment of political and economic systems worldwide. Furthermore, students will evaluate the effects of industrial development, urban growth, and environmental movements in geography, the environment, and sustainability.  
(*Pre-requisites: SOSC 1010*)

**SPAN 1010: Basic Spanish I: 3 credits**

In this course, students will apply the basic spelling, grammar, and syntax rules when expressing themselves orally or in writing. They will analyze literary texts to communicate their critical response to the readings, acquire new vocabulary and improve their writing skills. Furthermore, students will assess the importance of language by applying linguistic knowledge and the rules governing oral and written communications correctly.

**SPAN 1020: Basic Spanish II: 3 credits**

In this course, students will critically analyze different literary genres such as poetry, theater, and novels. They will describe and illustrate their evolution, development, and characteristics. Furthermore, they will analyze the elements that differentiate investigative journalism from in-depth journalism. They will also recognize the importance of public speaking and discourse as resources for effective communication. In

addition, they will write and present a speech.  
(*Pre-requisite: SPAN 1010*)

**SPAN 2040: Writing and Composition: 3 credits**

In this course, students will analyze the main elements of communication and the methodology of planning, textualization and review in the writing process. They will also integrate spelling and grammar into text composition. In addition, they will explain the elements and structure of the monograph and its relevance in the professional field. Finally, they will develop a monograph on a topic of their interest. (*Pre-requisites: SPAN 1010, 1020*)

## ***TECHNICAL DIVISION ACADEMIC PROGRAMS***

***BEAUTY  
ACADEMIC PROGRAMS***

# Diploma in Barbering and Hairstyling

## DESCRIPTION

The Barbering and Styling Program prepares the student in all areas of the profession through the use of techniques and fundamental concepts that allow the acquisition of the versatility and confidence necessary for a successful performance. The graduate of this program will apply the knowledge acquired as a professional barber, educator, manager or business owner. In addition, they will use skills in the areas of cutting, color, beard and mustache shaving, business administration, among other techniques, to pass their board exam and practice the profession of barbering and styling.

## PROGRAM COMPETENCIES

1. Apply theoretical and practical knowledge in their professional performance as barbers with confidence in the labor field.
2. Analyze information and procedures related to the barbering professional field, sharp decision making, and service offerings in a logical and critical manner.
3. Communicate innovative ideas in oral and written form while performing their duties as barbers.
4. Use the technological, computer-based, and digital means available that may positively
5. contribute to procedures and performances related to barbers' duties.
6. Demonstrate collaborative work skills with a strong sense of responsibility, compliance with laws, respect for diversity, as well as good moral and ethical judgement as barbers according to the aspects that govern the profession.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

14 Credits in Core Courses

22 Credits in Major Courses

**36 Total Credits**

## CORE COURSES

COSM 1102	Hair Conditioning, Care, and Disorders**	2
COSM 1202	Product Chemistry and Electricity	2
COSM 1301	Skin and Face Care Principles (Esthetics)**	2
LCOS 1016	Chemical Hair Processes	2
COSM 1103	Hair Drying Techniques**	2
COSM 1015	Hair Coloring Techniques **	2
COSM 1014	Salon Layout, Design and Management	2
		<b>14</b>

## MAJOR COURSES

BARB 1006	The Profession: Barbering and Hairstyling	2
BARB 1103	Beard/Mustache Shaving and Styling**	2
LBAR 1104	Hair Cutting Design: Lab	2
LBAR 1105	Men's Classic Haircutting Design: Lab**	4
LBAR 1201	Men's Hairstyling **	2
LBAR 1106	Hair Cutting Design with Clippers: Lab **	2
BARB 1005	Men's Manicure **	2
BARB 1007	Preparatory Course for Barbering Board Exam	2
PBAR 1008	Externship */**	4
		<b>22</b>
<b>TOTAL CREDITS</b>		<b>36</b>

## NOTES:

- External internships will be performed in establishments outside the Institution, according to availability. Specific practice centers, days and schedules are not guaranteed.
- - This academic program has several courses that integrate with the extended laboratory of Beauty Clinic.
- Graduates of this program must pass the Barbering and Stylist Board exam in order to work profession in Puerto Rico.

# Diploma in Cosmetology

## DESCRIPTIONS

The Cosmetology Program prepares the student with the technical and manipulative skills necessary as a beauty specialist to perform aesthetic procedures of the face, removal of superfluous hair, different types of makeup, haircuts, and hand and foot beautification treatments. During this program, the student will also develop knowledge to perform elaborate hairstyles and chemical processes of hair, such as color, waving and hair relaxation, asepsis methods, history of beauty, chemistry of products and electricity, and administration in salon management. After successfully completing the course, the graduate of this program will be able to practice the profession in public or private beauty salons, after efficiently passing the exams required to obtain the license offered by the Beauty Specialists Examination Board.

## PROGRAM COMPETENCIES

1. Apply theoretical and practical knowledge in their performance as beauty consultants in the areas related to their profession.
2. Analyze the information and procedures related to their professional field in their working environment in a logical and critical manner.
3. Communicate sharp, clear, and effective ideas in oral and written form while performing their duties as beauty consultants in different situations within and outside the working environment.
4. Use technological and digital means and reliable sources of information to perform procedures related to the beauty consultant duties.
5. Demonstrate collaborative work skills with a strong sense of responsibility, respect for diversity, and good moral and ethical judgement in compliance with established laws to practice the profession.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

32 Credits in Major Courses

### 32 Total Credits

## CORE COURSES

COSM 1017	The Profession: Cosmetology	2
COSM 1102	Hair Conditioning, Care, and Disorders**	2
COSM 1202	Product Chemistry and Electricity	2
COSM 1301	Skin and Face Care Principles (Esthetics)**	2
COSM 1013	Manicure y Pedicure**	2
LCOS 1013	Makeup: Lab**	2
COSM 1103	Hair-Drying Techniques **	2
LCOS 1102	Hairstyles **	2
LCOS 1202	Curls, Waves, and Ringlets	2
LCOS 1014	Hair Cutting I: Lab **	2
LCOS 1016	Chemical Hair Processes	2
COSM 1015	Hair Coloring Techniques **	2
LCOS 1015	Haircutting II and III: Lab **	4
COSM 1018	Salon Layout, Design, and Management	1
COSM 1019L	Preparatory Course for the Beauty Board Exam: Laboratory	1
PCOS 1009P	Externship*/**	2

**TOTAL CREDITS 32**

## NOTES:

- \*Externships will be performed in establishments outside the Institution, according to availability. Specific practice centers, days and schedules are not guaranteed.
- \*\*This academic program has several courses that integrate with the extended laboratory of Beauty Clinic.
- Graduates of this program must pass the Beauty Specialists Board exam in order to work profession in Puerto Rico.



## Diploma in Esthetics

### DESCRIPTION

The Esthetics Program prepares the student in the theoretical and practical knowledge necessary to perform tasks of evaluation, prevention and improvement of skin conditions with the application of facial and body esthetic treatments using products, equipment and specialized machinery in the field of esthetics. The program includes the principles of esthetics, facial and body treatments, depilation, chemical application, professional makeup, sterilization and disinfection procedures of equipment and service areas, aligned to medical esthetics and aromatherapy. The student will develop skills for the development of a business plan with updated information, training and technical advice in all aspects of the development, assembly and management of a small and medium business in the esthetics industry. Graduates of this program will be able to work as estheticians and occupy management and sales positions of products and equipment in esthetic centers, medical offices, and commercial companies.

### PROGRAM COMPETENCIES

1. Apply theoretical and practical knowledge in their professional performance as an esthetician to insert themselves successfully in the workforce.
2. Analyze logically and critically information and procedures related to their professional field in skin care and maintenance, both of the face and the body.
3. Communicate ideas either in oral or written form in an assertive and effective manner while executing their role as professional estheticians.
4. Use available technological, digital, and information media to apply the acquired knowledge efficiently and effectively.
5. Demonstrate a high sense of responsibility, compliance with applicable laws, respect for diversity, and good moral and ethical judgement in their professional field, allowing them to promote their collaborative work in a safe and healthy environment.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC

University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

8 Credits in Core Courses  
28 Credits in Major Courses

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### 36 Total Credits

#### CORE COURSES

EMME 1021	Anatomy and Physiology Principles	2
COSM 1012	The Profession	2
COSM 3044	Professional Makeup I	2
COSM 3048	Business Development	2
		<b>8</b>

#### MAJOR COURSES

ESTE 1014	Bacteriology and Sterilization	2
ESTE 2002	Skin Analysis, Disorders and Treatments	2
ESTE 1011	Esthetic Treatments for Hands and Feet: Lab**	2
ESTE 1023	Principles of Esthetics (Facial Cleansing)**	2
ESTE 1031	Chemistry, Electricity and Esthetics Equipment	2
ESTE 1024	Facial Treatments I: Lab **	2
ESTE 1401	Removal (Depilation): Lab**	2
ESTE 1025	Facial Treatments II: Lab **	2
ESTE 1012	Body Treatments I (Microdermabrasion and Cellulite Treatments)**	2
COSM 3050	Professional Makeup II	2
ESTE 1013	Body Treatments II (Medical Esthetics)	2
AROM 1002	Aromatherapy	2
ESTE 1072	Externship */**	4
		<b>28</b>
<b>TOTAL CREDITS</b>		<b>36</b>

#### NOTES:

- \*Externships will be performed in establishments outside the Institution, according to availability. Specific practice centers, days and schedules are not guaranteed.
- \*\*This academic program has several courses that integrate with the extended laboratory of Beauty Clinic.

## Diploma in Advanced Hairstyling and Design

*This program is currently in a teach-out process and is not accepting new students. Reentry may be possible only if a student can complete the program within the teach-out period, subject to approval by the Vice President of Academic Affairs. Contact Academic Affairs department for information on the teach-out date for your program at your location.*

### DESCRIPTION

The Advanced Styling and Design Program prepares the student with advanced knowledge in the field of cosmetology and hair design. It exposes the theoretical and practical knowledge necessary for the student to develop advanced makeup and hairstyling techniques, the use, care and correct placement of extensions, hairpieces and ornamentation necessary for the creation of new styles. It also requires the application of colorimetry techniques, as well as advanced chemical and reconstruction products, such as botox, keratin and cold wax, among others. Graduates of this program will be able to work as image consultants, professional product line technicians, business owners, professional runway stylists and educators.

### PROGRAM COMPETENCIES

1. Apply theoretical and practical knowledge in their professional performance as hair color technicians, professional stylists, and makeup artists.
2. Analyze information and procedures related to their professional field in a logical and critical manner, including hairstyles, haircuts, makeup, hair color, extensions, hairpieces and ornamentations.
3. Communicate sharp, clear and effective ideas in oral and written form while performing their duties as professional image consultants.
4. Use the available technological, computer-based and digital means in procedures related to image consultant duties.
5. Demonstrate teamwork skills with a strong sense of responsibility, compliance with laws, respect for diversity, as well as good moral and ethical judgement in their professional

field.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

8 Credits in Core Courses  
16 Credits in Major Courses

### 24 Total Credits

### CORE COURSES

COSM 3048	Business Development	2
COSM 3049	Hair Coloring: Lab*	4
COSM 3044	Professional Makeup I	2
		<b>8</b>

### MAJOR COURSES

COSM 3041	Professional Image and Consulting	2
COSM 3051	Hairstyles (Long Hair) *	2
COSM 3105	Advanced Hair Cutting Techniques *	2
COSM3047	Chemical Hair Processes (Advanced)*	2
COSM 3052	Hairstyles (Short and Medium Hair)	2
COSM 3106	Advanced Hair Cutting Techniques*	2
COSM 3053	Hairpieces, Extensions, and Ornamentation	2
COSM 3046	International Hairstyling and Design	2
		<b>16</b>
		<b>24</b>

### TOTAL CREDITS

### NOTES:

- \*This academic program has several courses that integrate with the extended laboratory of Beauty Clinic.

# Diploma in Nail Technology

## DESCRIPTION

The Nail Technology Program prepares the student in the theoretical and practical knowledge of the profession, emphasizing the development of manipulative skills and positive attitudes to successfully practice in the workforce. During their participation in the program, students will develop skills in the processes of manicure, pedicure, artistic creations and all types of artificial nails. They will also demonstrate mastery of the proper use of tools, implements and equipment, emphasizing the importance of maintaining an adequate application of asepsis and personal safety parameters. Graduates of this program will be able to work as manicurists, pedicurists, nail technicians, managers of their own businesses, beauty product salespersons, specialized line representatives, consultants or advisors, among other positions.

## PROGRAM COMPETENCIES

1. Apply theoretical and practical knowledge in their professional performance as a specialist in the field of nail technology.
2. Analyze logically and critically information and procedures related to their professional field.
3. Communicate ideas assertively and effectively, either orally or in written form, while executing their role as a specialist in different situations in and out of the work environment.
4. Use available technological, digital, and information media for procedures related to the work of a nail, hand, and feet care specialist.
5. Demonstrate skills for collaborative work with a high sense of responsibility, compliance with applicable laws, respect for diversity, and good moral and ethical judgement in their professional field as a nail technician.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

6 Credits in Core Courses

18 Credits in Major Courses

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**24 Total Credits**

## CORE COURSES

COSM 1012	The Profession	2
COSM 1013	Manicure and Pedicure**	2
COSM 1014	Salon Layout, Design, and Management	2
		<b>6</b>

## MAJOR COURSES

TEDU 1007	Brush Design	4
LTED 2010	Acrylic Nails: Lab**	4
LTED 2007	Sculptural Nails: Lab**	2
LTED 2008	The Creative Touch**	4
LTED 2009	Gel Nails: Lab**	2
PTED 1078	Externship*/**	2
		<b>18</b>
<b>TOTAL CREDITS</b>		<b>24</b>

## NOTES:

- \*Externships will be performed in establishments outside the Institution, according to availability. Specific practice centers, days and schedules are not guaranteed.
- \*\*This academic program has several courses that integrate with the extended laboratory of Beauty Clinic.

## Diploma in Master in Barbering

*This program is currently in a teach-out process and is not accepting new students. Reentry may be possible only if a student can complete the program within the teach-out period, subject to approval by the Vice President of Academic Affairs. Contact Academic Affairs department for information on the teach-out date for your program at your location.*

### DESCRIPTION

This program provides graduates of the Barbering and Hairstyling Program with the advanced knowledge and skills needed to practice the occupation. This includes knowledge of new fashion trends worldwide in terms of cutting, coloring, chemical restructuring, and long to short hair styling for men. Hair removal, make-up, and body design techniques are also discussed and applied. In addition, the program gives students the opportunity to develop their creativity and their own style in the occupational field. The program has a business development component to drive the entrepreneurship of those who aspire to establish their own salon.

### PROGRAM COMPETENCIES

1. Apply innovative and advanced makeover techniques, showing creativity, originality and mastery of the latest fashion trends related to haircutting, coloring, shaving, waxing, makeup, and body image.
2. Communicate information about products and services related to their field of work with clients and colleagues in an effective and assertive manner.
3. Propose options that are consistent with the needs and goals of the customers who request a makeover or services related to haircutting, coloring, shaving, waxing, make-up, and body image.
4. Use technical and computer-based resources to keep up with current trends and techniques and to offer various haircutting, coloring, shaving, waxing, make-up, and body imageservices properly.
5. Apply health protocols and customer service policies that promote ethical and moral behavior, and respect for diversity.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

8 Credits in Core Courses

16 Credits in Major Courses

### 24 Total Credits

### CORE COURSES

COSM 3048	Entrepreneurship Development	2
COSM 3047	Chemical Hair Process (Advanced)*	2
COSM 3049	Hair coloring - Lab*	4
		<b>8</b>

### MAJOR COURSES

MBAR 3000	Advanced Shaving Design for Men*	2
MBAR 3001	Eyebrows Hair Removal and its Techniques	2
MBAR 3004	Makeup and Body Design	2
MBAR 3003	Advanced Long To Short Textured Haircuts*	4
MBAR 3002	Structural Hair Design *	2
MBAR 3005	New World Trends (Haircut, Men Hairstyle)	4
		<b>16</b>
		<b>24</b>

### TOTAL CREDITS

### NOTES:

- \*This academic program has several courses that integrate with the extended laboratory of Beauty Clinic.

## ***BEAUTY COURSE DESCRIPTIONS***

**AROM 1002 Aromatherapy****2 Credits****Prerequisites: None**

In this course, the student will learn about the history, evolution, and properties of essential oils, as well as their uses, benefits, and contraindications. Students will prepare esthetic treatments based on essential oils and preparations for skin care, such as masks, scrubs, soaps, lotions, and creams, among others. Also, apply knowledge about methods, techniques and hygiene and safety measures in the storage of products, in the environment of the cabin and in the esthetic services.

**BARB 1005 Men's Manicure****2 Credits****PrerequisitePrerequisites: None**

In this course, the student will analyze the anatomy of the hand, arm and forearm, including the skeletal and muscular system. Students will correctly perform related to the men's manicure accompanied by hand and forearm massages. Also, apply regular and gel polish on natural nails. In addition, students will develop the necessary skills for the professional manicure service for men, emphasizing safety and hygiene measures in the correct preparation of the work area within the time of execution. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Beauty Clinic.

**BARB 1006 The Profession: Barbering and Hairstyling****2 Credits****PrerequisitePrerequisites: None**

In this course, the student will describe the historical background of barbering and styling, hierarchical positions in society, additional professions employed by barbers in history, meanings of symbols representative of the profession, the laws and regulations established by the Examiner Board. Additionally, it will discuss issues related to professional image such as dress, grooming, hygiene, conduct, and proper ethics. It will analyze the different specializations in the beauty field and the possible employment options for future graduates. In addition, it will differentiate the materials, instruments and sterilization methods for the prevention of bacteria and infections under the pertinent laws.

**BARB 1007 Preparatory Course for Barbering Board Exam****2 Credits****PrerequisitePrerequisites: To have passed all previous courses, except for PBAR 1008**

In this course, the student will apply the necessary knowledge to be able to apply and complete the revalidation exam of the Puerto Rico Barber and Stylist Examination Board. In addition, students will be trained for the theoretical exam by reinforcing topics such as the historical background of barbering, dates of utmost importance in the development and evolution of the profession, aspects of diseases, bacteriology and asepsis protocols, among others. In turn, in preparation for the practical exam, the student will learn about the tools and equipment necessary to complete the exam, the appropriate clothing to be used, the processes to be performed on both the model and the mannequin, and the execution time for each of them.

**BARB 1103 Beard/Mustache Shaving and Styling****2 Credits****PrerequisitePrerequisites: None; Co-requisitesCOSM 1301**

In this course, the student will apply beard and mustache grooming skills. They will develop the steps, movements and coverage required by the Board of Examiners for shaving. In addition, students will learn the use and handling of equipment, materials, and products emphasizing hygiene and safety in the work environment. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Beauty Clinic.

**COSM 1012 The Profession****2 Credits****PrerequisitePrerequisites: None**

In this course, the student will analyze the historical background of beauty and its different specializations with possible employment options for future graduates. Students will develop topics related to the image of the future beauty professional such as clothing, makeup, personal hygiene, behavior, and attitudes. In addition, it will correctly apply the recommendations for the use of chemical materials, instruments and

asepsia methods for the prevention of bacteria and infections in an establishment.

**COSM 1013 Manicure and Pedicure**  
**2 Credits**

**PrerequisitePrerequisites: None**

In this course, the student will analyze the anatomy of the natural nail, as well as the muscular and skeletal system of the arms, hands, legs, and feet. Likewise, the student will correctly use the instruments, materials and equipment, taking into account the appropriate safety and hygiene measures. In addition, students will develop the procedures and massages required for a professional manicure and pedicure. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Beauty Clinic.

**COSM 1014 Salon Layout, Design, and Management**  
**2 Credits**

**PrerequisitePrerequisites: None**

In this course, the student will apply effective job search strategies. In addition, students develop body language and professional image skills and attitudes for a successful interview. Students will also design a business plan that includes operational processes, documents, financial statements, and insurance for the management of a beauty establishment.

**COSM 1015 Hair Coloring Techniques**  
**2 Credits**

**PrerequisitePrerequisites: None**

In this course, the student will apply the theories of formulation of basic and creative mixtures of hair dyeing and hair coloring to achieve changes and special effects. Likewise, the student will analyze the conditions of the hair for the difference of the results in the process of hair lightening and coloring. In addition, students will use the different hair lightening techniques. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Beauty Clinic.

**COSM 1017 The Profession: Cosmetology**  
**2 Credits**

**PrerequisitePrerequisites: None**

In this course, the student will explore the historical background of cosmetology and other specialties in the beauty world, as well as the applicable laws. They will discuss topics related to professional and personal image, such as proper conduct, aptitude, attitude, hygiene, dress and make-up in the work environment. In addition, analyze the cleaning process through the methods of aseptic, sanitization, sterilization and disinfection. It will also identify possible job options in the beauty field for future graduates.

**COSM 1018 Salon Layout, Design, and Management**  
**1 Credit**

**Prerequisites: None**

In this course, the student will apply effective job search strategies. In addition, students develop body language and professional image skills and attitudes for a successful interview. Students will also design a business plan that includes operational processes, documents, financial statements, and insurance for the management of a beauty establishment.

**COSM 1019L Preparatory Course for the Beauty Certification Exam and Laboratory**  
**1 Credit**

**Prerequisites: COSM 1017, COSM 1102, COSM 1202, COSM 1301, COSM 1013, LCOS 1013, COSM 1103, LCOS 1102, LCOS 1202, COSM 1015, COSM 1018, LCOS 1014, LCOS 1016, LCOS 1015**

In this course, the student will research the laws, documents, and processes related to the revalidation exam of Beauty Specialist Examination Board. Students will apply theoretical knowledge about the history of the profession, professional ethics, bacteriology, skin care, trichology, anatomy and physiology, product chemistry, and electricity. Finally, they will develop their practical skills in cutting, perming, rollers, rings, gala make-up, elaborate hairstyling, manicure and facials, according to the time and standards of the Beauty Specialist Examination Board.



**COSM 1102 Hair Conditioning, Care, and Disorders****2 Credits****Prerequisites: None**

In this course, the student will analyze the structure, distribution, growth, development, and hair pigmentation, as well as hair loss due to diseases and disorders that affect the scalp. Students will apply theoretical and practical knowledge to perform different treatments on the scalp with the appropriate products according to the condition of the hair. In addition, students will develop skills in the areas of client preparation, massage, hair washing and rinsing techniques. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Beauty Clinic.

**COSM 1103 Hair-drying Techniques****2 Credits****Prerequisites: None**

In this course, the student will examine the use of tools and products and the application of procedures and techniques to achieve different drying styles according to the length of each hair. Students will understand the use and handling of manual blow dryers, curling irons, flat irons and their temperatures taking into consideration the texture of the client's hair. Likewise, students will demonstrate practical skills in the handling of equipment and instruments for hair drying, following the appropriate safety and hygiene protocols. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Beauty Clinic.

**COSM 1202 Product Chemistry and Electricity****2 Credits****Prerequisites: None**

In this course, the student will analyze the chemical components and their effects in the processes applied to hair and skin. Students will categorize the various treatments offered with the use of electricity. In addition, students will discuss the safety measures and precautions required in the handling of equipment.

**COSM 1301 Principles of Esthetics, Face and Skin Care****2 Credits****Prerequisites: None**

In this course, the student will examine the parts, function, composition, and types of skin. In addition, students will discuss the structure, disorders, conditions, and diseases, preventive and corrective methods for skin care. The student will also apply the basic procedures and manipulations to perform facials. Additionally, students will determine which products, equipment and materials are appropriate for the services, integrating safety and hygiene measures. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Beauty Clinic.

**COSM 3041 Professional Image and Consulting****2 Credits****Prerequisites: None**

In this course, students will apply theoretical and practical knowledge in consulting and development to maximize the professional image and the client. They will develop advanced techniques based on the concept of personal marketing, including facial morphology and visagism, body language and posture, esthetics, and protocols at the corporate level. Lastly, students will demonstrate skills in fashion and makeup tendencies and their application to the individual, as well as the design of a total look for a new image.

**COSM 3044 Professional Makeup I****2 Credits****Prerequisites: None**

In this course, the student will describe the morphology of the face and visage, as well as skin diseases and disorders. They will integrate new trends, techniques and details in eyebrow arching and corrective, bridal photographic, television, film, men's and competition of make-up. You will use the latest international techniques and the necessary products and equipment to expand your knowledge in the makeup industry. It will also promote the rules of ethics in the professional makeup service.

**COSM 3046 International Hairstyling and Design****2 Credits****Prerequisites: None**

In this course, the student will create innovative haircuts, hairstyles and make-up using international techniques in accordance with current fashion trends. Students will demonstrate the new lines, shapes, directions, and textures of hairstyles used internationally. Use the tools, equipment and innovative cutting, color and hairstyling techniques of international design. Finally, apply the skills, techniques and collaborative work in various beauty events.

**COSM 3047 Chemical Hair Processes (Advanced)****2 Credits****Prerequisites: None**

In this course, the student will examine the technology of the most innovative chemical processes in hair treatment, including the effects and results of the application of different products. The student will evaluate the characteristics and needs of each client's hair for the selection of the most pertinent product. Finally, the student will demonstrate correct application techniques in the treatment and management of hair. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Beauty Clinic.

**COSM 3048 Business Development****2 Credits****Prerequisites: None**

In this course, the student will examine the operational and administrative aspects of a business in the beauty field, such as the location, management, employment, sources, use of funds, as well as projected income and expense statements. In addition, it will analyze the general environment, the potential market and the marketing plan for this type of business. It will also explain the laws that regulate the administration of the business and the permissions that the various agencies require to establish it.

**COSM 3049 Hair Coloring: Lab****4 Credits****Prerequisites: None**

In this course, students will analyze the evolution of hair coloring techniques for men. They will examine the chemical properties of color, the fundamental color application techniques, new product lines, innovative color combinations, and new color designs. They will follow the established safety methods to apply the color techniques learned. In addition, they will compare the different color charts of various manufacturers to know their numerical system and thus understand the color alternatives within each manufacturer's color scheme. Finally, they will create an original style according to trends from various seasons. This course is part of the integration model between the Beauty Clinic and the academic program. Students will perform tasks and services directly in the Beauty Clinic.

**COSM 3050 Professional Makeup II****2 Credits****Prerequisites: COSM 3044**

In this course, the student will apply advanced professional makeup skills. Students will use innovative designs with new makeup techniques for bridal, fantasy, photography, theater, television, characterization, epochs, seasons, catwalk and high technology. In addition, the student will analyze the protocols and procedures according to the characteristics of the client, the type of makeup, the cosmetic lines, and in accordance with the pertinent safety and hygiene measures.

**COSM 3051 Hairstyles (Long Hair)****2 Credits****Prerequisites: None**

In this course, the student will create innovative proposals and hairstyles for long hair. In addition, students will design new hairstyles using advanced techniques in udos or chignons, gala, semi-gala, classic and contemporary hairstyles. Likewise, students will use different equipment, materials and accessories to create complex and creative hairstyles. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Beauty Clinic.

**COSM 3052 Elaborated Hairstyles (Short and Medium Hair)****2 Credits****Prerequisites: None**

In this course, the student will elaborate advanced styles and hairstyles with the use of products, equipment, materials, and tools for short and medium hair. In addition, students will design hairstyles for short and medium hair suitable for different types of occasions and based on new theories and fashion trends. They will also correctly handle the equipment, materials and accessories used for the elaboration of hairstyles in compliance with the corresponding safety measures and hygiene principles.

**COSM 3053 Hairpieces, Extensions, and Ornamentation****2 Credits****Prerequisites: None**

In this course, the student will apply the elements and procedures for the maintenance, cleaning, and removal necessary for the various hair accessories and headdresses. Students will develop verbal and written communication skills to provide advice to the client regarding to use of accessories as alternatives to hair loss problems, as well as to requests for image changes quickly and according to current fashion trends. In addition, demonstrate safety and aseptic procedures in the handling of equipment and tools during the installation of hair extensions and hairpieces.

**COSM 3105 Advanced Hair Cutting Techniques****2 Credits****Prerequisites: None**

In this course, the student will analyze the haircut design through the steps of sculpting, its angles and the abstract perception of the stylist. Students will apply the pertinent skills in the use of cutting tools and equipment. It will also apply a variety of special effects in cutting long and medium length hair. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct assignments and services in the Beauty Clinic.

**COSM 3106 Advanced Techniques and Trending Cuts****2 Credits****Prerequisites: None**

In this course, the student will apply safety measures, as well as the handling of implements and equipment according to the type of hair. Likewise, students will develop short haircut graphics guided by the sculpting procedure. In addition, students will design advanced cuts using live models. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform tasks and services in the Beauty Clinic.

**EMME 1021 Anatomy and Physiology Principles****2 Credits****Prerequisites: None**

In this course, the student will examine basic concepts and principles of human anatomy and physiology. They will also analyze the structure and function of the different systems of the human body. It also reviews the malfunctioning of the organs and their possible pathological effects on the body.

**ESTE 1011 Esthetic Treatments for Hands and Feet: Lab****2 Credits****Prerequisites: None**

In this course, the student will analyze the general anatomy and physiology of the hands and feet. Students will manipulate in a stimulating way the basic and/or special tissues in these parts of the human body using the appropriate instruments, materials, and beauty products. In addition, the student will distinguish between the safety and disinfection rules for clients with disorders and diseases of the hands and feet from the approach of prevention within the work area. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Beauty Clinic.

**ESTE 1012 Body Treatments I (Microdermabrasion and Cellulite Treatments)****2 Credits****Prerequisites: ESTE 1031**

In this course, the student will use microdermabrasion and microelectricity as part of

advanced esthetics. Students apply the necessary techniques to promote toning, stimulation and relaxation of facial and body muscles. Students will use different body treatments emphasizing cellulite, adiposity, stretch marks and fluid retention in the body. Finally, the student will select the instruments and electro-aesthetic equipment necessary for the treatment, according to the client's needs and safety. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Beauty Clinic.

### **ESTE 1013 Body Treatments II (Medical Esthetics)**

**2 Credits**

**Prerequisites: ESTE 1012**

In this course, the student will examine the preparation procedures, assistance, and pre and postoperative care in medical esthetics. They will discuss the treatments offered for facial and body surgeries, as well as the instruments, equipment and complementary products for advanced surgical procedures, following hygiene and safety measures. In addition, you will discover the immediate, medium and delayed preparation and recovery treatments for tissues after a surgical procedure.

### **ESTE 1014 Bacteriology and Sterilization**

**2 Credits**

**Prerequisites: None**

In this course, the students will explore in detail all aspects related to different pathogens and hygiene, disinfection, and sterilization methods. They will discuss the importance of biosafety in establishments, the proper use of chemical agents and procedures, esthetic equipment and tool decontamination methods and techniques. Lastly, the students will examine the mechanisms that are used in the community to promote a healthy environment in the workplace.

### **ESTE 1023 Principles of Esthetics (Facial Cleansing)**

**2 Credits**

**Prerequisites: None**

In this course, the student will examine the image and skills of an esthetician, the consultation process with the client, as well as the benefits and contraindications of a facial. Students will analyze

the characteristics of the skin, its types, affections or conditions in both women and men and the possible treatments according to the client's needs. Also, apply techniques, principles and basic processes of makeup removal, as well as deep cleaning, hygiene and sterilization in the work area. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Beauty Clinic.

### **ESTE 1024 Facial Treatments I: Lab**

**2 Credits**

**Prerequisites: ESTE 2002 and ESTE**

**1023**

In this course, the student will analyze the theoretical foundations and protocols assigned to facial treatment as required by each client. At the same time, the student will apply the facial techniques and manipulations required in the field of esthetics taking into account each biotype and skin condition. In addition, they will use the safety and sanitation measures required in the work space. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Beauty Clinic.

### **ESTE 1025 Facial Treatments II: Lab**

**2 Credits**

**Prerequisites: ESTE 1024**

In this course, the student will apply, in a consistent manner, the facial treatment techniques previously acquired. Students analyze the importance, benefits, contraindications, and established protocols of the machinery and products used in advanced esthetic treatments. In addition, students will use the decontamination and safety measures established in the field of esthetics. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Beauty Clinic.

### **ESTE 1031 Chemistry, Electricity, and Esthetic Equipment**

**2 Credits**

**Prerequisites: None**

In the esthetics course, the student will analyze the active principles in esthetic treatments, as well as their benefits and contraindications. Students will also differentiate the esthetic

equipment that provide the best results in facial and body treatments. In addition, it will examine the importance of the most used equipment in facial and body esthetics, as well as the importance of electricity in the different services of esthetic establishments. It will also explain the safety measures and precautions required when handling esthetic equipment and chemical products.

### **ESTE 1072 Externship**

#### **4 Credits**

**Prerequisites:** To have approved all previous courses except AROM 1002

In this course, the student will use the knowledge and skills acquired in the program on aesthetic treatments and makeup under the supervision of a specialist. Students will examine the professional competencies of the skin care industry, such as preparation, organization, administration, and operation of esthetic centers, beauty salons, spas, among others. At the same time, they will apply decontamination procedures and safety measures in compliance with federal and state laws and regulations for infection control and accident prevention. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Beauty Clinic.

### **ESTE 1401 Hair Removal (Depilation): Lab**

#### **2 Credits**

**Prerequisites:** None; **Co-requisites:** ESTE 1031

In this laboratory, the student will explain all the aspects related to hair in order to offer a better orientation and depilation service. In turn, the students will compare the different hair removal methods and their limitations in esthetic salons. In addition, they will apply the proper procedures and the correct use of equipment, tools and products for hair removal treatment. Finally, they will practice the corresponding protocol following the necessary health and safety rules in the process. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Beauty Clinic.

### **ESTE 2002 Skin Analysis, Disorders, and Treatments**

#### **2 Credits**

**Prerequisites:** None

In this course, the students will analyze the anatomy and physiology of the skin, including its needs, disorders, and care. They will evaluate disorders, common and special conditions corresponding to each type of skin, and possible treatments with adequate products. Furthermore, students will discover allergy control and prevention methods, and the proper nutrition to maintain a healthy skin.

### **LBAR 1104 Hair Cutting Design: Lab**

#### **2 Credits**

**Prerequisites:** None

In this course, the student will analyze the pertinent safety and hygiene measures in the exercise of the barbering and styling profession. Students will explore the skills of 0 and 45 degree cuts with their variants according to the morphology of the client's face. In addition, they will apply techniques of hair sectioning, blocking and angles to provide precise 0 and 45 degree cuts. In addition, the student will use the cutting and hair design instruments correctly to achieve the final result.

### **LBAR 1105 Men's Classic Hair Cutting Design: Lab**

#### **4 Credits**

**Prerequisites:** LBAR 1104

In this course, the student will develop manipulative skills for 90 degree cuts, razor cuts, thinning, cuts for children, among others, according to the morphology of the client's face. Students will demonstrate knowledge on the use of beauty salon instruments, sterilization and disinfection processes, types of skin diseases, and the application of safety measures. Also, they will apply skills for the execution of the classic cut with the scissors over comb technique, required for the approval of the practical exam of the Barbering Examining Board. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Beauty Clinic.

**LBAR 1106 Hair Cutting Design with Clippers: Lab**  
**2 Credits**

**Prerequisites: LBAR 1105**

In this course, the student will practice the different types of cuts, retouching and delineations with the use of clippers, razors and shavers. The student will use each tool for hair cutting and its additives. Also, they will use precautionary measures, hygiene procedures and safety measures before, during and after a haircutting service. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Beauty Clinic.

**LBAR 1201 Men's Hairstyling**  
**2 Credits**

**Prerequisites: None**

In this course, the student will apply the drying and styling techniques for the development of new trends and styles of modern and classic men's hairstyles. Students will use the instruments, equipment, and design products for the creation of various types and styles of hairstyles in an effective production time. Likewise, the student will employ the safety and hygiene measures required for the work environment according to the stipulations of the profession. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Beauty Clinic.

**LCOS 1013 Makeup: Lab**  
**2 Credits**

**Prerequisites: None; Corequisite: COSM 1301**

In this course, the student will analyze different makeup techniques considering the morphology of the face, skin conditions and the occasion. Students will develop natural makeup techniques, casual, gala makeup, sepia and bridal makeup, as well as new trends. The student will apply the skills of correct eyebrow arching, false eyelashes, and waxing and epilation procedures. Likewise, they will use techniques for good time management, safety measures, hygiene practices, and skills on handling equipment, instruments and products during makeup application. This course is part of the integration model between the Beauty Clinic and the

academic program. The student will perform direct tasks and services in the Beauty Clinic.

**LCOS 1014 Hair Cutting I: Lab**  
**2 Credits**

**Prerequisites: None**

In this course, the student will develop cutting skills of 0 and 180 degrees and its variants, according to the morphology of the client's face, age and occasion. The student will integrate the techniques of blocking, sectioning and angles to provide the desired cut to the client. Finally, the student will handle the cutting and styling tools according to safety, hygiene and production time standards. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Beauty Clinic.

**LCOS 1015 Hair Cutting II and III: Lab**  
**4 Credits**

**Prerequisites: LCOS 1014**

In this course, the student will develop cutting skills of 45 and 90 degrees, according to the instruments to perform the service, the morphology of the client's face, age and occasion. In addition, the student will integrate the techniques with razor, thinning scissors, different types of bangs, basic cut with different tools to offer the desired cut, following the cutting chart and safety measures. Students will design new cutting styles, following cutting and styling procedures and production time. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Beauty Clinic.

**LCOS 1016 Chemical Hair Processes**  
**2 Credits**

**Prerequisites: None**

In this course, the student will analyze the history, components, and products of the chemical processes of hair texture alteration. In addition, students will evaluate the conditions of the hair and the procedures, instruments, and techniques for the application of perms, straightening, and reverse. The student will also apply the procedures and techniques of perms, straightening and reverse.



**LCOS 1102 Hairstyles****2 Credits****Prerequisites: None**

The student will discuss the elements and principles of design, considerations and fundamentals of hairstyling; as well as new trends, instruments and equipment required to perform different types of hairstyles. Students will apply the fundamentals in the creation of modern hairstyles. In addition, they will develop techniques for backcombing, braids, loops, ringlets, among others. Finally, students will plan the effective production time, taking into consideration the corresponding safety and hygiene measures. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Beauty Clinic.

**LCOS 1202 Curls, Waves, and Ringlets****2 Credits****Prerequisites: None**

In this course, the student will develop different types of molding in wet hair to achieve figures and movements in the final result. Likewise, students will combine various procedures and techniques of hair rolling through the use of rolls, waves and rings of different diameters, according to the characteristics of the client's hair and the desired hairstyle. In addition, the student will integrate asepsis procedures, safety measures, instruments and equipment in the disciplines of coils, waves and rings.

**LTED 2007 Sculptural Nails: Lab****2 Credits****Prerequisites: LTED 2010**

In this course, the student will develop the skills and knowledge necessary for the application of sculptural nails, equipment handling, product control, and structure, maintenance and removal of the natural nail. In addition, the student will use asepsis and safety procedures to provide a quality service. Likewise, they will apply the correct use of materials for the creation of sculptural nails through demonstrations. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Beauty Clinic.

**LTED 2008 The Creative Touch****4 Credits****Prerequisites: None**

In this course, students will identify the appropriate tools and equipment used in the creation of nail styles. They will apply innovative techniques in the art of nail design and decoration to embellish and enhance them. Moreover, students will create different effects, such as relief designs, commercial techniques, encapsulations and fantasy, among others. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Beauty Clinic.

**LTED 2009 Gel Nails: Lab****2 Credits****Prerequisites: None**

In this course, the student will develop the techniques related to the types of gel in natural and artificial nails. Students will demonstrate the application and drying procedures of gel enamels, polygel and gel tips. Also, integrate the use of instruments, materials and equipment in natural and artificial nails. It will discuss the protocols to sterilize instruments, materials, equipment and work area. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Beauty Clinic.

**LTED 2010 Acrylic Nails: Lab****4 Credits****Prerequisites: None**

In this course, the student will use the necessary materials for the application, arrangement, maintenance, and removal of artificial nails according to the proper precautions and procedures. Students will perform exercises and demonstrations on the basic coating of natural and artificial nails, repair of breaks, and smile techniques. You will also develop manipulative skills through the correct use of materials and equipment. In addition, they will use safety and hygienic measures (asepsis) in the practices until they achieve their objective. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Beauty Clinic.



**MBAR 3000 Advanced Shaving Design for Men****2 Credits****Prerequisites: None**

In this course, students will examine advanced beard styling, its three main components, and its variations. In addition, they will use hygiene and safety measures when applying products and handling equipment and materials. Finally, they will evaluate classic and modern trends in shaping up or lining up the hairline and eyebrows. This course is part of the integration model between the Beauty Clinic and the academic program. Students will perform tasks and services directly in the Beauty Clinic.

**MBAR 3001 Eyebrows Hair Removal and its Techniques****2 Credits****Prerequisites: None**

In this course, students will analyze hair removal techniques and techniques for epilating parts of the face corresponding to the field of barbering, using products and tools relevant to each case. In addition, they will decide which procedure to follow in order to provide the client with a complete consultation before applying shaving, hair removal, and epilation techniques on the face. They will also determine the safety, public health, and hygiene measures required for a hair removal and epilation service.

**MBAR 3002 Sculptural Hair Design****2 Credits****Prerequisites: None**

In this course, students will evaluate the elements and foundations of sculptural hair design. They will also analyze cutting-edge designs taking into account the client's physical characteristics through consultations. Therefore, they will develop cutting skills and techniques using the right tools for sculptural design. This course is part of the integration model between the Beauty Clinic and the academic program. Students will perform tasks and services directly in the Beauty Clinic.

**MBAR 3003 Advanced Long to Short Textured Haircuts****4 Credits****Prerequisites: None**

In this course, students will develop skills in long and short textured haircuts, taking into account

current fashion trends. They will analyze the safety and asepsis measures to follow during a haircut service, before and after the client's consultation. In addition, they will combine advanced techniques and innovative styles using equipment such as conventional scissors, texture scissors, cutting knives, and razors. Finally, they will analyze the basics of haircut for an impeccable service. This course is part of the integration model between the Beauty Clinic and the academic program. Students will perform tasks and services directly in the Beauty Clinic.

**MBAR 3004 Makeup and Body Design****2 Credits****Prerequisites: None**

In this course, students will evaluate the anatomy and morphology of the face to select the appropriate make-up products and techniques. They will examine new make-up techniques and trends for corrections. They will also demonstrate male make-up skills at a professional level. Finally, they will create male make-up for photography, theater, television, film, and competitions.

**MBAR 3005 New World Trends (Haircut, Men Hairstyle)****4 Credits****Prerequisites: To have approved all previous courses except MBAR 3002**

In this course, students will analyze new trends in haircuts and hairstyles for men, taking into account international experience and fashion, as well as the rules for world competitions. In addition, they will creatively examine the use of equipment, tools, products, procedures, methods, and techniques for different haircuts and hairstyles to achieve a total look. Therefore, they will apply innovative techniques and styles to create artistic haircuts and hairstyles for men according to world trends.

**PBAR 1008 Externship****4 Credits****Prerequisites: To have passed all previous courses, except for BARB 1007**

In this course, the student will integrate the concepts, knowledge, and skills in a real work scenario as a barber stylist. In addition, they will develop competencies and aptitudes in different service areas, such as reception, inventory, hair washing, scalp treatments, and customer

consultation in a barbershop. It will also combine the skills of haircutting, shaving, facial, men's manicure, color techniques, drying and chemical processes. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Beauty Clinic.

#### **PCOS 1009P Externship**

##### **2 Credits**

**Prerequisites: COSM 1017, COSM 1102, COSM 1202, COSM 1301, COSM 1013, LCOS 1013, COSM 1103, LCOS 1102, LCOS 1202, COSM 1015, COSM 1018, LCOS 1014, LCOS 1016, LCOS 1015**Have

In this course, the student will integrate the concepts, knowledge and skills in a real work scenario as a beauty specialist. In addition, students will develop the specific competencies and skills for a beauty specialist in different service areas, such as reception, inventory, hair washing, scalp treatments, and client consultation in a beauty salon. It will also combine the skills of hair cutting, eyebrow arching, manicure, pedicure, make-up, facial, color techniques, chemical processes, hair styling techniques, rolls and rings. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Beauty Clinic.

#### **PTED 1078 Externship**

##### **2 Credits**

**Prerequisites: Passing all previous courses with the exceptions of COSM 1014 and LTED 2009**

In this course, the student will integrate practical and theoretical knowledge of nail technology in a beauty establishment or in an educational institution under the supervision of a practice supervisor or teacher. The student will perform tasks in the areas of manicure, pedicure, and application of products (acrylic, enamel, gel, among others), maintenance and removal of different types of artificial nails. In addition, they will apply hygiene and asepsis measures in the services requested by the client. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Beauty Clinic.

#### **TEDU 1007 Brush Design**

##### **4 Credits**

**Prerequisites: None**

In this course, the student will integrate the theory of color, the art of brush design and other diverse techniques of decoration for the embellishment of nails according to the needs and tastes of their future clients. Students will use the instruments, equipment and materials to decorate nails. In addition, you will combine strokes, elaborate designs, basic brush designs, floral designs, competition designs, landscape designs, special effects and others through practical exercises.

***CULINARY ARTS  
ACADEMIC PROGRAMS***

## Associate Degree in Gastronomy and Culinary Management

### DESCRIPTION

The Associate Degree Program in Gastronomy and Culinary Management will train students in the analysis of the fundamentals and procedures necessary for the planning and preparation of foods and beverages according to quality standards established by the gastronomic industry. Graduates of this program will be able to apply basic and advanced principles in the preparation of food and pastry products, taking into account nutrition principles, safety aspects in equipment and food handling, and cost and inventory control. In addition, they will be able to demonstrate knowledge of classic, modern, and innovative culinary techniques, menu design with local and international dishes, and the business requirements for the development, establishment, management, and supervision of a small or medium-sized business. Likewise, they will be able to apply their skills in the preparation and assembly of a buffet, banquet, or catering service, à la carte and table services presentation, and pairing offering as established in the basic level of their profession.

### PROGRAM COMPETENCIES

1. Apply theoretical and practical knowledge in their performance as professional cooks in food planning and preparation and in developing, managing, and supervising small and medium-sized businesses in the gastronomic industry.
2. Analyze information and procedures related to their professional field in the gastronomic industry in a logical and critical manner, making assertive decisions when providing any service.
3. Communicate innovative and creative ideas in an assertive and effective manner while performing their duties as professional cooks.
4. Use the available technological and computer-based means related to inventory management, food cost, and menu design that can make positive contributions to procedures and performance.

5. Demonstrate teamwork skills with a strong sense of responsibility, compliance with laws, respect for diversity, and good moral and ethical judgement as professional cooks, thereby boosting the profession.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

15 Credits in General Education Courses

27 Credits in Core Courses

30 Credits in Major Courses

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### 72 Total Credits

### GENERAL EDUCATION COURSES

ESPA 2101	College Spanish I	3
INGL 2101	College English I	3
MATE 2101	College Math I	3
CISO 2101	Introduction to Social Sciences	3
HUMA 2101	Introduction to Humanities	3
		<b>15</b>

### CORE COURSES

COLI 2101	Culinary History and Culture	2
COMP 2113	Introduction to Computers	3
LTUS 2093	Electronic Spreadsheets (Excel)	3
MGMT 2101	Management and Supervision of Food and Beverage I	4
MGMT 2102	Management and Supervision of Food and Beverage II	3
MGMT 2103	Ethics in the Food and Beverage Industry and Human	2
NUHS 2004	Nutrition, Hygiene, and Sanitation	4
MATE 2010	Mathematics for Culinary Arts	3
MIXO 2116	Principles of Mixology, Enology, and Pairing	3
		<b>27</b>

## MAJOR COURSES

COCI 2006	Culinary Techniques I (Basic) **	3
COLI 2106	Culinary Techniques II (Advanced)**	2
COCI 2008	Meat Cutting and Fish and Seafood Handling: Lab**	2
COLI 2108	Table Services: Lab	3
COCI 2113	Continental Cuisine: Lab**	2
COCI 2015	International Cuisine: Lab**	2
COCI 2016	Garde Manger, Breakfast, Banquets, and Catering**	2
COLI 2107	Modern Culinary Trends and Healthy Kitchen**	3
COCI 2014	Bakery and Confectionery I: Lab**	2
COCI 2017	Bakery and Confectionery II (Advanced): Lab**	2
FACI 2000	Menu Planning, Costs, and Inventory	2
COCI 2018	Creative Puerto Rican Cuisine**	1
COCI 2114	Externship*/**	4
		<b>30</b>
		<b>72</b>

## NOTES:

- \*The externship will be performed in establishments outside the Institution, according to availability. Specific centers, days or schedules are not guaranteed.
- \*\* This academic program has several courses that integrate with the extended laboratory of Cafeteria.
- This program is accredited by the ACFEFAC agency in the locations of: Ponce, Fajardo, Caguas, Manatí.
- In the Associate Degrees in Emergency Medical Technician - Paramedic and Associate Degree in Gastronomy & Culinary Management, core and specialty area courses must be passed with a grade no less than C.

## Diploma in Culinary Arts

### DESCRIPTIONS

The Culinary Arts Program prepares students to acquire the theoretical fundamentals and practical skills required to perform as a cooking professional. Graduates will be able to employ their skills in the application of cuts, cooking methods, preparation of desserts, sauces, and local and international dishes, as well as pairing combinations. They will also be able to demonstrate their knowledge in the safe handling of foods and kitchen equipment, the design of a variety of menus according to cost and inventory management, and in the correct procedure for a la carte and table services, as established by the basic level of their profession.

### PROGRAM COMPETENCIES

1. Apply both theoretical and practical knowledge in their performance as cooking professionals according to standards established by the culinary arts industry.
2. Analyze logically and critically information and procedures related to food management and preparation in the professional field, taking assertive decisions during the execution of any service.
3. Communicate ideas positively and efficiently while executing their functions as a cooking professional.
4. Use available technological and informational media for the contribution of innovative ideas in the procedures and executions of a professional specialized in culinary arts.
5. Demonstrate, as cooking professionals and culinary arts experts, their collaborative work skills with a high sense of responsibility, compliance with applicable laws, respect for diversity, and good moral and ethical judgement.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

2 Credits in General Education Courses

15 Credits in Core Courses

19 Credits in Major Courses

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**36 Total Credits**

### GENERAL EDUCATION COURSES

INGL 1109	Basic English I	2
		<b>2</b>

### CORE COURSES

PRTR 1006	Occupational Seminar	1
ORGA 1002	Culinary History and Kitchen Organization	2
NUHS 1002	Nutrition, Hygiene, and Sanitation	2
MATE 1224	Culinary Math	2
GAST 1001	Basic Culinary Techniques **	2
COCI 1034	Bakery and Confectionery**	2
INVE 1011	Storage, Cost Control and Inventory	2
DEST 1005	Supervisory Skills and Small Business Development	2
		<b>15</b>

### MAJOR COURSES

DESA 1004	Garde Manger, Breakfast, Banquets, and Catering **	2
CORT 1011	Meat, Fish, and Poultry Cutting **	2
FACI 1002	Facilities and Menu Planning	2
SERV 1003	Restaurant Service: Lab	2
COCI 1031	Continental Cuisine**	2
SERV 1004	Cafeteria Service: Lab**	2
COCI 1032	International Cuisine: Lab**	2
MARI 1003	Principles of Mixology, Enology, and Pairing	2
COCI 1033	Externship*/**	3
		<b>19</b>
		<b>36</b>

### TOTAL CREDITS

### NOTES:

- \*The externship will be performed at establishments outside the Institution, according to availability. Specific centers, days or schedules are not guaranteed.
- \*\* This academic program has several courses that integrate with the extended laboratory of Cafeteria.
- This program is accredited by the ACFEFAC agency in the locations of: Mayaguez, Ponce, Yauco, Moca, Fajardo, Aguadilla, Arecibo, Bayamón, Caguas, Manatí y el recinto de Escorial .

## Diploma in Mixology/Bartending

### DESCRIPTIONS

The Mixology/Bartending program will train students in the creation of new cocktails using local raw materials and novel techniques, and in the preparation of classic cocktails using standardized processes. Furthermore, they will apply knowledge for cost and inventory control, and for demonstrating best service practices, according to consumers' needs. Moreover, they will examine concepts and fundamentals related to coffee, with special emphasis on Puerto Rican coffee. They will apply the acquired knowledge and skills in coffee preparation with professional performance, according to market norm.

### PROGRAM COMPETENCIES

1. Apply theoretical knowledge as well as classical and modern skills and techniques in coffee management and in their professional performance as mixologists/bartenders.
2. Analyze information and procedures related to their professional field in mixology/bartending in a logical and critical manner.
3. Communicate ideas in a sharp and effective manner while performing their duties as mixologists/bartenders.
4. Use the technological and computer-based means available to research information and procedures related to the mixologist/bartender duties.
5. Demonstrate collaborative work skills with a strong sense of responsibility and in compliance with laws, respect for diversity, and good moral and ethical judgement in their professional field as mixologists/bartenders.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

2 Credits in General Education Courses

1 Credits in Core Courses

21 Credits in Major Courses

### 24 Total Credits

### GENERAL EDUCATION COURSES

INGL 2104	Conversational English	2
		<b>2</b>

### CORE COURSES

PRTR 1006	Occupational Seminar	1
		<b>1</b>

### MAJOR COURSES

BARR 1017	Introduction to Restaurants and Hospitality	1
BARR 2006	Customer Services and Table Service**	2
BARR 1018	Other Cocktail-Making Techniques (Working Flair and Competition Techniques)	1
VINO 1002	Wine Service	2
BEBI 1007	Applied Mixology	2
BEBI 1002	Beverage Preparation and Service I: Lab	2
BARR 1014	Introduction to the Bar	2
BARR 1015	Bar Operation and Management	2
BEBI 1003	Beverage Preparation and Service II: Lab	2
BEBI 1008	Barista Services**	2
PRAC 1018	Externship*/**	3
		<b>21</b>

### TOTAL CREDITS **24**

### NOTES:

- The externship will be performed in establishments outside the Institution, according to availability. Specific centers, days or schedules are not guaranteed.
- \*\* This academic program has several courses that integrate with the extended laboratory of Cafeteria.



# Diploma in International Pastry and Baking

## DESCRIPTIONS

The International Baking and Pastry Program prepares students in the theoretical foundations and practical skills required to work as a professional pastry cook. Graduates of this program will be able to apply their skills in the handling of piping tips and icing spatulas, cake coating, bread production, knife cuts, food cooking methods, sauces, and the preparation of local and international desserts. Furthermore, they will be able to demonstrate their knowledge of hygiene protocols, safe handling of food, and pastry equipment, the design of a variety of menus based on cost and inventory management, and the correct procedure of à la carte and table service, as established in their profession's basic level.

## PROGRAM COMPETENCIES

1. Apply theoretical and practical knowledge in their professional performance according with standards established by the culinary arts industry specialized in the area of baking, pastry making, and confectionery.
2. Analyze logically and critically information and procedures related to food management and preparation in the professional field, taking assertive decisions during the execution of any service.
3. Communicate ideas positively and efficiently while executing their functions as a baking professional.
4. Use available technological and informational media for the contribution of innovative ideas in procedures, information search, and executions of a professional specialized in baking and pastry making.
5. Demonstrate, as pastry making and confectionery professionals, their collaborative work skills with a high sense of responsibility, compliance with applicable laws, respect for diversity, and good moral and ethical judgement.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

2 Credits in General Education Courses

15 Credits in Core Courses

19 Credits in Major Courses

## 36 Total Credits

## GENERAL EDUCATION COURSES

INGL 1109 Basic English I	2
	<b>2</b>

## CORE COURSES

PRTR 1006	Occupational Seminar	1
ORGA 1002	Culinary History and Kitchen Organization	2
NUHS 1002	Nutrition, Hygiene and Sanitation	2
MATE 1224	Culinary Math	2
GAST 1001	Basic Culinary Techniques **	2
COCI 1034	Bakery and Confectionary**	2
INVE 1011	Storage, Cost Control, and Inventory	2
DEST 1005	Supervisory Skills and Small Business Development	2
		<b>15</b>

## MAJOR COURSES

DECO 1003	Cake Decoration I: Lab**	2
PANI 1003	Introduction to Bakery**	2
FACI 1011	Menu Planning and Buffets	2
CONF 1003	Confectionary I Lab**	2
DECO 1004	Cake Decoration II: Lab	2
CONF 1004	Confectionary II (Commercial): Lab **	2
CHOC 1002	Chocolate and Sugar Artistry: Lab**	2
PAST 1006	Technique Integration Lab	2
CONF 1018	Externship*/**	3
		<b>19</b>
		<b>36</b>

## TOTAL CREDITS

## NOTES:

- The externship will be performed in establishments outside the Institution, according to availability. Specific centers, days or schedules are not guaranteed.
- \*\* This academic program has several courses that integrate with the extended laboratory of Cafeteria.
- This program is accredited by the ACFEFAC agency in the locations of: Mayaguez, Ponce, Yauco, Moca, Fajardo, Aguadilla, Arecibo, Bayamón, Caguas, Manatí y el recinto de Escorial.

## ***CULINARY ARTS COURSE DESCRIPTIONS***

**BARR 1014 Introduction to the Bar**  
**2 Credits****Prerequisites: None**

In this course, the student will analyze the history of the bar, its structure and typology, as well as the occupation of bartender, its characteristics, the tasks to be performed, and its professional development. In addition, students will identify the laws, regulations and norms that govern the profession at local and international level. Classify basic bar and bartender equipment and utensils, raw materials for the preparation of alcoholic and non-alcoholic beverages, and beers according to their type. Likewise, they will evaluate the basic operation of a bar from an administrative perspective and the most effective way to implement sanitation, hygiene and safety processes in the workplace.

**BARR 1015 Bar Operation and Management**  
**2 Credits****Prerequisites: None**

In this course, students will learn about the fundamentals of beverage administration, operation, and cost control, known as F&B, a business unit in charge of maintaining internal controls of the items consumed in this department. Students will acquaint themselves with professional terminology and the process for the recruitment, selection, supervision, and training of personnel. Finally, students will prepare inventory reports and documents related to current marketing, as well as the application for permits required by state and federal laws for the operation of a food and beverage establishment.

**BARR 1017 Introduction to Restaurants and Hospitality**  
**1 Credit****Prerequisites: None**

In this course, the student will examine the historical development of food and beverages, and the liquor, gastronomic, and tourism industries of Puerto Rico. In addition, students will identify the places of tourist importance, lodges and inns. In addition, the student will describe the gastronomic and entertainment venues in Puerto Rico.

**BARR 1018 Other Cocktail-Making Techniques (Working Flair and Competition Techniques)****1 Credit****Prerequisites: BARR 1014**

In this course, students will demonstrate basic knowledge and skills in the new trends in the area of working flair and competition techniques. They will also create new techniques, movements and basic choreographies in the preparation of cocktails. In addition will design beverages often used in the working flair.

**BARR 2006 Customer Service and Table Service**  
**2 Credits****Prerequisites: None**

In this course, the student will develop knowledge about the customer service cycle as an element of competitiveness in the food and beverage service industry. Students will identify the basic concepts of service, types of customers and their needs. They will also differentiate table etiquette, types of food and beverage service, as well as the different types of restaurants and ways of billing. In addition, they will demonstrate in the laboratory how to hold glassware and tableware for beverage service from the bar to the table.

This course is part of the integration model between the cafeteria and other businesses associated to the academic program, therefore the student will perform direct tasks and services in the cafeteria laboratory and other related businesses.

**BEBI 1002 Beverage Preparation and Service Lab I**  
**2 Credits****Prerequisites: None**

In this course, the student will identify the diverse recipes of classic drinks, the choice of ingredients, and the presentation and service techniques in rum, vodka, and gin based drinks. In addition, the student will discuss the history, composition processes and the denomination or origin of distillates. Finally, students will demonstrate the elaboration of classic drinks

**BEBI 1003 Beverage Preparation and Service Lab II****2 Credits****Prerequisites:** BEBI 1002

In this course, the student will examine the historical contexts, production methods, and organoleptic analysis of tequila, pisco, cognac, mezcal, whiskey, vermouth, and cordial distillates. They will also apply the methods of elaboration and confection, presentation techniques and service of classic cocktails based on the above distillates. Also, will illustrate the type of glassware appropriate for the use of each cocktail, according to the safety rules and the required equipment.

**BEBI 1007 Applied Mixology****2 Credits****Prerequisites:** BEBI 1002; **Corequisite:** BEBI 1003

In this course, the student will examine the most updated tools, techniques, and ingredients in relation to the operation, handling, and product of applied mixology. They will also evaluate the contributions of significant figures in the modern history of mixology. At the same time, students will analyze avant-garde techniques in mixology and sustainability in the cocktail industry. At the end of the course, the students will elaborate recipes and signature cocktails applying mixology techniques.

**BEBI 1008 Barista Services****2 Credits****Prerequisites:** BARR 2006

In this course, the student will apply knowledge and skills in the preparation and service of beverages in the barista industry and in the administration of this type of business. Students will classify coffee, its derivative beverages, and the equipment used in their preparation, according to their characteristics. In addition, they will integrate different techniques for the preparation of coffee-based beverages. Likewise, students will use the pertinent hygiene and safety practices and protocols for the use of the equipment. This course is part of the integration model between the cafeteria and the academic program; therefore, the student will perform direct tasks and services in the cafeteria laboratory.

**CHOC 1002 Chocolate and Sugar Artistry: Lab****2 Credits****Prerequisites:** NUHS 1002, COCI 1034

In this course, the student will apply the correct methods for handling chocolate, namely tempering and melting. Students will elaborate different sweets with chocolate and sugar as main ingredients, such as bonbon, lollipop, crunchy and hard candy, among other confections. They will also create chocolate sculptures by carving, smoothing and mounting for exhibition.

This course is part of the integration model between the cafeteria and other businesses associated to the academic program, therefore the student will perform direct tasks and services in the cafeteria laboratory and other related businesses.

**CISO 2101 Introduction to the Social Sciences****3 Credits****Prerequisites:** None

Upon completion of this course, the student will analyze fundamental concepts of social sciences, starting from the history, evolution, and development of society. Argue issues across disciplines that make up social sciences such as history, anthropology, sociology, and psychology. In addition, students will develop and explain various social content researches based on current problems of the society to which they belong.

**COCI 1031 Continental Cuisine****2 Credits****Prerequisites:** NUHS 1002, GAST 1001, CORT 1011

In this course, the student will analyze the gastronomy of different countries of the American continent and the Caribbean. Students will also prepare and prepare typical dishes of worldwide importance from countries in North, Central and South America, as well as some Caribbean islands. They will demonstrate their preparations taking into consideration nutritional value, hygiene and sanitation.

This course is part of the integration model between the cafeteria and other businesses associated to the academic program, therefore the student will perform direct tasks and services

in the cafeteria laboratory and other related businesses.

**COCI 1032 International Cuisine Lab**  
**2 Credits**

**Prerequisites:** NUHS 1002, GAST 1001, CORT 1011

In this course, the student will compare the cultural aspects related to food preparation in different countries. Students will design menus based on the combination of international and regional dishes. They will develop techniques related to the preparation and preparation of international dishes of worldwide importance. Students will discuss the protocols of hygiene, health and safety in the use and handling of food, instruments and kitchen equipment.

This course is part of the integration model between the cafeteria and other businesses associated to the academic program, therefore the student will perform direct tasks and services in the cafeteria laboratory and other related businesses.

**COCI 1033 Externship**  
**3 Credits**

**Prerequisites:** To have passed all previous courses, except for PRTR 1006, MARI 1003, INGL 1109

In this course, the student will apply, within a real work environment, the knowledge and skills acquired during the study program. They will demonstrate processes and principles on safety and hygiene in food handling. Students will perform functions in the preparation and service of the dishes on the menu, as well as in assigned tasks related to kitchen operation.

This course is part of the integration model between the cafeteria and other businesses associated to the academic program, therefore the student will perform direct tasks and services in the cafeteria laboratory and other related businesses.

**COCI 1034 Bakery and Confectionery**  
**2 Credits**

**Prerequisites:** None

In this course, the student will analyze the significant historical events and the different techniques and preparation styles in pastry, confectionery, and basic bakery. Students will apply knowledge in the use of equipment, utensils, and materials of pastry and

confectionery taking into consideration hygiene and safety in the workplace. Likewise, they will create a variety of international and Puerto Rican products taking into account their nutritional value and presentation.

This course is part of the integration model between the cafeteria and other businesses associated to the academic program, therefore the student will perform direct tasks and services in the cafeteria laboratory and other related businesses.

**COCI 2006 Culinary Techniques I (Basic)**  
**3 Credits**

**Prerequisites:** None

In this course, the student will apply wet and dry cooking methods, as well as technical skills related to bases, broths, and sauces, with emphasis on the production of mother sauces and their derivatives most used in modern cuisine. Likewise, they will use a combination of starches in the preparation of sauces and emulsions, as color, flavor and stability agents. In addition, they will demonstrate knowledge of safety, hygiene and the use of instruments in food preparation.

This course is part of the integration model between the cafeteria/food truck (where applicable) and other businesses associated to the academic program, therefore the student will perform direct tasks and services in the cafeteria/food truck laboratory and in other related businesses.

**COCI 2008 Meat Cutting and Fish and Seafood Handling Lab**  
**2 Credits**

**Prerequisites:** None

In this course, the student will examine the complex nature of the production and preparation of meat, poultry, fish, and seafood. In addition, students will identify the different types of meat cuts, such as primal cuts and portions, using the Meat Buyer's Guide. They will also apply the principles of regulatory, health and safety agencies, the grades of each cut of meat, storage, testing, control methods and the costs involved in each cut. Additionally, students will practice the handling of fish and seafood cuts, as well as the necessary safety measures to work with them.

This course is part of the integration model between the cafeteria/food truck (where

applicable) and other businesses associated to the academic program, therefore the student will perform direct tasks and services in the cafeteria/food truck laboratory and in other related businesses.

### **COCI 2014 Bakery and Confectionery I Lab 2 Credits**

#### **Prerequisites: None**

In this course, students will acquire the skills to prepare classic bakery and confectionery used commercially in hotels and restaurants. They will practice the confection of French pastry, shortbread, cakes, fruit tarts, cookies, and breads, among others. In addition, identify the utensils and equipment used in pastry and confectionery. Likewise, they will apply hygiene and safety measures i measures in the preparation of pastry and confectionery. This course is part of the integration model between the cafeteria/food truck (where applicable) and other businesses associated to the academic program, therefore the student will perform direct tasks and services in the cafeteria/food truck laboratory and in other related businesses.

### **COCI 2015 International Cuisine Lab**

#### **2 Credits**

#### **Prerequisites: COCI 2006, COCI 2008, NUHS 2004**

In this course, the student will apply the rules of hygiene and safety, cooking principles and methods for food preparation, characteristics, cultures, and styles of international cuisine. They will evaluate the cuisines of the Old World, including the regions of the European Union, Africa, Asia, Russia, the Mediterranean, among others. It will create dishes with native ingredients and different techniques characteristic of some of the regions of the world and the culinary influences in international cuisine.

This course is part of the integration model between the cafeteria/food truck (where applicable) and other businesses associated to the academic program, therefore the student will perform direct tasks and services in the cafeteria/food truck laboratory and in other related businesses.

### **COCI 2016 Garde Manger, Breakfast, Banquets, and Catering 2 Credits**

#### **Prerequisites: COCI 2006**

In this course, the student will develop the necessary skills to prepare nutritious and balanced breakfasts, brunches, eggs and their variants, beverages, dressings, vinaigrettes, salads, sandwiches, forcemeat, among others, as well as the mastery of hygiene and safety processes for food preparation. Students will plan nutritious menus specialized in breakfast and brunches through cutting, cooking and presentation techniques. In addition, they will practice the preparation and assembly of hot and cold cut trays, and fruit and vegetable carving for banquets and catering in hotels, restaurants and private activities.

This course is part of the integration model between the cafeteria/food truck (where applicable) and other businesses associated to the academic program, therefore the student will perform direct tasks and services in the cafeteria/food truck laboratory and in other related businesses.

### **COCI 2017 Bakery and Confectionery II (Advanced) Lab**

#### **2 Credits**

#### **Prerequisites: COCI 2014**

In this course, the student will develop mastery of pastry and confectionery and the management of hygiene and safety measures for desserts and edible confections. In addition, students will elaborate creams, sauces, sorbets and butters, mousse, phyllo, crepes, petits fours, chocolate works, caramel, royal icing, sugar gum paste, and plated and classic desserts. Also, will design decorations, dessert presentations and plating aligned to cold and hot commercial pastries.

This course is part of the integration model between the cafeteria/food truck (where applicable) and other businesses associated to the academic program, therefore the student will perform direct tasks and services in the cafeteria/food truck laboratory and in other related businesses.



**COCI 2018 Creative Puerto Rican Cuisine****1 Credit****Prerequisites:** COCI 2006, COCI 2008, NUHS 2004

In this course, the student will evaluate the origin and cultural influences in the evolution of Puerto Rican gastronomy. Likewise, they will apply the basic methods and new gastronomic trends with ingredients, food, agricultural products, and local resources. They will create new creative recipes with the fusion of classic and modern culinary techniques, promoting the traditions of Puerto Rico.

This course is part of the integration model between the cafeteria/food truck (where applicable) and other businesses associated to the academic program, therefore the student will perform direct tasks and services in the cafeteria/food truck laboratory and in other related businesses.

**COCI 2113 Continental Cuisine Lab****2 Credits****Prerequisites:** COCI 2006, COCI 2008, NUHS 2004

In this course, the student will analyze the importance of continental cuisine in today's world of gastronomy, as well as the diverse cultures and their legacy in the kitchen. In addition, they will apply knowledge and skills in the preparation of established and autochthonous recipes from the different continents of the world. They will practice cooking techniques and methods that characterize and highlight the preparation of dishes from different countries and cultures.

This course is part of the integration model between the cafeteria/food truck (where applicable) and other businesses associated to the academic program, therefore the student will perform direct tasks and services in the cafeteria/food truck laboratory and in other related businesses.

**COCI 2114 Externship****4 Credits****Prerequisites:** To have passed all previous courses except for MIXO 2116

In this course, the student will apply the skills and techniques acquired in the gastronomic industry such as food safety, use and handling of equipment and utensils, various cooking methods, plating techniques, among others in a work scenario. They will develop skills related to

the daily procedures of a food and beverage operation, such as inventory processes, purchase orders and menu analysis. Students will perform tasks related to the preparation of various dishes in a real work environment, according to the different standards and policies of the organization.

This course is part of the integration model between the cafeteria/food truck (where applicable) and other businesses associated to the academic program, therefore the student will perform direct tasks and services in the cafeteria/food truck laboratory and in other related businesses.

**COLI 2101 Culinary History and Culture****2 Credits****Prerequisites:** None

In this course, the student will analyze the history and evolution of the kitchen as a foundation to understand the environment, functions, job distributions, and opportunities in gastronomy. Students will connect the areas and specialties of the gastronomic industry such as food and beverage preparation with an economic and social perspective. Examine the occupational descriptions of the cook within the culinary industry. Organize a management plan for the work team in the kitchen.

**COLI 2106 Culinary Techniques II****(Advanced)****2 Credits****Prerequisites:** COCI 2006

In this course, the student will apply cooking skills, techniques, and methods related to the preparation of starches, sauces, consommés, soups, and stews. In addition, the student will use equipment and instruments used by the chef in their workstation. Finally, the student will employ food presentation techniques that harmonize with the nutritional value that a dish prepared by a chef should contain.

This course is part of the integration model between the cafeteria/food truck (where applicable) and other businesses associated to the academic program, therefore the student will perform direct tasks and services in the cafeteria/food truck laboratory and in other related businesses.



**COLI 2107 Modern Culinary Trends and Healthy Kitchen****3 Credits****Prerequisites:** COLI 2106, COCI 2008, NUHS 2004

In this course, the student will apply everything related to new trends in gastronomy, gastronomic fashion and new styles, both locally and internationally. They will also evaluate recipes with cooking methods beneficial to health. In addition, they will create balanced meals and substitutions for a good diet, taking as a starting point the nouvelle cuisine from its emergence to the present day.

This course is part of the integration model between the cafeteria/food truck (where applicable) and other businesses associated to the academic program, therefore the student will perform direct tasks and services in the cafeteria/food truck laboratory and in other related businesses.

**COLI 2108 Table Services Lab****3 Credits****Prerequisites:** None

In this course, students will evaluate banquet presentation in all its variations, the history, and new trends in the service. They will examine the variety of services, functions, and managerial tasks of restaurant operation and management. Additionally, students will practice ways of serving food in the American, Russian, French, and buffet, as well as everything related to the production and presentation of food and beverage services. They will apply the principles of customer service, sanitation and hygiene in table service for an event or banquet in hotels or restaurant.

**COMP 2113 Introduction to Computers****3 Credits****Prerequisites:** None

In this course, the student will examine the history and evolution of the various equipment and programs for data processing and the interrelation of the user and technology and will manipulate a computer to simplify jobs and tasks. In addition, will analyze information and communication technology to maximize productivity and efficiency in their daily lives.

**CONF 1003 Confectionary I Lab****2 Credits****Prerequisites:** NUHS 1002, COCI 1034

In this course, the student will demonstrate skills in the preparation of different types of whipped cream for the preparation of toppings for sponge cakes, puddings, as well as French, Italian, and German cakes, among others. Students will apply techniques of assembly, dessert plating and decoration with marzipan, butter cream, ganache, laminated pastry and meringue. In addition, they will create different fillings, for example, pastry cream, Bavarian cream, mousse and icings of different fruits as part of the dessert assembly.

This course is part of the integration model between the cafeteria and other businesses associated to the academic program, therefore the student will perform direct tasks and services in the cafeteria laboratory and other related businesses.

**CONF 1004 Confectionary II (Commercial): Lab****2 Credits****Prerequisites:** NUHS 1002, COCI 1034, CONF 1003

In this course, the student will develop skills for the preparation of petit fours, pâte à choux, sweets based on laminated doughs such as puff pastry, croissant and danish. Students will elaborate the fillings to be used with the different laminated doughs and the most common shapes used in the confectionery industry such as palm trees, bear claw, voulavent, coffee cakes, among others. In addition, it will apply skills in the mass production of commercial products such as donuts, meat, guava and cheese pastries, sponge cakes, muffins, scones, mini cakes, among others.

This course is part of the integration model between the cafeteria and other businesses associated to the academic program, therefore the student will perform direct tasks and services in the cafeteria laboratory and other related businesses.

**CONF 1018 Externship****3 Credits**

**Prerequisites:** To have completed all previous courses, except for PRTR 1006; PAST 1006; INGL 1109

The student will apply, within a real work environment, the knowledge and skills acquired in bakery and pastry for hotels, restaurants, bakeries, confectioneries, among others. They will evaluate inventory control processes and hygiene and safety protocols in food handling. It will use knowledge related to the different functions necessary for the preparation of breads, desserts, cakes, sweets and presentation of dishes in the field of bakery and pastry.

This course is part of the integration model between the cafeteria and other businesses associated to the academic program, therefore the student will perform direct tasks and services in the cafeteria laboratory and other related businesses.

**CORT 1011 Meat, Fish, and Poultry Cutting  
2 Credits**

**Prerequisites:** NUHS 1002, GAST 1001

In this course, the student will examine the operation of regulatory agencies and their requirements. In addition, they will apply the concepts of hygiene and sanitation in the storage and handling of proteins. Students will practice meat cuts such as beef, pork, poultry, fish and seafood according to the Meat Buyers Guide and the Seafood Inspection Program.

This course is part of the integration model between the cafeteria and other businesses associated to the academic program, therefore the student will perform direct tasks and services in the cafeteria laboratory and other related businesses.

**DECO 1003 Cake Decoration I: Lab****2 Credits**

**Prerequisites:** NUHS 1002, COCI 1034

In this course, students will make various cake decorations out of sugar, chocolate, buttercream, marzipan sheets, rolled fondant, and pastillage. They will assemble a traditional single tier cake as well as multitiered cakes using various lamination techniques. In addition, they will elaborate a theme cake using the techniques learned.

This course is part of the integration model between the cafeteria and other businesses

associated to the academic program, therefore the student will perform direct tasks and services in the cafeteria laboratory and other related businesses.

**DECO 1004 Cake Decoration II: Lab****2 Credits**

**Prerequisites:** NUHS 1002, COCI 1034, DECO 1003

In this course, the student will develop skills in the preparation of different cake decorations, using various techniques. Students will evaluate the correct use of the types of toppings, laminated paste, advanced pastillage flowers, sugaring, draping, quilting, drapes, bows and other avant-garde decoration techniques. In addition, it will apply the techniques learned in the preparation of themed cakes.

**DESA 1004 Garde Manger, Breakfast, Banquets, and Catering****2 Credits**

**Prerequisites:** NUHS 1002, GAST 1001

In this course, the student will prepare breakfasts, drinks, dressings, infused or emulsified vinaigrettes, salads, sandwiches, hors d'oeuvres, canapés, and others. In addition, they will apply techniques in the preparation of egg dishes and their variants using different forms and cooking methods. Develop nutritious menus specialized in breakfast and brunch by means of cutting, cooking and presentation techniques. Likewise, students will use techniques for the preparation and assembly of hot and cold cut trays and carving of fruits and vegetables widely used in banquet and catering presentations, hotel and restaurant activities.

This course is part of the integration model between the cafeteria and other businesses associated to the academic program, therefore the student will perform direct tasks and services in the cafeteria laboratory and other related businesses.

**DEST 1005 Supervisory Skills and Small Business Development****2 Credits**

**Prerequisites:** None

In this course, the student will analyze the important processes in planning the opening of small food and beverage businesses and the labor laws of Puerto Rico. They will compare the number of personnel needed for each position in

the recruitment and training processes according to the type of business. In addition, it will establish the areas related to business administration, such as feasibility study, business plan development, financing, marketing, production, organization, supervision and management..

**ESPA 2101 College Spanish I**  
**3 Credits**

**Prerequisites: None**

In this course, students will apply the basic rules of spelling, grammar, and syntax when expressing themselves orally or in writing. They will analyze literary genres, new vocabulary, and writing skills. Students will value the importance of language in the proper application of linguistic knowledge and the rules that govern oral and written communication.

**FACI 1002 Facilities and Menu Planning**  
**2 Credits**

**Prerequisites: None**

In this course, the student will identify the essential factors for the creation of a menu, including products, quotations, equipment, and tools for the design of the facilities. In addition, students will apply the concepts of nutrition and special diets in the planning of dishes, adapting them to the needs of the diners. Also, determine recipes to assign costs to the menu in a standardized manner.

**FACI 1011 Menu Planning and Buffets**  
**2 Credits**

**Prerequisites: None**

In this course, the student will analyze the history of the buffet, its relationship with the kitchen, types of buffets, dishes, setups, table service and decoration. They will examine the parts that compose the physical facilities of a pastry shop. Apply the basic techniques for the planning and preparation of dessert menus in hotels, bakeries, pastry shops, restaurants and institutions. In addition, evaluate the relationship between menu planning, purchasing, production and food services.

**FACI 2000 Menu Planning, Costs, and Inventory**  
**2 Credits**

**Prerequisites: MATE 2010**

In this course, the student will plan the types of menus and the organization process for the preparation of a menu. In addition, they evaluate the corresponding types of menus, according to the concept of the establishment. Likewise, the student will apply the principles of basic accounting to the food service industry, beverages, and recipe conversion. Also, establish a purchase requisition and the proper procedures for the receipt, storage, and recording of materials purchased by requisition..

**GAST 1001 Basic Culinary Techniques**  
**2 Credits**

**Prerequisites: None**

In this course, the student will identify the equipment, tools, utensils, and instruments necessary for the operation of the kitchen. In addition, develop techniques and skills in the practice of cutting and measuring. They will also classify the reaction and composition of starches according to cooking methods. In addition, they will prepare different styles of sauces, soups and broths according to their variations.

This course is part of the integration model between the cafeteria and other businesses associated to the academic program, therefore the student will perform direct tasks and services in the cafeteria laboratory and other related businesses.

**HUMA 2101 Introduction to Humanities**  
**3 Credits Prerequisites: None**

In this course, the student will examine the fundamentals of the evolution of humanity and the historical development of the artistic, scientific, religious, and political movements of the civilizations that influenced the western world. In addition, students will distinguish the importance of the humanistic legacy and the Judeo-Christian values that led to the evolution and development of Western civilization. Likewise, they will value the historical processes that shaped the legacies of the Ancient and Middle Ages that are reflected in humanity today..

**INGL 1109 Basic English I****2 Credits****Prerequisites: None**

In this course, students will demonstrate command of the basic rules of English grammar and their usage both orally (listening and speaking) and in writing (reading and writing). They will compose sentences by using the standard conventions of English language. In addition, students will reinforce their vocabulary knowledge for a better understanding of English in everyday situations.

**INGL 2101 College English I****3 Credits****Prerequisites: None**

In this course, students will demonstrate proper use of the English language with a primary focus on syntax, grammar, punctuation, and spelling. Students will distinguish the parts of speech and variety of sentences emphasizing the verb tenses. Also, they will produce clear, well developed, and well-organized sentences, messages, paragraphs, and short compositions using correct capitalization, punctuation, and syntax.

**INGL 2104 Conversational English****2 Credits****Prerequisites: INGL 1110**

In this course, students will examine phonological patterns, vocabulary, and the grammatical structures of utterances of basic English. Furthermore, they will apply social and functional formulas of the language. Students will demonstrate listening, reading, writing, and verbal communication skills in natural speech and in structured situations.

**INVE 1011 Storage, Cost Control, and Inventory****2 Credits****Prerequisites: MATE 1224**

In this course, students will apply the techniques for the purchase, receipt, storage, and registration of food and beverages requested by requisitions. In addition, the student will distinguish the state and federal laws that establish controls in the food and beverage industry. Employ the documentation and information required for the preparation of reports, the calculation of labor value and food and beverage costs, and the administration of permit applications, reports, and inventories. Likewise, they will identify the

commercial aspects of the operation of a business and the role of the future employee in the control systems in the food and beverage industry.

**LTUS 2093 Electronic Spreadsheets (Excel)****3 Credits****Prerequisites: None**

In this course, the student will apply basic skills to work with Microsoft Excel tools. They will handle spreadsheets to organize data by applying formulas and functions. In addition, will modify data within a spreadsheet, as well as insert tables, graphs and write reports.

**MARI 1003 Principles of Mixology, Enology, and Pairing****2 Credits****Prerequisites: FACI 1002, GAST 1001, COCI 1031, NUHS 1002, CORT 1011)**

In this course, students will compare the cultural aspects related to food preparation in different countries. They will design menus based on the combination of international and regional dishes. Develop techniques related to the preparation and preparation of international dishes of worldwide importance. Discuss the protocols of hygiene, health and safety in the use and handling of food, instruments and kitchen equipment.

**MATE 1224 Culinary Math****2 Credits****Prerequisites: None**

In this course, the student will interpret the basic mathematical operations to make conversions of cooking and baking recipes. Likewise, they will apply the knowledge of weighing and measurements for their use during the planning and conversion of recipes. Also, will calculate the quantities of ingredients based on proportions, percentages and servings, as well as their cost and the cost of the utilities of a recipe.

**MATE 2010 Mathematics for Culinary Arts****3 Credits****Prerequisites: MATE 2101**

In this course, the student will solve basic mathematical operations (addition, subtraction, multiplication, and division) to make conversions of cooking and baking recipes in food preparation planning. Students will apply mathematical operations in the conversion of recipes, as well as in the weighing and measuring of ingredients to

be used during preparation. Likewise, they will calculate the cost per dish of a menu to be offered to the client.

### **MATE 2101 College Mathematics I**

**3 Credits**

**Prerequisites: None)**

In this course, the student will analyze the characteristics of the set of real numbers, the concepts of ratios, proportions and percentages used in everyday life. Likewise, students will apply the concepts of equations and linear inequalities of one variable in everyday situations. Likewise, they will examine the fundamental concepts of algebraic expressions and polynomials. In addition, they will evaluate the concepts of measurement and conversion factors in the solution of daily and professional problems.

### **MGMT 2101 Management and Supervision of Food and Beverage I**

**4 Credits**

**Prerequisites: None**

In this course, the student will analyze the entrepreneurial opportunities and the process necessary to establish a business. Students will examine the critical factors related to the conception, initiation, and development of a food and beverage business, emphasizing on the administration and management process of this type of enterprise. Develop menus, according to the type of operation, taking into consideration the management of operational costs. In addition, research on edible products available by category and type of population.

### **MGMT 2102 Management and Supervision of Food and Beverage II**

**3 Credits**

**Prerequisites: MGMT 2101**

In this course, the student will interpret the financial aspects of study and marketing analysis and strategies from the facilities, and the feasibility study to the equipment and everything necessary to operate it in terms of patents and permits required. In addition, you will evaluate sustainable development as part of procedures, purchasing, manufacturing and waste management to achieve responsible business leadership. Likewise, analyze the labor and operational supervision of a business as an integral part of human resources. Finally, will create a food and beverage business plan,

following the standards and stipulations of the Small Business Administration and the Economic Development Bank for Puerto Rico.

### **MGMT 2103 Ethics in the Food and Beverage Industry and Human Resources**

**2 Credits**

**Prerequisites: None**

In this course, the student will distinguish the standards of conduct, the basic terms and codes of gastronomic ethics, as well as the standards of sanitation, safety, hygiene, and nutrition in the food they prepare. Relate honesty, respect for morals and diversity as part of professional integrity in the process of recruiting, training and motivating human resources in the work environment of the food and beverage industry. Additionally, will determine the skills and styles of leadership and supervision in the organizational composition of the company.

### **MIXO 2116 Principles of Mixology, Enology, and Pairing**

**3 Credits**

**Prerequisites: None**

In this course, the student will examine the history and fundamentals of mixology and the different methods of preparing alcoholic and non-alcoholic beverages. Students will evaluate the variations of wines, distillates, and beverages, as well as the fermentation, distillation, and bottling processes. They will also apply tasting and pairing techniques for the creation of gastronomic menus.

### **NUHS 1002 Nutrition, Hygiene, and Sanitation**

**2 Credits**

**Prerequisites: None**

In this course, the student will identify the state and federal agencies that establish and regulate the food code and the legal consequences of a work accident. They will examine the protocols related to the safe handling of food, hygiene, and sanitation in the work areas. In addition, they will apply principles of nutrition, hygiene and sanitation in order to use them as regulations for the preparation and processing of all kinds of food.



**NUHS 2004 Nutrition, Hygiene, and Sanitation****4 Credits****Prerequisites: None**

In this course, the student will examine the principles of nutrition, hygiene, safety, and sanitation for the preparation and processing of all kinds of food. In addition, students will analyze the safety standards in the work environment and the legal implications in accident situations. They will also determine how to prevent hygiene and sanitation problems in establishments.

**ORGA 1002 Culinary History and Kitchen Organization****2 Credits****Prerequisites: None**

In this course, the student will analyze the history and evolution of the kitchen as a foundation for understanding the environment, functions, hygiene and safety, as well as job classifications and labor market opportunities. Students will apply knowledge about the tasks of organization, classification, costs, and presentation of kitchen equipment. Explore cooking methods, culinary terminology, and the basic principles of the art of seasoning and flavor.

**PANI 1003 Introduction to Bakery****2 Credits****Prerequisites: NUHS 1002, COCI 1034**

In this course, the student will analyze basic principles related to baking. They will evaluate safety and hygiene standards in production areas. In addition, they will apply terms and processes in the production of a variety of breads, raw materials, products, equipment, and commercial and international doughs.

This course is part of the integration model between the cafeteria and other businesses associated to the academic program, therefore the student will perform direct tasks and services in the cafeteria laboratory and other related businesses.

**PAST 1006 Technique Integration Lab****2 Credits****Prerequisites: To have completed all previous courses, except for PRTR 1006; CONF 1018; INGL 1109**

In this course, students will use techniques acquired during their academic preparation to successfully integrate into the labor field. They

will analyze business situations related to the gastronomic industry, such as the preparation of quotations, adjustments to their proposals according to the assigned budget, the resolution of unexpected situations, and the offering of appropriate alternatives according to the events presented, among others. In addition, they will apply skills related to the role and functions of a professional in the pastry industry, such as the preparation of forms and the drafting of various proposals adjusted to the client's needs.

**PRAC 1018 Externship****3 Credits****Prerequisites: To have passed all previous courses, except for PRTR 1006 and BEBI 1008**

In this course, the student will integrate the concepts, knowledge and skills as a student intern of the institution in a real work scenario, under the guidance of the internship supervisor and the employer. They will combine beverage and cocktail preparation techniques, in addition to wine service presentation methods, customer service, table set-up and banqueting, bar management, coffee and other beverage service. Finally, apply health, safety and ethical practices in the food and beverage industry.

This course is part of the integration model between the cafeteria and other businesses associated to the academic program, therefore the student will perform direct tasks and services in the cafeteria laboratory and other related businesses.

**PRTR 1006 Occupational Seminar****1 Credit****Prerequisites: None**

In this course, the student will analyze the laws and regulations of the food and beverage industry. Likewise, students will apply the knowledge and skills necessary to enter the labor market. Develop various strategies for the acquisition and retention of employment, through orientations and workshops. In addition, design a professional portfolio that includes their skills and abilities in the food and beverage industry.

**SERV 1003 Restaurant Service Lab****2 Credits****Prerequisites: None**

In this course, students will analyze the variety of services, functions, and managerial tasks of

restaurant operation and management. They will practice the following service types: American, Russian, French, Chinese, buffet, and everything related to production and presentation of food and beverage services. Also, they will demonstrate skills in applying customer service, sanitation, and hygiene principles.

### **SERV 1004 Cafeteria Service Lab**

#### **2 Credits**

**Prerequisites:** NUHS 1002, GAST 1001, CORT 1011

In this course, the student will apply the principles and successful practices of good service in a cafeteria. They will integrate the techniques of food and beverage service, table service, and the use of common equipment in this type of business. In addition, will combine the skills of mise en place, cleaning, hygiene, sanitation and safety of the work area and equipment before, during and after service.

This course is part of the integration model between the cafeteria and other businesses associated to the academic program, therefore the student will perform direct tasks and services in the cafeteria laboratory and other related businesses.

### **VINO 1002 Wine Service**

#### **2 Credits**

**Prerequisites:** None

In this course, the student will analyze the history, elaboration, and aging of the different types of wines. Furthermore, students will categorize the main types of grapes and producing regions. In addition, will demonstrate knowledge of wine service etiquette and wine and food pairing techniques.



***HEALTH  
ACADEMIC PROGRAMS***

## Associate's Degree in Emergency Medical Technician- Paramedic

### DESCRIPTION

The Associate Degree in Emergency Medical Technician-Paramedic prepares the student with theoretical and practical knowledge to manage emergency medical situations. The student will apply principles of anatomy, pathophysiology, and public health fundamentals, as well as prehospital medicine, which include the evaluation and management of neonatal, pediatric, adult, geriatric, high-tech dependent, and audio impaired patients. They will also execute protocols for psychiatric medical emergencies, flight physiology and air transport. Graduates will be able to employ skills for immediate response in emergency situations when using and handling surgical medical equipment, administering medications and attending polytraumatized patients, with cardiac, respiratory, gynecobstetric, pediatric and neurological diseases, as established in their profession.

### PROGRAM COMPETENCIES

1. Apply theoretical and practical knowledge in their field of study and related areas in their professional performance, including applicable laws and regulatory procedures according to state and federal regulations.
2. Evaluate information and procedures in different situations of their working environment in a logical and critical manner.
3. Demonstrate oral and written communication skills in an effective and assertive manner when performing their duties as Emergency Medical Technicians - Paramedics.
4. Use the technological, digital, and computer-based means available to research information related to the procedures when performing Emergency Medical Technician - Paramedic duties.
5. Promote teamwork with a strong sense of respect for laws, ethical judgement and diversity.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

15 Credits in General Education Courses

7 Credits in Core Courses

55 Credits in Major Courses

### 77 Total Credits

### GENERAL EDUCATION COURSES

ESPA 2101	College Spanish I	3
INGL 2101	College English I	3
MATE 2101	College Mathematics I	3
CISO 2101	Introduction to Social Sciences	3
HUMA 2101	Introduction to Humanities	3
		<b>15</b>

### CORE COURSES

BIOL 2300	Introduction to Medical Emergencies	4
COMP 2113	Introduction to Computers	3
		<b>7</b>

### MAJOR COURSES

EMTP 2000	Introduction to Medical Emergencies	3
EMTP 2030	Pharmacology	3
EMTP 2011	Patient Assessment	2
EMTP 2021	Pathophysiology and Fundamentals of Public Health	3
EMTP 2060	Medical Emergencies	4
EMTP 2040	Respiratory and Neurological Emergencies	4
EMTP 2051	Cardiovascular Emergencies	5
EMTP 2080	Obstetric and Gynecological Emergencies	4
EMTP 2070	Polytraumatic Emergencies	5
EMTP 2100	Geriatric and Psychiatric Emergencies	3
EMTP 2114	Fundamentals of Aviation Physiology and Air Transport	2
EMTP 2113	Special Operations, Rescue, and Hazardous Materials Handling	3
EMPT 2111	Sign Language	2
EMPT 2090	Pediatric and Neonatal Emergencies	4
EMPT 2112	Preparatory Course for Paramedic Board Exam	3

EMPT 2120 Integrated Practice*	5
	<b>55</b>
<b>TOTAL CREDITS</b>	<b>77</b>

**NOTES:**

- \*Clinical practice will be performed with external ambulance service providers (public or private) or in clinical facilities.
- Specific centers, days or schedules are not guaranteed.
- The Commonwealth of Puerto Rico requires a license issued by the Board of Examiners of the Emergency Medical Technicians of Puerto Rico exam in order to work in this profession in PR.
- Graduates interested in becoming an ambulance operator (driver) must meet all requirements established by the Public Service Commission of Puerto Rico to obtain the license.
- In the Associate Degrees in Emergency Medical Technician - Paramedic and Associate Degree in Gastronomy & Culinary Management, core and specialty area courses must be passed with a grade no less than C.

## Diploma in Dental Assistant with Expanded Functions

*This program is currently in a teach-out process and is not accepting new students. Reentry may be possible only if a student can complete the program within the teach-out period, subject to approval by the Vice President of Academic Affairs. Contact Academic Affairs department for information on the teach-out date for your program at your location.*

### DESCRIPTION

This study program offers the student the knowledge, skills, and abilities that will enable them to collaborate with the dentist in the orientation to the patients, the preparation of equipment, and assistance in the dental treatments. The program also includes steps of hygiene and sanitation, nutrition, handling of equipment, and dental treatments. The graduates from this program will be able to fill positions as, Dental Assistant in private dentist offices, hospitals, or other medical institutions.

### PROGRAM COMPETENCIES

1. Explain the fundamental concepts of your program of study.
2. Apply the theory of their areas of study.
3. Develop psychomotor skills for the performance of occupational procedures.
4. Transfer competencies to the occupational environment.
5. Adapt to present and future work scenarios, through strategies and activities that promote group work and interpersonal relationships.
6. Integrally develop values through the promotion of activities that improve their performance as a member of the community.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

2 Credits in Core Courses

34 Credits in Major Courses

### 36 Total Credits

### CORE COURSES

EMME 1021	Anatomy and Physiology Principles	2
		<b>2</b>

### MAJOR COURSES

ASDE 1011	Dental Anatomy	2
ASDE 1012	Head and Neck Anatomy	2
ASFE 1001	Preventive (Oral Health and Prevention)/ Microbiology	2
ASDE 2006	Dental Materials	2
LASD 2006	Dental Materials- Lab	2
ASDE 2007	Clinical Sciences/ Pharmacology	2
LASD 2007	Clinical Sciences- Lab)	4
MASD 1001	Management Office and Dental Billing	2
ASDE 2008	Dental Radiology	2
LASD 2008	Dental Radiology- Lab	2
ASFE 1011	Expanded Medical Function: Preventive and Restorative Dentistry	2
LAFE 1011	Expanded Medical Function: Preventive and Restorative Dentistry Lab	4
ASDE 2009	Preparatory Course for Dental Assistant Board Exam and Certification of Expanded Medical Functions	2
PASD 2000	Clinical Practice (Externship)*	4
		<b>34</b>
	<b>TOTAL CREDITS</b>	<b>36</b>

### NOTES:

- \*The Clinical Externship will be performed in external establishments, according to availability.
- Specific centers, days or schedules are not guaranteed.
- Graduates of this program must pass the Dental Board exam in order to work in this profession in PR.

# Diploma in Practical Nursing

## DESCRIPTION

The Practical Nursing program prepares the student with the knowledge, skills, and attitudes required to provide practical nursing care to clients, families and communities. During their participation in this program, students will develop practical and clinical competencies in simulated and real environments that will allow them to perform practical nursing practical nursing interventions under aseptic techniques, safety, nutrition, electrocardiography, emergency management and other client-centered care. In addition, the student will identify the basic concepts of anatomy and physiology of the heart to perform an electrocardiogram. The graduate of this program will be able to practice as a Nurse Practitioner in public and private health centers, medical offices, psychiatric and long-term care and rehabilitation centers.

## PROGRAM COMPETENCIES

1. Apply theoretical and practical knowledge in their professional performance as practical nurses to promote health and disease prevention.
2. Communicate with assertiveness and efficiency with the multidisciplinary team about the nursing care offered to the customer, the family, and the community while performing their duties as practical nurses.
3. Logically and critically examine patient information and related procedures for health care.
4. Use quantitative and qualitative information to select practical nursing interventions and handling skills in order to provide safe care for patients.
5. Use the available technological and computer resources in procedures related to the practical nurses' tasks.
6. Demonstrate collaborative work skills with a sense of responsibility and ethical-legal judgement, while complying with laws and regulations that govern practical nursing in Puerto Rico.
7. Perform practical nursing interventions to promote health and disease prevention in each stage of growth and development, respecting the uniqueness of each individual and cultural and functional diversity.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

4 Credits in General Education Courses  
4 Credits in Core Courses  
28 Credits in Major Courses

## 36 Total Credits

### GENERAL EDUCATION COURSES

INGL 1109	Basic English I	2
ESPA 1007	Basic Spanish	2
		4

### CORE COURSES

EMME 1021	Anatomy and Physiology Principles	2
MICR 1001	Microbiology Principles	2
		4

### MAJOR COURSES

ENFE 1001L	The Nursing Profession and Laboratory	2
ENFE 1100L	Fundamentals of Nursing I: Lab	2
ENFE 1201	Medical-Surgical Nursing	2
ENFE 1200L	Fundamentals of Nursing II: Lab	2
ENFE 1200P	Fundamentals of Nursing Clinical Practice*	2
ENFE 1300L	Maternal and Newborn Care: Lab	2
ENFE 1301L	Pediatric Nursing: Lab	2
ENFE 1302P	Clinical Practice - Phase I (Externship)*	2
ENFE 1424	Psychiatric Nursing	2
ENFE 1425P	Clinical Practice - Phase II (Externship)*	2
EKGL 1002L	Basic Electrocardiography and Lab	2
ENFE 1516	Occupational Seminar-Preparatory Course for the Nursing Board Exam	2
ENFE 1517P	Clinical Practice - Phase III (Externship)*	4
		28
	<b>TOTAL CREDITS</b>	<b>36</b>

### NOTES:

- The external clinical practice will be performed in hospitals or clinical facilities according to availability. Specific centers, days or schedules are not guaranteed.
- Graduates of this program must the Nursing Board exam in order to work in this profession in PR.

# Diploma in Funeral Home Management and Embalming

## DESCRIPTION

The Funeral Home and Embalming Management Program prepares the student in the theoretical and practical principles of disinfection, preservation and restoration of the corpse. The student will develop management and marketing skills for the administration of funeral homes. The graduate of this program will be able to work in positions such as licensed embalmer, funeral director or administrator, funeral home owner, mortician, embalming laboratory owner, or own a franchise of transfer of corpses, crematorium and cemetery. The student must take the state examination to be employed as an embalmer in Puerto Rico.

## PROGRAM COMPETENCIES

1. Apply theoretical and practical knowledge in their professional performance as a licensed funeral home manager and embalmer in compliance with regulations, according with state and federal laws.
2. Analyze logically and critically information and procedures related to the field of mortuary sciences.
3. Communicate ideas in oral and written form in an assertive and effective manner while executing their role as embalmer and funeral services manager.
4. Use technological, digital and information media for the search of information while fulfilling the duties and responsibilities of their professional field.
5. Comply with their functions as embalmer and funeral home manager with a high sense of responsibility, respect for the law and diversity, and good moral and ethical judgement.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

4 Credits in General Education Courses

6 Credits in Core Courses

38 Credits in Major Courses

## 48 Total Credits

## GENERAL EDUCATION COURSES

INGL 1109	Basic I	2
ESPA 1007	Basic Spanish	2
		<b>4</b>

## CORE COURSES

BIOL 1124	Human Anatomy and Physiology I	2
BIOL 1125	Human Anatomy and Physiology II	2
COMP 2014	Computer Applications Programs (Power Point, Outlook and Internet Business Development)	2
		<b>6</b>

## MAJOR COURSES

EMBA 1138	Fundamentals of Organic and Inorganic Chemistry	2
EMBA 1149	Microbiology and Epidemiology	2
EMBA 1136	Embalming I	2
EMBA 1137	Embalming II	2
EMBA 1145	Principles of Legal Forensic Medicine	2
EMBA 1140	Principles of Pathology	2
EMBA 1139	Embalming III	2
EMBA 1144	Basic Principles of Toxicology	2
EMBA 1141	Fundamentals of Transmissible and Infectious-contagious disease	2
EMBA 1146	Principles of Funeral Home Administration	2
EMBA 1148	Psychological Fundamentals of Death	2
EMBA 1142	Embalming IV	2
EMBA 1147	Restorative Art and Cosmetology	2
EMBA 1143	Public Health Fundamentals	2
EMBA 1150	Business Development	2
EMBA 1151	Practice Seminar and Board Exam Review	2
EMBA 1152	Practice*	6
		<b>38</b>
		<b>48</b>

## TOTAL CREDITS

## NOTES:

- The external clinical practice will be performed in funeral homes and the demographic registry according to availability. Specific centers, days, or hours cannot be guaranteed.
- Graduates of this program must pass the Embalmers Board exam in order to work in this profession in PR.

# Diploma in Emergency Medical Technician – Basic

## DESCRIPTION

The Emergency Medical Technician Basic Program will train students in the theoretical and practical knowledge required for managing basic medical emergencies. Graduates of this program will be able to apply basic principles of anatomy and physiology, as well as those pertaining to prehospital medicine, including the assessment and management of newborn, pediatric, adult, aging, medical technology-dependent, and hearing-impaired patients. In addition, they will be able to apply basic immediate response skills in emergencies by using and managing surgical medical equipment, administering certain medications, and caring for polytraumatized patients with heart, respiratory, obstetric-gynecological, or pediatric diseases, as established at the basic level of their profession.

## PROGRAM COMPETENCIES

1. Apply theoretical and practical knowledge in their professional performance as a basic-level emergency medical technician in areas related to their profession, according to procedures, applicable regulations, and relevant state and federal laws.
2. Analyze logically and critically information and procedures related to their professional field in different emergency situations in and out of the work environment.
3. Communicate ideas in oral and written form in an assertive and effective manner while executing their role as a basic-level emergency medical technician.
4. Use technological and information media correctly for information search related to procedures in the performance of their duties as a basic-level emergency medical technician.
5. Demonstrate collaborative work skills with a high sense of responsibility, compliance with applicable laws, respect for diversity, and good moral and ethical judgement in their professional field as a basic-level emergency medical technician.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

2 Credits in General Education Courses

2 Credits in Core Courses

16 Credits in Major Courses

## 20 Total Credits

## GENERAL EDUCATION COURSES

MATE 1222	Basic Mathematics	2
		<b>2</b>

## CORE COURSES

EMME 1021	Anatomy and Physiology Principles	2
		<b>2</b>

## MAJOR COURSES

EMME 1011L	Fundamentals of Medical Emergencies, Communication, Medical Control, and Dispatch Techniques and Laboratory	2
EMME 1037	Fundamentals of Pharmacology	1
EMME 1028	Patient Assessment and Management of Medical Technology- Dependent Persons	1
EMME 1053	Cardiovascular Emergencies and Shocks	1
EMME 1063	Respiratory Emergencies	1
EMME 1072	Internal Medicine and Public Health Emergencies	1
LEME 1492	Trauma Emergencies: Lab	1.5
EMME 1077	Obstetric and Gynecological Emergencies	1
SIGN 1002	Sign Language	1.5
EMME 1082	Neonatal and Pediatric Emergencies	1
EMME 1403	Rescue and Forensic Scene and Hazardous Materials Management	1
EMME 1103L	Preparatory Course for Board Exam and Laboratory	1
EMME 1204P	External Clinical Practice*	2
		<b>16</b>
		<b>20</b>

## TOTAL CREDITS

## NOTES:

- \*Clinical practice will be performed in hospitals or physician's offices, as available in clinical facilities. Specific centers, days or schedules are not guaranteed.
- Graduates of this program must pass the Emergency Medical Technician Board exam in to work in this profession in PR.



# Diploma in Training and Physical Conditioning Technician

## DESCRIPTION

The Physical Training and Conditioning Technician program prepares the student in theoretical and practical knowledge to ensure the quality of life of diverse populations through exercise, taking into account possible pathologies and injuries. Graduates of this program will be able to apply their knowledge about the efficiency of the human body, from body functions to physical, aerobic, anaerobic and muscular condition; nutrition to increase performance during training; and recovery from physical overload. In addition, they will be able to employ skills for the sports rehabilitation of athletes as well as disabled or elderly people, as established in the basic level of their profession.

## PROGRAM COMPETENCIES

1. Apply theoretical and practical knowledge in their professional performance as trainers in accordance with the procedures, laws, and certifications pertinent to their profession.
2. Logically and critically analyze the information and procedures related to their professional field for the prescription of exercises adapted to the client's needs, characteristics, and goals based on diseases, injuries, and treatment.
3. Communicate ideas assertively and efficiently ideas while performing their duties as trainers to ensure the quality of service, encouraging the physical traits and abilities of human beings for achieving well-being and quality of life.
4. Use the technological and computer resources available to search for information related to diverse exercise techniques and material for their professional development.
5. Demonstrate collaborative work skills with a great sense of responsibility, compliance with laws, respect towards diversity, and good moral and ethical judgment in their professional field as trainers, adapting to different work scenarios that will turn them into valuable members of society.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

4 Credits in Core Courses

32 Credits in Major Courses

**36 Total Credits**

## CORE COURSES

COMP 2014	Computer Applications Programs (Power Point, Outlook and Internet)	2
EMME 1021	Anatomy and Physiology Principles	2
		<b>4</b>

## MAJOR COURSES

DEPO 1143	Sports Nutrition	2
DEPO 1139	First Aid in Sports	2
DEPO 1144	Ethics and Administrative Aspects	2
DEPO 1128	Physical Efficiency	2
DEPO 1132	Exercise Principles	2
DEPO 1145	Trainers Role in Sports Psychology and Physiology Management	2
DEPO 1134	Techniques Integrated to the Exercise	2
DEPO 1146	Medical Terminology and Pathology	2
DEPO 1130	Biomechanics and Structural Kinesiology	2
DEPO 1147	Prevention and Sports Injuries	2
DEPO 1138	Exercise for Special Populations	2
DEPO 1135	Sports Training	2
DEPO 1137	Therapeutic Exercises and Rehabilitation	2
DEPO 1148	Preparatory Course for Personal Trainer Certification	2
DEPO 1149	Clinical Practice *	4

**32**

## TOTAL CREDITS

**36**

## NOTES:

- \*The external clinical practice will be performed in gymnasiums, recreation and sports areas, schools, according to availability. Specific centers, days or schedules are not guaranteed.
- Graduates of this program must pass the exam to obtain the Physical Fitness License through the Department of Recreation and Sports (DRD).

## Diploma in Geriatric Technician

*This program is currently in a teach-out process and is not accepting new students. Reentry may be possible only if a student can complete the program within the teach-out period, subject to approval by the Vice President of Academic Affairs. Contact Academic Affairs department for information on the teach-out date for your program at your location.*

### DESCRIPTION

This study program offers the student the knowledge, skills, and aptitudes that enable them to provide support services and home care to people with incapacitating and/or aging conditions, under the supervision of a Physician or Graduate Nurse. The theoretical fundamentals of home health care, management of emergency situations, promotion of good nutrition and care plans for health rehabilitation are included. The graduate of this program will be able to work as a Geriatric Technician in home health care companies and elderly centers.

### PROGRAM COMPETENCIES

1. Explain the fundamental concepts of your program of study.
2. Apply the theory of their areas of study.
3. Develop psychomotor skills for the performance of occupational procedures.
4. Transfer competencies to the occupational environment.
5. Adapt to present and future work scenarios, through strategies and activities that promote group work and interpersonal relationships.
6. Integrally develop values through the promotion of activities that improve their performance as a member of the community.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

2 Credits in Core Courses  
22 Credits in Major Courses

### 24 Total Credits

### CORE COURSES

ENFE 1421	Human Development	2
		<b>2</b>

### MAJOR COURSES

ASSH 1510	Home Health Care Assist Fundamentals	2
ENFE 1422	Introduction to the Study of Illness	2
ASSH 1421	Nourishment/Diet-therapy/ Medical Administration	2
ASSH 1511	Fundamentals of Health Care Interventions	2
ASSH 1005	Home Health Care Assist Services I	2
ENFE 1423	Introduction to Geriatrics	2
ASSH 1006	Home Health Care Assist Services II	2
ENFE 1515	Introduction to Mental Health	2
ASSH 1007	Occupational Seminar	2
ASSH 1008	Clinical Externship**	4
		<b>22</b>
<b>TOTAL CREDITS</b>		<b>24</b>

### NOTES:

- \*The external clinical exteternship will be performed in hospitals, medical center and homes, according to availability. Specific centers, days or schedules are not guaranteed.
- The Commonwealth of Puerto Rico does not require a certification or license to be able to work as a Homecare Assistant.

# Diploma in Professional Massage Therapist

## DESCRIPTION

The Professional Massage Therapist Program prepares the student in the theoretical knowledge, methods and specific massage techniques. The student will also develop skills in manipulation, stretching and therapeutic massage according to the client's needs. The graduate of this program will be able to work as a professional massage therapist in hospitals, physiatrists' offices, chiropractors, spa centers, gyms, beauty salons, esthetic centers, sports teams, elderly care centers and rehabilitation centers, as well as through self-employment, among others.

## PROGRAM COMPETENCIES

1. Apply theoretical knowledge, methods and specific techniques of the various therapeutic massages in their performance as professional massage therapist as established in the basic level of their profession.
2. Analyze logically and critically the information and protocols related to the application of therapeutic techniques and treatments for the improvement of the client's well-being according to their needs.
3. Promote effective and assertive communication with the client about the benefits, contraindications and physical effects of energetic treatments related to their field of work to ensure the quality of services.
4. Use technological and computer media to search for information related to various massage techniques and their professional development.
5. Perform their duties as a professional massage therapist with a great sense of responsibility and respect for diversity, laws and regulations, thus promoting ethical and moral behavior in the exercise of their profession.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

2 Credits in General Education Courses

2 Credits in Core Courses

27 Credits in Major Courses

## 31 Total Credits

## GENERAL EDUCATION COURSES

INGL 1109	Basic English I	2
		<b>2</b>

## CORE COURSES

EMME 1021	Anatomy and Physiology Principles	2
		<b>2</b>

## MAJOR COURSES

MASJ 1001	Introduction to Massage Techniques	2
MASJ 1152	Principles of Medical Terminology, Traumatology, and Clinical Pathology	2
MASJ 1143	Swedish Massage **	2
MASJ 1145	Structured Kinesiology and Biomechanics	2
MASJ 1144L	Lymphatic Massage and Laboratory**	2
MASJ 1146	Somatic Therapy **	2
MASJ 1147L	Trigger Point and Deep Tissue Therapy and Laboratory**	2
MASJ 1154L	Oriental Techniques (Shiatsu and Thailand) and Laboratory	1
REFL 1003	Reflexology, Music Therapy and Aromatherapy**	2
MASJ 1155L	Sport Massage and Laboratory	1
MASJ 1153	Professional Ethics / Development and Management of a Salon (Spa)	2
MASJ 1150	Hydrotherapy and Special Populations Massage **	2
MASJ 1151L	Preparatory Course for Massage Board Exam and Laboratory	2
MASJ 2009	Externship Practice */**	3
		<b>27</b>

## TOTAL CREDITS

**31**

## NOTES:

- \*Externships will be performed in establishments outside the Institution, according to availability. Specific practice centers, days and schedules are not guaranteed.
- \*\*This academic program has several courses that integrate with the extended laboratory of Beauty Clinic.
- The graduates of this program should have passed the Massage Therapists Board Exam to work in this profession in Puerto Rico.

# Diploma in Professional Pet Groomer

## DESCRIPTION

The Professional Pet Groomer Diploma program will prepare students with the required professional competencies in the field of animal hygiene and general pet grooming. Furthermore, students will apply effective skills for animal care, such as creative grooming techniques and identifying the most common skin conditions in pets. They will develop basic knowledge and methods for business administration and establishing their own animal grooming services business.

## PROGRAM COMPETENCIES

1. Demonstrate theoretical knowledge and professional skills in the care and grooming of pets in their role as professional pet groomers.
2. Perform basic business management and operation activities as support staff in their place of employment or as business owners.
3. Apply logical and critical thinking when performing established processes and the service techniques and teamwork skills required in their role as professional pet groomers.
4. Employ effective oral and written communication skills, as well as service strategies aimed at satisfying customers and pet owners.
5. Utilize relevant technology and computer media with a focus on service, security, and efficient management of customer information and profession-related procedures.
6. Demonstrate a sense of responsibility, respect for diversity, and compliance with the established laws, regulations, and ethical codes for the protection, well-being, and management of animals in the practice of their profession.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

37 Credits in Major Courses

**37 Total Credits**

## MAJOR COURSES:

GROM 1000	Introduction to Pet Grooming*	2
GROM 1010	Anatomy and Animal Husbandry	2
GROM 1020	Health, Wellness, and Emergency Management*	2
GROM 1030L	Pre-Grooming Techniques and Laboratory*	3
GROM 1040L	Principles of Behavior and Laboratory	3
GROM 1100L	Basic Grooming and Laboratory*	3
GROM 1110	Basic Business and Marketing	2
CONT 1095	Elementary Accounting I	2
GROM 1120L	Grooming Cuts and Styles I and Laboratory*	3
GROM 1130L	Creative Grooming and Asian Fusions Laboratory*	3
GROM 1200L	Advanced Grooming Techniques and Laboratory*	3
GROM 1210L	Grooming Cuts and Styles II and Laboratory*	3
GROM 1220L	Grooming Seminar and Laboratory*	2
GROM 1300P	Grooming Practice*	4
<b>TOTAL CREDITS</b>		<b>37</b>

## NOTES:

- \*Students enrolled in the Professional Pet Groomer program must obtain a minimum grade of C (70% or higher) to pass all courses in the program.
- The following courses must be passed with a grade of C or higher:  
GROM 1000, GROM1010, GROM1020, GROM1030L, GROM1040L, GROM1100L, GROM1110, CONT1095, GROM1120L, GROM1130L, GROM1200L, GROM1210L, GROM1220L
- The following courses must be passed with a grade of B or higher:  
GROM 1300P
- \*This academic program has several courses that integrate with the extended laboratory of Professional Pet Grooming Clinic

# Diploma in Veterinary Assistant with Pet Grooming

## DESCRIPTION

The Veterinary Assistant with Pet Grooming diploma program will prepare students with the necessary knowledge of animal physiology and care, as well as disease prevention and animal health management. Additionally, they will be able to employ skills as pet groomers to provide grooming and conditioning services for pets in different settings, as established at the basic level of their profession. Graduates of this program will be able to apply techniques in veterinary surgical nursing, radiology, sonography, dental and laboratory procedures.

## PROGRAM COMPETENCIES

1. Apply theoretical, practical, and clinical knowledge aimed at preserving life, caring for injuries, and controlling diseases in domestic and farm animals under the supervision of a veterinarian.
2. Demonstrate theoretical knowledge and professional skills in the care and grooming of pets in their role as professional pet groomers.
3. Employ effective assertive communication skills, both oral and written, with the clinical team, as well as service strategies aimed at satisfying customers and pet owners.
4. Analyze information and procedures related to animal care and physiology, health management and disease prevention, vital signs, and clinical documentation, among others, logically and critically.
5. Utilize relevant technology and computer media, focusing on service, security, and the efficient management of customer information and professional procedures.
6. Demonstrate a sense of responsibility, respect for diversity, and compliance with the laws, regulations, and ethical codes established for the protection, well-being, and management of animals in the practice of their profession.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

7 Credits in General Courses

45 Credits in Major Courses

**52 Total Credits**

## GENERAL COURSES

ESPA 1007	Basic Spanish	2
MATE 1222	Basic Mathematics	2
INGL 1109	Basic English I	2

PSCY 1110	Principles of Community Social Psychology	1
		<b>7</b>

## MAJOR COURSES

VETR1000	Introduction to Veterinary Medicine and Animal Biosafety	2
VETR 1010L	General Principles of the Veterinary Operating Room and Laboratory	2
VETR 1020L	Anatomy and Physiology of Animals and Laboratory	3
VETR 1100	Veterinary Microbiology	2
VETR 1110	Veterinary Pathology, Toxicology, and Pharmacology	2
VETR 1120L	Principles of Veterinary Nursing and Laboratory	3
VETR 1130L	Management, Care, and Diseases of Farm Animals and Laboratory	3
VETR 1140L	Clinical Veterinary Procedures Laboratory	3
VETR 1200	Principles of Veterinary Dentistry	1
VETR 1210	Animal Nutrition	1
VETR 1220L	Introduction to Veterinary Radiology and Sonography and Laboratory	3
VETR 1301P	Veterinary Clinical Practice	3
GROM 1000	Introduction to Pet Grooming*	2
GROM 1030L	Pre-Grooming Techniques and Laboratory*	3
GROM 1100L	Basic Grooming and Laboratory*	3
GROM 1120L	Grooming Cuts and Styles I and Laboratory*	3
GROM 1200L	Advanced Grooming Techniques*	3
GROM 1301P	Grooming Practice*	3

**45**

## TOTAL CREDITS

**52**

## NOTES:

- \*Students enrolled in the Veterinary Assistant with Pet Grooming program must obtain a minimum grade of C (70% or higher) to pass all courses in the program.
- The following courses must be passed with a grade of C or higher:  
MATE 1222 ESPA 1007 INGL 1109 VETR 1000 VETR 1010L VETR 1020L VETR 1100 VETR 1110 VETR 1120L VETR 1130L VETR 1140L VETR 1200 VETR 1210 VETR 1220L PSCY 1110 GROM 1000 GROM 1030L GROM 1100L GROM 1120L GROM 1200L
- The following courses must be passed with a grade of B or higher:  
GROM 1301P VETR 1301P
- \*This academic program has several courses that integrate with the extended laboratory of Professional Pet Grooming Clinic

## Diploma in Veterinary Assistant

### DESCRIPTION

The Veterinary Assistant Diploma program will prepare students with the required competencies in veterinary medicine, public and environmental health activities, and managing domestic and farm animals. Additionally, students will be able to apply skills related to veterinary surgical nursing, radiology, sonography, dental and laboratory procedures, as established at the level of their profession as a veterinary assistant, under the supervision of a licensed veterinarian. Graduates of this program will be able to apply skills for animal care, disease prevention, and animal health management.

### PROGRAM COMPETENCIES

1. Apply theoretical, practical, and clinical knowledge in their professional performance as veterinary assistants to ensure the safe handling and caring for the health and well-being of animals.
2. Analyze information and procedures related to animal care, anatomy and physiology, health management and disease prevention, vital signs, and clinical documentation, among others, logically and critically.
3. Employ effective oral and written communication skills assertively with the clinical team, as well as service strategies aimed at satisfying customers and pet owners.
4. Utilize relevant technology and computer media, focusing on service, security, and the efficient management of customer information and professional procedures.
5. Demonstrate a sense of responsibility, respect for diversity, and compliance with the laws, regulations, and ethical codes established for the protection, well-being, and management of animals in the practice of their profession.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

7 Credits in General Courses

31 Credits in Major Courses

**38 Total Credits**

### GENERAL COURSES

ESPA 1007	Basic Spanish	2
MATE 1222	Basic Mathematics	2
INGL 1109	Basic English I	2
PSCY 1110	Principles of Community Social Psychology	1
		<b>7</b>

### MAJOR COURSES

VETR 1000	Introduction to Veterinary Medicine and Animal Biosafety	2
VETR 1010L	General Principles of the Veterinary Operating Room and Laboratory	2
VETR 1020L	Anatomy and Physiology of Animals and Laboratory	3
VETR 1100	Veterinary Microbiology	2
VETR 1110	Veterinary Pathology, Toxicology, and Pharmacology	2
VETR 1120L	Principles of Veterinary Nursing and Laboratory	3
VETR 1130L	Management, Care, and Disease of Farm Animals and Laboratory	3
VETR 1140L	Clinical Veterinary Procedures Laboratory	3
VETR 1200	Principles of Veterinary Dentistry	1
VETR 1210	Animal Nutrition	1
VETR 1220L	Introduction to Veterinary Radiology and Sonography and Laboratory	3
VETR 1300P	Veterinary Clinical Practice	6
		<b>31</b>
	<b>TOTAL CREDITS</b>	<b>38</b>

### NOTES:

- \*Students enrolled in the Veterinary Assistant program must obtain a minimum grade of C (70% or higher) to pass all courses in the program.
- The following courses must be passed with a grade of C or higher:
- VETR 1000, ESPA 1007, INGL 1109, MATE 1222, VETR 1010L, VETR 1020L, VETR 1100, VETR 1110, VETR 1120L, VETR 1130L, VETR 1140L, VETR 1200, VETR 1210, VETR 1220L, PSYC 1110The following courses must be passed with a grade of B or higher:  
VETR 1300P



## Diploma in Laboratory Assistant with Electronic Processing

### OBJECTIVE

The Laboratory Assistant Program with Electronic Processing will prepare students with concepts in basic sciences, customer service, and laboratory procedures. Graduates of this program will be able to apply knowledge and skills to assist in a laboratory in areas such as equipment cleaning and disinfection, preparation of culture media, labeling of samples, and customer service. Additionally, they will employ scientific knowledge in the proper and responsible handling of samples and laboratory equipment, and in accordance with applicable regulations under current law.

### PROGRAM COMPETENCIES

1. Demonstrate theoretical knowledge and professional skills in equipment maintenance, sample and blood component handling, culture media preparation, staining, and other legally authorized procedures within their role as laboratory assistants.
2. Employ effective oral and written communication skills when interacting with clients and both internal and external personnel, including doctors, nurses, and others, while managing information relevant to processes within clinical laboratories, pathological laboratories, and blood banks.
3. Apply the processes of the scientific method and logical reasoning in their professional practice, including problem-solving, analyzing medical terminology used in medical orders (tests and diagnoses), and the proper handling of laboratory samples and equipment.
4. Effectively utilize technological equipment and computer resources in processes related to customer service, data entry, and patient information management in clinical laboratories.
5. Demonstrate ethical and moral responsibility, professional attitude, and other interpersonal skills that contribute to compliance with current laws and regulations regarding patient data confidentiality in healthcare services.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

7 Credits in General Education Courses

2 Credits in Core Courses

28 Credits in Major Courses

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### 37 Total Credits

#### GENERAL EDUCATION COURSES

INGL 1109	Basic English I	2
LITE 1001	Computer Literacy	2
ESPA 1007	Basic Spanish	2
SEMI 1005	Academic Adaptation and Professional Life Seminar	1
		<b>7</b>

#### CORE COURSES

BIOL 1000	Fundamentals of Human Anatomy and Physiology	2
		<b>2</b>

#### MAJOR COURSES

LABS 1000L	Introduction to the Laboratory Assistant Profession and Laboratory	3
LABS 1010L	General Science Compendium and Laboratory	2
MICR 1000L	Handling of Samples, Basic Microbiology and Parasitology Concepts and Laboratory	3
MEDT 1000	Medical Terminology in the Laboratory	2
LABS 1020L	General Data Entry and Billing Processes for Laboratory Services	3
LABS 1030L	Handling of Samples in Hematology, Chemistry, Urinalysis, Coagulation, Serology, Immunology, and Molecular Biology, and Laboratory	4
LABS 1040L	Handling of Samples and Blood Components in Blood Banks, and Laboratory	2



LABS 1050L	Handling of Pathological Samples and Laboratory	3
LABS 1060	Integrative Seminar: Laboratory Assistant	2
LABS 1070P	Laboratory Assistant Clinical Practice	4
		<b>28</b>
<b>TOTAL CREDITS</b>		<b>37</b>

**NOTES:**

- \*Externships will be performed in establishments outside the Institution, according to availability. Specific practice centers, days and schedules are not guaranteed.
- All major courses must be approved with at minimum grade of "C".

## ***HEALTH COURSE DESCRIPTIONS***

**ASDE 1011 Dental Anatomy****2 Credits****Prerequisites: None**

This course provides educational activities to make the student able to identify and understand the dental anatomy with emphasis on structures of the oral cavity, terminology, tooth morphology, embryology and histology of the head region and oral cavity.

**ASDE 1012 Head and Neck Anatomy****2 Credits****Prerequisites: None**

This course provides educational activities to make the student able to identify and understand the head and neck anatomy. Topics to be covered include embryonic development of the head and neck, along with identification of the bones in the skull. Muscles of the head and neck will be identified along with their functions, insertion and origins. The vascular, lymphatic and nervous systems of the head and neck as well as the anatomical basis of the spread of infection.

**ASDE 2006 Dental Materials****2 Credits****Prerequisites: None**

Introduction to the basic principles of dental materials science. This includes the physical, chemical, biological, and mechanical properties of dental materials commonly used in the dental office and dental laboratory, and how to handle possible reactions.

**ASDE 2007 Clinical Sciences/Pharmacology**  
**2 Credits****Prerequisites: ASDE 2006, LASD 2006**

Introduction to the preclinical chair, assistance in procedures, instrumentation, infection and risk control protocol, safety and maintenance of equipment, provision of dental care, diagnosis and planning of oral treatment, anesthesia and pain control, dental instruments, procedures in dental emergencies and in the office. Basic terminology and classification of medications used in emergencies. The theoretical component of the course studies the legal aspect and regulations that control the use and distribution of drugs, the methods of administration and the effects of drugs on the different systems of the human body, routes of drug administration and the application of safety and aseptic precautions in the maintenance of drugs.

**ASDE 2008 Dental Radiology****2 Credits****Prerequisites: ASDE 1011, ASDE 1012**

This course focuses on oral radiology procedures. The students discuss information on physical, biological, technical, and diagnostic aspects of dental x-ray procedures. Through lectures, and seminars, the course emphasizes various radiographic techniques and interpretation as an essential component of gathering information for diagnosis and treatment planning.

**ASDE 2009 Preparatory Course for Dental Assistant Board Exam and Certification of Expanded Medical Functions****2 Credits****Prerequisites: ASDE 2006, ASDE 2007, ASDE 2008 and ASFE 1011**

This course will prepare the student for take the Puerto Rico Dental Assistant Board Exams, in order to become a licensed dental assistant. Instruction includes: description of the occupation, description of the Board-By Laws, reviewing of topic included in the exams, such as: basic mathematics, general sciences, teeth anatomy /physiology, x-rays medications, equipment/materials used and the study of the laws and regulations related to the occupation. Also, include simulated board exam taking practices. Students will learn professionalism along with shop management and product/services sales.

**ASFE 1001 Preventive (Oral Health and Prevention)/Microbiology****2 Credits****Prerequisites: None**

The course presents the study of nutrition in general with an emphasis on the effects it has on dental health. It includes the study of an adequate diet and the application of counseling strategies to help the patient achieve optimal oral health. Detailed information is given to the student on all aspects of microbiology and hygiene. It tries to place the individual in a healthy environment while presenting the different mechanisms used by the community to promote and maintain health. It includes the methods of sterilization and disinfection to prevent diseases, improve the quality of life and maintain optimal health conditions. In addition, the study of microorganisms includes an emphasis on the study of bacteria, which covers

their morphology, physiology, control and other related topics such as sexually transmitted infections.

**ASFE 1011 Expanded Medical Function: Preventive and Restorative Dentistry**  
**2 Credits**

**Prerequisites:** ASDE 2008, LASD 2008

Introduction to the scientific principles of restorative dentistry. Topics include nomenclature, ergonomics, isolation of the operating site, instrumentation, pulp protection, matrix and wedge techniques, occlusion, finishing and polishing of amalgam restorations and ethical and legal responsibilities. Fundamental concepts of Class I, II, III, V simple and complex amalgam restoration placement and techniques are presented.

**ASSH 1005 Home Health Care Assist Services I**  
**2 Credits**

**Prerequisites:** ENFE 1421

This is the first of two courses concerning regular health home care offered to elders and disabled at nursing or at patient's home. Included are subject like prevention, supportive services regarding prescribed treatment, management of common diseases and community involvement.

**ASSH 1006 Home Health Care Assist Services II**  
**2 Credits**

**Prerequisites:** ASSH 1005

This is the second course in relation to home health care and assistance services. The emphasis is on the patient's recovery and rehabilitation process. The concept of rehabilitation is defined; the goals, agencies and health professionals related to this process are established, detailing the specific functions of the Geriatric Technician in rehabilitation services. The special considerations and needs to be considered in the rehabilitation plans by the patient and their family environment are discussed. In addition, the Geriatric Technician's assistance techniques, care procedures, and activities that can be performed to promote rehabilitation success and patient independence are practiced through simulation and hands-on exercises.

**ASSH 1007 Occupational Seminar**  
**2 Credits**

**Prerequisites:** None

This seminar studies and practices different types of strategies for job acquisition and retention; assists the student in the preparation of the documents required in the job search process (letter of intent, resume, etc.), proofreading techniques and clarity in completing the application form and preparing for an interview.

**ASSH 1008 Clinical Externship**  
**4 Credits**

**Prerequisites:** Approved all previous courses, except ASSH 1007

In this phase, the student is exposed to a real experience in the care of geriatric patients. The concepts learned are integrated to this practice in a health institution or home, under the supervision of a health professional. During this phase, students will apply the concepts learned in the classroom.

**ASSH 1421 Nourishment / Diet-therapy / Medical Administration**  
**2 Credits**

**Prerequisites:** None

This course studies the definition, importance, and requirements of nutrition according to the individual's age, physical activity, and climate. It discusses nutrients, basic food groups, balanced and/or prescribed diets for each stage of growth or health condition. It includes the origin, presentation, forms of administration and effects, ethical-legal aspects and others, related to the administration of drugs and medications by the Physician, Graduate Nurse and Geriatric Technician.

**ASSH 1510 Home Health Care Assist Fundamentals**  
**2 Credits**

**Prerequisites:** None

This course discusses occupational aspects such as classification, tasks, opportunities, employment market, personality, salaries, and ethical-legal implications, psychological aspects of the profession, malpractice, insurance and record keeping. In addition, the student is informed about the objectives of the program of study, academic regulations and orientation regarding the internship.

**ASSH 1511 Fundamentals of Health Care Interventions****2 Credits****Prerequisites: None**

This general course is related to the different primary needs in intervention care for a patient, such as room preparation, first aid, bandages, taking vital signs, patient assistance in their daily activities, bathing and skin care. It also includes some basic care principles of patients with wounds, burns, fractures; collect samples, application of hot and cold treatments, oxygen and others.

**BIOL 1000 Fundamentals of Human Anatomy and Physiology****2 Credits****Prerequisites: None**

In this course, students will identify cells, main structures, and systems of the human body. They will analyze the functions of organelles in eukaryotic cells, as well as the primary structures and systems of the human body. Students will differentiate common pathologies of the body's systems, the benefits of key vitamins, and the health effects of vitamin deficiencies or excesses.

**BIOL 1124 Human Anatomy and Physiology I****2 Credits****Prerequisites: None**

In this course, students will examine the basic principles of human anatomy and physiology applied to mortuary sciences, with emphasis on the study of the body at a systemic level, the cell and its environment, tissues, and skin. They will also analyze the development of the muscular-skeletal, nervous, and endocrine systems or apparatus of the human body related to embalming and investigate the most common pathologies in these systems.

**BIOL 1125 Human Anatomy and Physiology II****2 Credits****Prerequisites: BIOL 1124**

In this course, the student will examine the functioning of the endocrine, cardiovascular, immune and lymphatic systems. In addition, students will explain the structure and function of the respiratory system and the gastrointestinal system. Likewise, they will argue about the structure and function of the urinary and

reproductive systems. It will also investigate the most common pathologies in these systems.

**BIOL 2300 Human Biology****4 Credits****Prerequisites: None**

In this course, the student will analyze the main concepts of anatomy and physiology of the various systems of the human body. The body structures and the integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, lymphatic, immune, respiratory, digestive, urinary, and reproductive systems will be evaluated as well as the functions of the sensory organs, the physiology of the cells and tissues that compose each system of the human body.

**CISO 2101 Introduction to the Social Sciences****3 Credits****Prerequisites: None**

Upon completion of this course, the student will analyze fundamental concepts of social sciences, starting from the history, evolution, and development of society. Argue issues across disciplines that make up social sciences such as history, anthropology, sociology, and psychology. In addition, students will examine diverse researches of social content based on current problems of the society to which they belong.

**COMP 2014 Computer Application Programs (PowerPoint, Outlook, Internet)****2 Credits****Prerequisites: None**

In this course, the student will analyze the use of productivity tools and computerized systems, evaluate concepts about technology, the information processing cycle, its devices, and the function of computer programs. They will also examine services, security, privacy, Internet ethics, and technological assistance. Likewise, it will apply technological competencies in the use of digital tools for the creation of documents in word processors, presentations and electronic spreadsheets.

**COMP 2113 Introduction to Computers****3 Credits****Prerequisites: None**

In this course, the student will examine the history and evolution of the various equipment and programs for data processing and the

interrelation of the user and technology and will manipulate a computer to simplify jobs and tasks. In addition, will analyze information and communication technology to maximize productivity and efficiency in their daily lives.

### **CONT 1095 Elementary Accounting I**

In this course, students will analyze the basic concepts of the accounting cycle for a service business and its impact on a company's operations. They will develop the topics of accounting equation, T accounts, transaction analysis, financial statements, and payroll. They will create the financial reports required to complete a company's accounting cycle.

2 credits

Prerequisites: None

Corequisite: None

### **DEPO 1128 Physical Efficiency**

**2 Credits**

**Prerequisites: DEPO 1134**

In this course, the student will develop skills for physical evaluations and measurements of physical fitness components related to health and athletic performance. Likewise, they will perform physical evaluations related to cardiorespiratory tolerance and endurance, muscular strength, tolerance and endurance, flexibility and body composition, as well as agility, coordination, balance, maximum strength, speed, power and reaction time. In addition, will select physical exercises aimed at different populations for lifestyle enrichment, health promotion and overall wellness through physical training.

### **DEPO 1130 Biomechanics and Structural Kinesiology**

**2 Credits**

**Prerequisites: EMME 1021**

In this course, the student will analyze the musculoskeletal system based on its movements, anatomy, physiology and physical laws applied to the human body. In addition, will differentiate the axes and levers of the human body and the articular movements between the various planes that contribute to the increase of physical performance during training and will develop techniques for the evaluation of optimal range of motion, strength and muscular endurance according to their respective variations.

### **DEPO 1132 Exercises Principles**

**2 Credits**

**Prerequisites: Concurrent with DEPO 1134**

In this course, the student will develop skills in physiology and components of the different types of exercise based on the progression, intensity, and adaptation of physical training. In addition, students will differentiate between isometric, isotonic and isokinetic exercises and exercises with training machines, free weights, functional exercises and plyometric exercises; as well as examine the needs of the client, paying particular attention to the indications and contraindications.

### **DEPO 1134 Techniques Integrated to the Exercise**

**2 Credits**

**Prerequisites: Concurrent with DEPO 1132**

In this course, the student will examine the basic principles of exercise techniques, as well as the importance of warm-up and stretching before and after each exercise performance. They will distinguish between warm-up and stretching techniques; the various factors that affect flexibility; frequency, duration, and intensity of stretching; techniques for resisted and cardiovascular training; and basic and advanced techniques. Also, will develop techniques to assist the client during training.

### **DEPO 1135 Sports Training**

**2 Credits**

**Prerequisites: DEPO 1132**

In this course, the student will develop specific knowledge of advanced, sports training, and differentiate between the characteristics of physical fitness levels in the general and athletic population based on adaptations, equipment and exercises. In addition, will design training programs for the general and athletic population according to the needs of their clients with the purpose of strengthening physical fitness.

### **DEPO 1137 Therapeutic Exercises and Rehabilitation**

**2 Credits**

**Prerequisites: DEPO 1132**

In this course, the student will apply basic rehabilitation skills and therapeutic exercises for sports injuries and examine techniques for rehabilitation with machines, free weights, elastic bands, medicine balls, foam rollers, and massage guns. Additionally, will develop corrective

techniques and skills for the recovery of injuries and tissues.

**DEPO 1138 Exercises for Special Populations**

**2 Credits**

**Prerequisites: DEPO 1132**

In this course, the student applies the concepts, techniques, and fundamentals of exercise for special populations and evaluates the adaptations, components, and different types of exercises for children, women, elderly, obese people, and individuals with functional diversity. Determines the appropriate exercises for each special population according to indications, contraindications and precautions.

**DEPO 1139 First Aid in Sports**

**2 Credits**

**Prerequisites: None**

In this course, the student will develop the knowledge, skills, and techniques that will allow him/her to make an immediate evaluation and management in emergency sports situations. In addition, students will learn different anatomical immobilization techniques depending on the type of injury. In addition, students will analyze prescribed protocol standards, safety measures, and treatment protocols for serious injuries prior to the provision of professional medical attention.

**DEPO 1143 Sports Nutrition**

**2 Credits**

**Prerequisites: None**

In this course, the student will analyze the fundamental concepts of nutrition for the promotion of physical health and sports development in their clients. They will discuss topics related to the nutrients required by the body to comply with its physiological functions and evaluates the different habits and types of food, the functions of nutrients as well as the impact of the use of nutritional supplements in the body. Also will, determine healthy dietary recommendations according to the client's needs.

**DEPO 1144 Ethics and Administrative Aspects**

**2 Credits**

**Prerequisites: None**

In this course, the student will analyze the laws and requirements of the personal trainer profession and examine administrative aspects of

the rights, responsibilities and regulations established for a personal trainer. In addition, the student will prepare a physical training business structure and its documentation.

**DEPO 1145 Trainers Role in Sports Psychology and Physiology Management**

**2 Credits**

**Prerequisites: EMM 1021**

In this course, the student will explain the role of the coach in the management of sports psychology and physiology in the context of training and physical conditioning and its practical application in the discipline. They analyze the physiological changes (response and adaptations) in the body as a consequence of physical activity. In addition, they will differentiate between the origins of body energy sources, their modes of transformation and their direct impact on metabolism, temperature and muscle contraction. Also will develop skills and techniques for the management of anxiety and stress based on the client's state of mind.

**DEPO 1146 Medical Terminology and Pathology**

**2 Credits**

**Prerequisites: EMM 1021**

In this course, the student will identify the main alterations in the normal functions of the human body. They will determine the effect that pathologies have on sports training. In addition, the student will distinguish the appropriate rehabilitative training based on the client's existing medical pathologies and medical recommendations.

**DEPO 1147 Prevention and Sports Injuries**

**2 Credits**

**Prerequisites: None**

In this course, the student will examine the basic terminology as well as the symptomatology of sports injuries. They will also develop skills for the prevention and management of head, neck, back, and pelvic lesions, as well as upper and lower extremities. In addition, the student will use techniques for bandaging the different anatomical areas.



**DEPO 1148 Preparatory Course for Personal Trainer Certification**  
**2 Credits**

**Prerequisites:** DEPO 1128, DEPO 1130, DEPO 1132, DEPO 1134, DEPO 1135, DEPO 1137, DEPO 1138, DEPO 1139, DEPO 1143, DEPO 1144, DEPO 1145, DEPO 1146, DEPO 1147

In this course, the student will develop the necessary skills to pass the board exam based on the guidelines established by the National Strength and Conditioning Association (NSCA) and the American College of Sports Medicine (ACSM). Will analyze the terminology related to the components of training and physical conditioning, and the requirements for the Physical Fitness Instructor licensing exam in Puerto Rico. In addition, examine the laws and regulations of the profession at the state level under the standards of the Department of Recreation and Sports (DRD).

**DEPO1149 Clinical Practice**  
**4 Credits**

**Prerequisites:** DEPO 1128, DEPO 1130, DEPO 1132, DEPO 1134, DEPO 1135, DEPO 1137, DEPO 1138, DEPO 1139, DEPO 1143, DEPO 1144, DEPO 1145, DEPO 1146, DEPO 1147 EXCEPTO DEPO 1148

In this course, the student will apply their knowledge of training and physical conditioning in a real work scenario, such as a gym, sports center, weight control clinic, school or college specialized in sports, industry or sports team that ensures health care. Also, design workouts tailored to diverse populations based on their needs in a safe and effective manner. In addition, assume a professional demeanor that includes communication skills and respect for diversity within a real work environment under the supervision of a licensed professional and with the support of group of trainers.

**EKGL 1002L Basic Electrocardiography and Laboratory**  
**2 Credits**

**Prerequisites:** EMME 1021

In this course, the student will examine the anatomy and physiology of the heart, as well as the cardiac conduction system. It also describes the electrocardiographic waves for the basic management of the diagnostic procedure known as electrocardiogram (EKG). In addition, will

demonstrate the complete procedure of an electrocardiogram (EKG).

**EMBA 1136 Embalming I**  
**2 Credits**

**Prerequisites:** BIOL 1124

In this course, students will analyze the history of embalming in the ancient, modern, and current periods, as well as the nature and purposes of embalming, and basic terminology in the study of mortuary sciences. They will analyze the skills and norms applicable in the embalming laboratory as well as the instruments, materials, and equipment used. Students will apply duties, responsibilities and professional ethics in mortuary sciences. Also, evaluate ante mortem and post mortem changes that affect the final treatment of the body.

**EMBA 1137 Embalming II**  
**2 Credits**

**Prerequisites:** BIOL 1125, EMBA 1136

In this course, the student will evaluate the vascular anatomy and variable factors within the analysis of the case before starting the embalming process. They will analyze the preservative solution and the types of embalming. The students will examine the injection method, as well as the types of incisions, the technique of blood vessel selection, drainage and sutures. In addition, they will classify the fluids, chemicals as well accessories used for embalming.

**EMBA 1138 Fundamentals of Organic and Inorganic Chemistry**  
**2 Credits**

**Prerequisites:** None

In this course, the student will classify matter, elements, compounds, solutions, and biological molecules according to their structures and properties. They will examine the elements of the periodic table to predict the formation of bonds and chemical compounds according to their location and periodic law. In addition, the student will analyze the changes that occur in chemical reactions and in the preparation of solutions as chemical and physical changes that the matter undergoes and will apply these and other related skills to particular situations of the embalming process.

**EMBA 1139 Embalming III****2 Credits****Prerequisites:** EMBA 1136, EMBA 1137

In this course, the student will evaluate findings, pathological changes, special precautions and the main purpose of the analysis of specific cases. They apply the techniques for the treatment of cranial cavity, clinical, autopsied, and infant embalming cases, as well as the particular cases of organ donation, among others. Students will distinguish the types of burns, scalds, purges, tissues, distension and detachment, as well as the treatments used during the embalming process. In addition, will explain the elements that cause the failure of embalming such as the time dedicated to the preparation of the case, insufficient amount of solution and low or high intensity of a solution, among others.

**EMBA 1140 Principles of Pathology****2 Credits****Prerequisites:** None

In this course, the student will explore the history of pathology, terminology, and the various types of acute, chronic, systemic, and terminal diseases, as well as inflammatory processes. The student will analyze the external pathogens and pathologies that affect the different systems of the human body, such as blood, cardiovascular, and bone diseases, among others, and their importance in the preservation of the human body. Will evaluate the post-mortem considerations and conditions associated with pathologies.

**EMBA 1141 Fundamentals of Transmissible and Infectious-contagious Diseases****2 Credits****Prerequisites:** None

In this course, the student will examine infectious diseases, including the infectious chain, types of infections, and the stages of infectious diseases. They will analyze communicable diseases such as AIDS, hepatitis, herpes simplex, tuberculosis, meningitis, septicemia, cytomegalovirus, Creutzfeldt-Jakob disease, syphilis, malaria, poliomyelitis, and influenza, among others. The student will apply infection control methods and the management of contagious and infectious cases in the embalming process.

**EMBA 1142 Embalming IV****2 Credits****Prerequisites:** EMBA 1136, EMBA 1137, EMBA 1139

In this course, the student will analyze the embalming process with diseases of the circulatory, respiratory and kidney system. In addition, the student will evaluate the findings and pathological changes, special precautions, and general embalming treatment in the analysis of particular cases. Likewise, will develop the skills for embalming treatment in cases of hematological, circulatory, pulmonary and kidney diseases..

**EMBA 1143 Public Health Fundamentals****2 Credits****Prerequisites:** None

In this course, the student will analyze the basic principles of public health. They will evaluate the environmental health regulations, factors concerning the embalming process, health and safety at work. In addition, the student will examine the causal statistics of morbidity and the rate and increase of mortality in Puerto Rico and the United States.

**EMBA 1144 Basic Principles of Toxicology****2 Credits****Prerequisites:** None

In this course, the student will analyze the historical background, basic principles, and branches of toxicology related to mortuary sciences. They will examine the toxicity, risk assessment, and mechanisms of toxic effects produced by xenobiotics that damage the organism. In addition, students will apply techniques on protective barriers to toxicant disposition by absorption, distribution, excretion and biotransformation. They will also evaluate soft organ responses, chemical carcinogenesis, adverse toxicants and their effects on the human body.

**EMBA 1145 Principles of Legal Forensic Medicine****2 Credits****Prerequisites:** None

In this course, the student will analyze the principles and regulations governing forensic medicine, along with its history and its various branches. Students will examine the administrative structure of the Institute of

Forensic Sciences and the functions of the divisions in charge of identification, recognition and disposition of corpses and donation of organs and tissues. Also, will evaluate the forensic procedures for the analysis and handling of medico-legal evidence.

### **EMBA 1146 Principles of Funeral Home Administration**

**2 Credits**

**Prerequisites: None**

In this course, the student will analyze the fundamental processes and the historical background of management and marketing in funeral home administration. They will explain the responsibilities and duties of the funeral director and administrator, as well as the services offered to the public. In addition, the student will examine the legal requirements and state and federal regulations for the establishment and operation of a funeral home or crematory in Puerto Rico.

### **EMBA 1147 Restorative Art and Cosmetology**

**2 Credits**

**Prerequisites: EMBA 1142**

In this course, the student will analyze the history of restorative and cosmetic art in mortuary sciences, as well as the legal aspects faced by them. They will develop skills and techniques for restorative and cosmetic art according to the anatomical structure, features, race types, tissues, and diseases present in the corpse. The student will employ embalming treatments focused on restorative and cosmetic art, taking into consideration the particular factors and the pertinent facial make-up for the cadaver.

### **EMBA 1148 Psychological Fundamentals of Death**

**2 Credits**

**Prerequisites: None**

In this course, students will develop an understanding of the process of death, the stages of mourning and grieving from a holistic perspective, with the sensibility they deserve. They will evaluate how the individual's process of loss affects their family and its relationship to funeral rites. Finally, students will reflect on the process of dying and handling emotions, as well as on the effect of these processes in their lives.

### **EMBA 1149 Microbiology and Epidemiology**

**2 Credits**

**Prerequisites: None**

In this course, students will analyze the basic principles and the historic background of microbiology and epidemiology in the context of mortuary sciences and the embalming process. They will examine the universal measures for biological waste management, biosafety, and disinfection and sterilization procedures in the handling of cadavers. Apply cellular theory and Koch's postulates to disease and mortuary processes. Evaluate infectious agents, pathogens present in food that cause diseases and the life cycle of microorganisms.

### **EMBA 1150 Business Development**

**2 Credits**

**Prerequisites: None**

In this course, students will analyze the administrative and fundamental concepts and principles of the funeral industry. They will evaluate the planning, organization, direction, and control processes of a funeral home through the application of managerial, administrative and basic marketing functions to achieve an effective operation. In addition, they will interpret legal and ethical issues as future entrepreneurs. They will also apply effective communication, promotion and public relations skills.

### **EMBA 1151 Practice Seminar and Board Exam Review**

**2 Credits**

**Prerequisites: EMBA 1138, EMBA 1149, EMBA 1136, EMBA 1137, EMBA 1145, EMBA 1140, EMBA 1139, EMBA 1144, EMBA 1141, EMBA 1146, EMBA 1148, EMBA 1142, EMBA 1143**

**Co-requisite: EMBA 1150**

In this course, students will reaffirm the skills and knowledge learned in classes during the externship in a real job scenario. They will integrate what they have learned about the profession, working conditions, norms, procedures, responsibility, and services rendered in the field of Mortuary Sciences through the practice of the role of funeral director or embalmer. The student will also examine the documents and procedures required by the Puerto Rico Board of Examiners of Embalmers as part of the application process and preparation

for the theoretical revalidation exam, as well as the material for said exam.

#### **EMBA 1152 Practice**

**6 Credits**

**Prerequisites:** EMBA 1138, EMBA 1149, EMBA 1136, EMBA 1137, EMBA 1145, EMBA 1140, EMBA 1139, EMBA 1144, EMBA 1141, EMBA 1146, EMBA 1148, EMBA 1142, EMBA 1143, EMBA 1150

In this course, the student will analyze the documents, skills and theoretical knowledge required in a funeral home, in a cremation center and in the Demographic Registry for their performance in the field of mortuary sciences. Will apply the techniques of embalming processes, cosmetic art and restorative art in clinical or medicolegal cases. Will value the knowledge acquired on funeral management, embalming, legal principles of forensic medicine, embalming chemistry, forensic toxicology, principles of pathology, microbiology and epidemiology.

#### **EMME 1011L Fundamentals of Medical Emergencies, Communication, Medical Control, and Dispatch Techniques and Laboratory**

**2 Credits**

**Prerequisites:** None

In this course, the student will analyze the history of Emergency Medical Systems, the functions of an Emergency Medical Technician (EMT), the federal and state legislations that regulate the professional practice, as well as the handling and care of specialized equipment. They will also develop basic knowledge related to safety in a landing zone during emergency air medical transport operations. In addition, the student will evaluate the theoretical compendium of the technical aspects and regulations of the communications used by the emergency medical systems of Puerto Rico and the United States. They will also develop medical-legal reports through the application of knowledge in medical terminology, including Key-10 and Alpha codes, with due understanding of their morphology and composition.

#### **EMME 1021 Anatomy and Physiology Principles**

**2 Credits**

**Prerequisites:** None

In this course, the student will examine basic concepts and principles of human anatomy and physiology. They will also analyze the structure and function of the different systems of the human body. It also reviews the malfunctioning of the organs and their possible pathological effects on the body.

#### **EMME 1028 Patient Assessment and Management of Medical Technology-Dependent Persons**

**1 Credit**

**Prerequisites:** None

In this course, the student will evaluate the equipment, its functions and the management of the unit for the safety of the patient and personnel. Students analyze the anatomy and physiology of the human body systems for the evaluation and diagnosis of the patient through physical examination techniques and procedures. In addition, will examine communication and documentation systems taking into consideration roles, responsibilities, ethical and moral aspects.

#### **EMME 1037 Fundamentals of Pharmacology**

**1 Credit**

**Prerequisites:** MATE 1222

In this course, students will examine the origin, basic terminology, and classification of medications used in emergencies. They will analyze legal aspects and regulations governing the use and distribution of drugs, drug administration methods, and the effects of drugs on the various systems of the human body. They will also apply calculation methods for dosing infants, children, and adults. Furthermore, they will develop basic knowledge of drug administration as well as appropriate safety precautions and asepsis measures according to the basic level of the profession.

#### **EMME 1053 Cardiovascular Emergencies and Shocks**

**1 Credit**

**Prerequisites:** EMME 1021, EMME 1028, EMME 1037

In this course, students will develop the theoretical and practical knowledge required for

assessing and applying basic prehospital care for patients with cardiovascular disorders. They will explore the fundamental concepts of cardiopulmonary resuscitation and the external automatic defibrillator, as well as the pathologies of the cardiovascular system, including its management indications and corresponding treatment plans. They will apply theoretical knowledge of fluids and electrolytes in the human body, as well as the pathophysiological principles of shock.

### **EMME 1063 Respiratory Emergencies**

**1 Credit**

**Prerequisites:** EMME 1021, EMME 1028, EMME 1037

In this course, the student will analyze the anatomy of the respiratory system and its most frequent pathologies. Identifies the protocols and procedures necessary in the evaluation and diagnosis of patients with respiratory disorders. In addition, will examine the techniques and procedures for basic airway management, oxygenation and assisted ventilation in prehospital care.

### **EMME 1072 Internal Medicine and Public Health Emergencies**

**1 Credit**

**Prerequisites:** EMME 1021; **Corequisites:** EMME 1028, EMME 1037

In this course, students will develop the theoretical and practical knowledge required for managing the diseases related to the field of internal medicine that may occur in emergency situations. They will examine the various pathophysiologicals and disorders of the central nervous, endocrine, gastrointestinal, urinary, and renal systems. Additionally, they will apply basic knowledge of the management of adult, geriatric, environmental, infectious, and sexually transmitted disease emergencies.

### **EMME 1077 Obstetric and Gynecological Emergencies**

**1 Credit**

**Prerequisites:** EMME 1021, EMME 1028, EMME 1037

In this course, students will develop theoretical and practical knowledge of the management of gynecological and obstetric emergencies. They will examine the characteristics of the assessment of obstetric and gynecological patients. Finally,

they will apply basic knowledge of care for an uncomplicated emergency delivery.

### **EMME 1082 Neonatal and Pediatric Emergencies**

**1 Credit**

**Prerequisites:** EMME 1021, EMME 1028, EMME 1037

In this course, students will develop theoretical and practical knowledge of the basic management of neonatal and pediatric emergencies. To this end, they will explore the procedures related to neonatal and pediatric patient assessment. They will examine the neonatal and pediatric patient the symptomatology related to the most common medical conditions or injuries and the appropriate treatment, according to established protocols.

### **EMME 1103L Preparatory Course for Board Exam and Laboratory**

**1 Credit**

**Prerequisites:** EMME 1028, EMME 1137, EMME 1053, EMME1063, EMME 1072, EMME 1077; **Corequisite:** EMME 1082

In this course, students will examine basic theoretical and practical aspects of the emergency medical technician to prepare themselves for facing the first phase of their state certification exam with minimal difficulty. They will review topics on internal medicine, surgery, gynecology, pediatrics, and more. They will also apply basic knowledge of concepts, topics, techniques, and procedures used in practice stations for the certification exam.

### **EMME 1204P External Clinical Practice**

**2 Credits**

**Prerequisites:** EMME 1011L, EMME 1021, MATE 1222, EMME 1037, EMME 1028, EMME 1072, EMME 1403, EMME 1053, EMME1063, LEME 1492, SIGN 1002, EMME 1077

In this course, students will apply basic theoretical knowledge and skills pertaining to their profession as emergency medical technicians. They will also demonstrate mastery of the emergency medical technician's basic functions in the various emergency and rapid response medical services. Likewise, they will perform specific functions in type II and type III ambulances or in communication centers.



**EMME 1403 Rescue and Forensic Scene and Hazardous Materials Management****1 Credit****Prerequisites:** EMME 1021; **Corequisites:** EMME 1028, EMME 1037

In this course, students will develop theoretical knowledge of various rescue scenarios, operational control, and handling of hazardous materials. They will analyze the laws and regulations applicable to hazardous materials, equipment, and personal protective clothing. On the other hand, they will examine health hazards when responding to hazardous materials incidents and disasters as well as mass casualty incidents (MCI).

**EMME 1404 Fundamentals of Aviation Physiology and Air Transport****1 Credit****Prerequisites:** MATE 1222, EMME 1037, EMME 1028, EMME 1072, EMME 1063, EMME 1053, LEME 1492

In this course, the student will develop basic knowledge related to safety in a landing zone during emergency aeromedical transport operations. Explores the advantages and disadvantages of air transport, the types of air transports, and the basic criteria for the use of air medical response. You will also apply basic knowledge related to the clinical management of patients during air medical operations.

**EMTP 2000 Introduction to Medical Emergencies****3 Credits****Prerequisites:** None

In this course, the student will analyze the requirements and laws that regulate the emergency medical technician-paramedic (EMT-P), as well as the components, procedures, and history of this profession. Interpret their legal responsibilities and their role as an EMT-P technician. In addition, applies medical terminology for the management of patients in pre-hospital emergency situations.

**EMTP 2011 Patient Assessment****2 Credits****Prerequisites:** BIOL 2300

In this course, the student will evaluate the scene for the determination of potential hazards according to the context of the emergency. In addition, students analyze vital signs and

symptoms that suggest a medical disorder. Likewise, the student will apply the techniques to perform a physical examination in adult, pediatric and infant patients.

**EMTP 2021 Pathophysiology and Fundamentals of Public Health****3 Credits****Prerequisites:** BIOL 2300

In this course, the student will analyze the ethical, preventive, pathophysiological and public health fundamentals relevant to the evaluation and management of the patient in a medical emergency, in addition to the result of hydroelectric and acid-base imbalance. The student will apply pathophysiological knowledge in the evaluation and management of the patient. The student will also investigate the principles of disease and injury prevention in emergency care within the context of public health.

**EMTP 2030 Pharmacology****3 Credits****Prerequisites:** MATE 2101

In this course, the student will analyze the history of pharmacology, its origin and terminology. In addition, students will apply concepts and skills of mathematics and the metric system in dosage formulas. Explore the norms and regulations for the administration of medications in the area of medical emergencies. Likewise, examine medications, their classifications and routes of administration, as well as safety and asepsis measures in their administration, and the handling of intravenous fluids.

**EMTP 2040 Respiratory and Neurological Emergencies****4 Credits****Prerequisites:** BIOL 2300, EMTP 2011 y EMTP 2030

In this course, the student will analyze the composition, functioning, techniques, and forms of evaluation for the respiratory, nervous, and endocrine systems. Evaluate the management and treatment techniques for the physiopathologies that affect the respiratory, nervous and endocrine systems. In addition, apply knowledge based on the fundamental techniques for oxygenation, assisted ventilation, advanced airway management and treatment.

**EMTP 2051 Cardiovascular Emergencies****5 Credits****Prerequisites:** BIOL 2300, EMTP 2011 y EMTP 2030

In this course, the student will analyze the anatomy and physiology of the cardiovascular system, as well as the electrical physiology of the heart and its mechanical relationship through the electrocardiogram. Evaluate the different pathological manifestations of the cardiovascular system that compromise the patient's life. Likewise, the student will apply the appropriate treatment according to the updated guidelines of the American Heart Association.

**EMTP 2060 Medical Emergencies****4 Credits****Prerequisites:** BIOL 2300, EMTP 2011 y EMTP 2030

In this course, students will develop skills for patient assessment, diagnostics, and the appropriate treatment of metabolic, abdominal, and medical disorders. Analyze the different physiopathologies and disorders of the endocrine, cardiovascular, nervous and urinary systems. In addition, they will apply knowledge for the diagnosis and management of adult patients, geriatric patients, patients with physical impairments, emotional disturbances, among others. Likewise, they will evaluate diagnoses and treatments in emergencies due to allergens, intoxication and drugs.

**EMTP 2070 Polytraumatic Emergencies****5 Credits****Prerequisites:** BIOL 2300, EMTP 2011 y EMTP 2030

In this course, students will evaluate concepts related to the management and treatment of polytrauma patients, with emphasis on techniques to keep the injured patient alive during the emergency transfer. They will develop ability in the use and handling of specialized material and equipment to immobilize, and stabilize the patient, ensuring effective treatment. In addition, describe the pathology and physiology of the different types of traumas in the different anatomical structures, in order to provide the patient with an adequate management and treatment.

**EMTP 2080 Obstetric and Gynecological Emergencies****4 Credits****Prerequisites:** BIOL 2300, EMTP 2011 y EMTP 2030

In this course, the student will analyze the physiology and pathophysiology during prehospital care or management. In addition, will apply the theoretical concepts based on physiology and gynecological pathophysiology during the prehospital care or management of the non-pregnant patient. Likewise, the student will evaluate the obstetric emergency in order to determine the appropriate techniques in a prehospital environment.

**EMTP 2090 Pediatric and Neonatal Emergencies****4 Credits****Prerequisites:** BIOL 2300, EMTP 2011 y EMTP 2030

In this course, students will examine theoretical and practical knowledge in recognizing and managing neonatal and pediatric emergencies. Examine the pathophysiological principles in the evaluation and diagnostic impression. In addition, you will apply knowledge on the management of equipment and neonatal and pediatric patients in emergencies.

**EMTP 2100 Geriatric and Psychiatric Emergencies****3 Credits****Prerequisites:** BIOL 2300, EMTP 2011 y EMTP 2030

In this course, students will examine first-aid theoretical knowledge and practical skills that allow them to assess and apply necessary pre-hospital care in elderly patients, as well as recognize common conditions in this group. In addition, they will develop practical first aid skills related to the most common conditions in these patients. Likewise, will demonstrate mastery of the competencies for the identification of behavioral disorders and emergencies and the management of mental health patients in a pre-hospital environment.

**EMTP 2111 Sign Language****2 Credits****Prerequisites:** None

In this course, the student will analyze the anatomy and physiology of the human ear,



focusing on the different types of hearing loss and its effect on the communication process. Students will differentiate the idiosyncrasy of the deaf culture through the contemplation of important aspects that consider the pragmatics in the management of the deaf patient. Apply the techniques for effective communication and the important factors of signing in the various deaf languages. Interpret the laws that protect the hearing impaired.

**EMTP 2112 Preparatory Course for Paramedic Board Exam**

**3 Credits**

**Prerequisites:** EMTP 2000, EMTP 2011, EMTP 2021, EMTP 2030, EMTP 2040, EMTP 2051, EMTP 2060, EMTP 2070 y EMTP 2080

In this course, the student will analyze the acquired concepts focused on the theoretical aspect to face the first part of the state and national revalidation exam with a minimum of difficulty. In addition, the student will apply in practical stations the clinical and safety skills for the management of medical emergencies that are evaluated in the practice of the revalidation. Likewise, will examine the knowledge acquired on clinical concepts and patient evaluation, ventilatory management, intravenous therapy, drug administration, cardiology, statics and dynamics, human behavioral alterations, and management of disasters and incidents with multiple victims, among others.

**EMTP 2113 Special Operations, Rescue, and Hazardous Materials Handling**

**3 Credits**

**Prerequisites:** None

In this course, the student will analyze information about the regulations governing special rescue operations and the use of communication media in emergency situations. Students will use theoretical and practical concepts for the execution of rescue missions in aquatic and terrestrial scenarios, both in special and confined spaces, through vehicular and rope rescue techniques, as well as the use of the necessary personal protective equipment. In addition, interpret the command system during disasters, as well as in incidents involving hazardous materials, bioterrorism and weapons of mass destruction.

**EMTP 2114 Fundamentals of Aviation Physiology and Air Transport**

**2 Credits**

**Prerequisites:** MATE 2101, EMTP 2030, EMTP 2011, EMTP 2021, EMTP 2060, EMTP 2040, EMTP 2051 y EMTP 2070

In this course, the student will analyze the history of aeromedical transport, as well as the functions and skills of the flight paramedic. Examine the laws, insurance agencies, and the essential concepts of safety before, during, and after the flight in air-medical and transport operations. Evaluate the criteria for aeromedical transport and the response of aeromedical transport personnel. Also, will apply knowledge and skills related to the clinical management of patients during air-medical operations.

**EMTP 2120 Integrated Practice**

**5 Credits**

**Prerequisites:** BIOL 2300, EMTP 2000, EMTP 2011, EMTP 2021, EMTP 2030, EMTP 2040, EMTP 2051, EMTP 2060, EMTP 2070, and EMTP 2080

In this course, students will apply what they have learned throughout the Emergency Medical Technician-Paramedic program in different pre-selected clinical scenarios in order to consolidate the knowledge and skills of the profession. Apply their practical knowledge in clinical service in the areas of emergency room, ambulance dispatch and state, municipal and private medical emergency systems. Likewise, will integrate the discussion of specialized topics on the practice of paramedics, seeking the consolidation of the necessary competencies for their incorporation to the labor market by means of the approval of the theoretical-practical revalidation.

**ENFE 1001L The Nursing Profession and Laboratory**

**2 Credits**

**Prerequisites:** None

In this course, the student will examine the functions, tasks, responsibilities, laws, ethics, regulations, and requirements for obtaining the practical nursing license. In addition, the student will explain the effectiveness of the proper use of equipment and technological instruments for health promotion and disease prevention in the client, family, and community. Also, will discuss the importance and nutritional requirements according to the client's age, activity and

environment. Practice skills in simulated laboratories.

### **ENFE 1100L Fundamentals of Nursing I and Laboratory**

**2 Credits**

**Prerequisites: MICR 1001**

In this course, the student will analyze the theoretical and practical knowledge about health promotion and disease prevention during their professional performance as a practical nurse. In addition, will logically and critically examine patient information and health care procedures. Likewise, the student will investigate the competencies based on knowledge, abilities and skills of practical nursing.

### **ENFE 1200L Fundamentals of Nursing II: Lab**

**2 Credits**

**Prerequisites: ENFE 1100L, EMME 1021, MICR 1001**

In this course, the student will demonstrate mastery of the skills, procedures, and nursing intervention techniques for patient care. In addition, the student will apply the critical thinking of the practical nurse professional in patient care. Likewise, will examine the legal functions and responsibilities of the practical nurse for the benefit of patients. Students will practice nursing skills in simulated laboratories.

### **ENFE 1200P Fundamentals of Nursing Clinical Practice (Externship)**

**2 Credits**

**Prerequisites: ENFE 1100L, EMME 1021, MICR 1001**

In this course, students will apply the different practical nursing intervention procedures and techniques. They will also demonstrate first aid concepts, vital signs estimates, patient assistance in their daily activities, as well as injury and skin care. They will select the processes and documentation required for patient admission, stay, transfer, and discharge. Furthermore, they will perform nursing care tasks for patients with injuries and irrigations, burns, fractures, sample collection, oxygen therapy, and the application of heat and cold treatments, among others. Students will carry out their clinical practice in lab simulations and different healthcare scenarios.

### **ENFE 1201 Medical Surgical Nursing**

**2 Credits**

**Prerequisites: ENFE 1100L, EMME 1021, MICR 1001**

In this course, the student will analyze the role and duties, functions and competencies of the practical nurse in surgical medicine. Employ laboratory tests, measurement techniques, objective signs, values, and diagnoses required in the collection of data for the health history. In addition, will apply effective communication skills in the orientation and support of the client, family and community in the role of the practical nurse in surgical medicine.

### **ENFE 1300L Maternal and Newborn Care and Laborator**

**2 Credits**

**Prerequisites: ENFE 1100L, ENFE 1200L, ENFE 1200P, MICR 1001**

**Corequisite: ENFE 1301L**

In this course, the student will analyze the historical knowledge of obstetrics and gynecology and the contributions of nursing in this field. Students will examine the human reproductive process, the management of normal and complicated pregnancy, the process of childbirth, puerperium, and newborn care. Explain the importance of prenatal care, functions of the practical nurse, responsibilities and nursing care plans in each of the stages.

### **ENFE 1301L Pediatric Nursing and Laboratory**

**2 Credits**

**Prerequisites: None Co-requisite: ENFE 1300L**

In this course, the student will describe the characteristics of the stages of growth and integral development of the child, up to adolescence, and the intervention of the practical nurse in the care of the pediatric client through the identification of their alterations. In addition, it will identify the strategies to satisfy the basic needs of the child in the promotion of health and prevention of diseases. It will also explain the historical background of pediatric nursing, as well as the laws, rules and regulations that protect the well-being of the pediatric client within society. You will practice skills in simulated laboratories.

**ENFE 1302 P Clinical Practice – Phase I (Externship)****2 Credits****Prerequisites:** EMME 1021, ENFE 1100L, ENFE 1200L, ENFE 1200P, MICR 1001

In this course, the student will apply nursing interventions for the care of the mother, the newborn, and the pediatric patient under the supervision of a specialist of the profession. Likewise, the student will examine the practical nursing management in the different stages of pregnancy, the labor and postpartum process, and the care of the newborn. In addition, the student will use the nursing process for the prevention, promotion, rehabilitation and management of the alterations that affect the growth and development of the pediatric patient. They will perform clinical practice in simulation laboratories and in different health care scenarios.

**ENFE 1421 Human Development****2 Credits****Prerequisites:** None

The course covers the aspects of growing and normal development of the human at different ages, their basic needs, health exams and vaccination, and the proper medical, loving care, and behavior changes.

**ENFE 1422 Introduction to the Study of Illness****2 Credits****Prerequisites:** None

In this course, students study the concepts of health and disease; identify the main disorders that affect the body systems and their treatments. Students learn the definitions, classifications and etiology of various diseases and the body's defense mechanisms to combat them, in addition to providing them with the principles and techniques of first aid and help in emergency situations.

**ENFE 1423 Introduction to Geriatrics****2 Credits****Prerequisites:** None

This course instructs the student in relation to the care of elderly clients. They will study the characteristics, behaviors, physical changes, death process, cognitive, emotional, social and spiritual changes of the geriatric client to optimize

the level of understanding of the actions of the elderly to perform appropriate interventions.

**ENFE 1424 Psychiatric Nursing****2 Credits****Prerequisites:** None

In this course, students will recognize the practical nurse's interventions in mental health and psychiatric care. They will also apply therapeutic communication and logical reasoning strategies when serving clients with mental health issues. Students will interpret case studies, using critical and creative thinking in the psychiatric client care.

**ENFE 1425P Clinical Practice – Phase II (Externship)****2 Credits****Prerequisites:** EMME 1021, ENFE 1100L, ENFE 1200L, ENFE 1200P, MICR 1001**Co-requisite:** ENFE 1424

In addition, they will select the laws, norms and protocols applicable to the care of mental health and psychiatric patients. Manage the care of the patient with mental disorders related to different conditions. Likewise, differentiate the rehabilitation programs offered by the community and the government according to the patient's need. Perform clinical practice in simulation laboratories and in different health care scenarios.

**ENFE 1515 Introduction to Mental Health****2 Credits****Prerequisites:** None

The most common mental disorders and their treatment are studied. It includes the description of basic concepts in psychiatric terminology, personality, hyperactive and aggressive behavior, alcoholism, drug addiction and the community resources involved in these situations. It is expected that the student will be able to develop communication skills, logical reasoning when analyzing cases, critical and creative thinking.

**ENFE 1516 Occupational Seminar – Preparatory Course for the Practical Nursing Board Exam****2 Credits****Prerequisites:** To have approved all previous courses except for ENFE 1517P

In this course, students will review the categories of client needs as specified by the Nursing Board

safe and effective care environment, maintenance and promotion of health and psychosocial and physiologic integrity, as preparation for the practical nursing board exam. In addition, they will apply practical nursing concepts and interventions to offer nursing care for clients, families and communities. Likewise, will use different study strategies, such as simulation of clinical situations, for the development of the critical thinking required in decision-making and in the solution of health problems.

**ENFE 1517P Clinical Practice – Phase III\* (Externship)**

**4 Credits**

**Prerequisites:** EMME 1021, ENFE 1100L, ENFE 1200L, ENFE 1200P, ENFE 1201, ENFE 1300L, ENFE 1301L, ENFE 1302P, ENFE 1424, ENFE 1425P, EKGL 1002L, MICR 1001

In this course, students will apply practical nursing interventions in medicine, surgery, and emergency room scenarios. They will employ aseptic measures in the handling of medical-surgical equipment and materials when providing healthcare. They will perform electrocardiograms to clients with cardiovascular alterations. Students will carry out the clinical practice in lab simulations and different healthcare scenarios.

**ESPA 1007 Basic Spanish**

**2 Credits**

**Prerequisites:** None

In this course, the student will produce oral and written presentations using the grammatical rules that govern the Spanish language. In addition, students will analyze texts with varying degrees of complexity. Students will write with varied vocabulary, correct syntax, and proper spelling.

**ESPA 2101 College Spanish I**

**3 Credits**

**Prerequisites:** None

In this course, students will apply the basic rules of spelling, grammar, and syntax when expressing themselves orally or in writing. They will analyze literary genres, new vocabulary, and writing skills. Students will value the importance of language in the proper application of linguistic knowledge and the rules that govern oral and written communication.

**GROM 1000 Introduction to Pet Grooming**

In this course, students will identify the responsibilities and essential tasks of the professional pet groomer role. They will also examine the laws regulating the profession, methods of compensation, and proper valuation of these services in the pet grooming industry. They will develop knowledge of methodologies for grooming processes, pet accident and disease prevention, and establishment maintenance. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Professional Pet Grooming Clinic.

2 credits

Prerequisites: None

Corequisite: None

**GROM 1010 Anatomy and Animal Husbandry**

In this course, students will explain the concepts of animal anatomy and canine and feline husbandry. They will describe the skeletal, muscular, and integumentary systems in the bodies of dogs and cats. They will utilize knowledge of pet husbandry and anatomy, according to breed patterns, for cutting and grooming styles.

2 credits

Prerequisites: None

Corequisite: None

**GROM 1020 Health, Wellness, and Emergency Management**

In this course, students will analyze the factors related to pet health, well-being, and emergencies. They will compare the ways in which a preventive approach helps preserve the health and well-being of a pet. They will demonstrate knowledge of the emergency management plan and safety protocols for accident prevention. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Professional Pet Grooming Clinic.

2 credits

Prerequisites: None

Corequisite: None

**GROM 1030L Pre-Grooming Techniques and Laboratory**

In this course, students will differentiate between the types of coats and breeds of dogs and cats. They will select grooming procedures, tools, and equipment to prepare the pet for basic or complete grooming. They will apply pet care and hygiene techniques. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Professional Pet Grooming Clinic.

3 credits

Prerequisites: None

Corequisite: None

**GROM 1040L Principles of Behavior and Laboratory**

In this course, students will examine canine training terminology and methods. They will practice canine psychology theories in the analysis of pets with behavior or conduct issues. They will master animal restraint and handling skills in the work area. They will promote training techniques for dogs in their early stages of life for behavior modification and reduction of aggression levels.

3 credits

Prerequisites: None

Corequisite: None

**GROM 1100L Basic Grooming and Laboratory**

In this course, students will apply skills in the proper maintenance of pet grooming tools and equipment. They will learn product and tool selection techniques according to the pet's coat. They will organize the work area for the comfort and safety of pets and employees in the facility. They will use aseptic and safety procedures for quality grooming services. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Professional Pet Grooming Clinic.

3 credits

Prerequisites: None

Corequisite: None

**GROM 1110 Basic Business and Marketing**

In this course, students will explain the procedure for establishing a business in Puerto Rico or the administration of an existing one. They will

develop effective techniques for sales promotion and good customer service. They will prepare a business plan as a future manager or entrepreneur.

2 credits

Prerequisites: None

Corequisite: None

**GROM 1120L Grooming Cuts and Styles I and Laboratory**

In this course, students will identify the existing dog and cat grooming styles. They will associate the anatomy of the most common breeds with the pet's cutting patterns. They will employ master techniques of pattern and trimming styles. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Professional Pet Grooming Clinic.

3 credits

Prerequisites: GROM 1211, GROM 1241, and GROM 1261

Corequisite: None

**GROM 1130L Creative Grooming and Asian Fusions Laboratory**

In this course, students will examine the appropriate techniques for performing specialized cuts in creative dog grooming. They will also assess artistic expression in the creation of innovative designs for different dog breeds. In addition, they will perform specialized cuts to promote the hygiene, health, and beauty of pets. This course is part of the integration model between the Pet Grooming Professional Clinic and the academic program. Students will carry out tasks and provide direct services at the Pet Grooming Professional Clinic.

3 credits

Prerequisites: GROM 1211, GROM 1241, and GROM 1261

Corequisite: None

**GROM 1200L Advanced Grooming Techniques and Laboratory**

In this course, students will apply grooming standards and commercial and competition patterns in accordance with each breed. They will integrate advanced grooming techniques, treatments, and protocols for pets with special needs. The student will master cutting techniques, corrective grooming, and management of critical cases in pets. This course

is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Professional Pet Grooming Clinic.

3 credits

Prerequisites: GROM 1211, GROM 1241, and GROM 1261

Corequisite: None

### **GROM 1210L Grooming Cuts and Styles II and Laboratory**

In this course, students will apply the existing dog and cat grooming styles. They will examine the anatomy of the main breeds along with the grooming patterns of each pet. They will demonstrate master pattern techniques and trimming styles. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Professional Pet Grooming Clinic.

3 credits

Prerequisites: GROM 1281

Corequisite: None

### **GROM 1220L Grooming Seminar and Laboratory** **2 credits**

**Prerequisites: GROM 1281**

**Corequisite: None**

In this course, students will integrate the concepts, skills, and professional abilities required by their duties as professional pet groomers. They will apply grooming techniques and skills in an in-house laboratory within the institution, canine and feline grooming salons, among others. They will practice similar exercises on cutting techniques, error handling, and critical cases in pets. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Professional Pet Grooming Clinic.

### **GROM 1300P Grooming Practice** **4 credits**

In this course, students will practice grooming techniques and skills in veterinary clinics, canine and feline grooming salons, among others. They will use the proper tools, equipment, and treatments for effective grooming. They will demonstrate knowledge in general grooming, animal styling, accident prevention, and customer

service. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Professional Pet Grooming Clinic.

### **GROM 1301P - Grooming Practice**

In this course, students will practice grooming techniques and skills in veterinary clinics, canine and feline grooming salons, among others. They will use the proper tools, equipment, and treatments for effective grooming. They will demonstrate knowledge in general grooming, animal styling, accident prevention, and customer service. This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Professional Pet Grooming Clinic.

3 credits

Prerequisites: All GROM courses

Corequisite: None

Prerequisites: GROM 1281, GROM 1290, and GROM 1301

Corequisite: None

### **HUMA 2101 Introduction to Humanities** **3 Credits**

**Prerequisites: None**

In this course, the student will examine the fundamentals of the evolution of humanity and the historical development of the artistic, scientific, religious, and political movements of the civilizations that influenced the western world. In addition, students will distinguish the importance of the humanistic legacy and the Judeo-Christian values that led to the evolution and development of Western civilization. Likewise, they will value the historical processes that shaped the legacies of the Ancient and Middle Ages that are reflected in humanity today.

### **INGL 1109 Basic English I** **2 Credits**

**Prerequisites: None**

In this course, students will demonstrate command of the basic rules of English grammar and their usage both orally (listening and speaking) and in writing (reading and writing). They will compose sentences by using the standard conventions of English language. In addition, students will reinforce their vocabulary



knowledge for a better understanding of English in everyday situations.

**INGL 2101 College English I**  
**3 Credits**

**Prerequisites: None**

In this course, students will demonstrate proper use of the English language with a primary focus on syntax, grammar, punctuation, and spelling. Students will distinguish the parts of speech and variety of sentences emphasizing the verb tenses. Also, they will produce clear, well developed, and well-organized sentences, messages, paragraphs, and short compositions using correct capitalization, punctuation, and syntax.

**LAFE 1011 Expanded Medical Function: Preventive and Restorative Dentistry- Lab**  
**4 Credits**

**Prerequisites: Concurrent with ASFE 1011**

This is the laboratory of ASFE 1011. The student will perform laboratory activities with restorative dentistry procedures applying the principle discussed in the theory class.

**LABS 1000L Introduction to the Laboratory Assistant Profession and Laboratory**  
**3 Credits**

**Prerequisites: None**

In this course, students will analyze the functions and roles of a laboratory assistant, along with the ethical responsibilities and duties required to practice the profession in a clinical setting. They will evaluate the areas and departments within a laboratory, as well as the characteristics and functions of relevant equipment and materials. Additionally, they will discuss the laws and regulations governing the profession and relevant to the operation of clinical laboratories, as established by regulatory agencies.

**LABS 1010L General Science Compendium and Laboratory**  
**2 Credits**

**Prerequisites: None**

In this course, students will integrate basic knowledge of biology, chemistry, and physics to understand organic processes at the atomic, molecular, cellular, and tissue levels as analyzed in clinical laboratory procedures. They will justify the importance of the interactions between biochemical, physical, and inorganic factors in the study of processes that sustain cellular life.

Furthermore, they will evaluate the behavior of particles in the three states of matter, focusing on the properties of liquids, gas laws, thermodynamics, and motion, and their applications in a clinical laboratory setting.

**LABS 1020L General Data Entry and Billing Processes for Laboratory Services**  
**3 Credits**

**Prerequisites: MEDT 1000**

In this course, students will distinguish between different healthcare plans, their coverage, and fees for laboratory services. They will interpret medical orders to assign correct codes in laboratory service billing. Additionally, they will apply the regulations established by the HIPAA law to the provision of laboratory services. Students will demonstrate basic skills for data entry, information management, and the billing process of clinical laboratory services using the SAIL information system and others.

**LABS 1030L Handling of Samples in Hematology, Chemistry, Urinalysis, Coagulation, Serology, Immunology, and Molecular Biology, and Laboratory**  
**4 Credits**

**Prerequisites: LABS 1000L**

In this course, students will apply processes to assist in the pre-analytical phase of samples, such as receipt, registration, preparation, packaging, transportation, and preservation or storage of specimens. They will evaluate the different types of specimens suitable for each test and the qualities required for their analysis. They will analyze rejection criteria related to the absence of information on the medical order, incorrect specimen labeling, sample quality, and other factors established by the laboratory. Furthermore, they will employ specific procedures for assistance in the management of each type of sample. This course includes the use of a simulator.

**LABS 1040L Handling of Samples and Blood Components in Blood Banks, and Laboratory**  
**2 Credits**

**Prerequisites: LABS 1000L**

In this course, students will apply processes to assist in the pre-analytical phase of blood bank samples, such as receipt, registration,



preparation, packaging, transportation, and preservation or storage of specimens. They will identify the different types of specimens suitable for each test. They will recognize the qualities that make a specimen suitable for analysis. They will apply rejection criteria related to the absence of information on the medical order, incorrect specimen labeling, sample quality, and others established by the laboratory. They will employ specific procedures for assistance in handling each type of sample. They will classify units based on their packaging and temperature. Students will explain the process of receiving, weighing, and centrifuging blood components. They will apply the criteria for separating and storing blood components according to their source and temperature.

### **LABS 1050L Handling of Pathological Samples and Laboratory**

**3 Credits**

**Prerequisites:** BIOL 1000

In this course, students will apply processes to assist in the receipt, registration, preparation, transportation, and storage of pathological samples (surgical specimens) with an emphasis on maintaining the integrity of the specimen. They will develop techniques for proper handling of samples and laboratory equipment.

### **LABS 1060L Integrative Seminar: Laboratory Assistan**

**2 Credits**

**Prerequisites:** LABS1000L, LABS1010L, LABS1020L, LABS1030L, LABS1040L, LABS1050L

In this course, students will apply the necessary skills to perform special procedures according to their role as laboratory assistants. They will reflect on their experiences in practice and the acquisition of knowledge in the different workplace environments in hospitals. They will prepare a professional portfolio, showcasing certifications such as OSHA, HIPAA, and CPR, among others.

### **LABS 1070p Laboratory Assistant Clinical Practice**

**4 Credits**

**Prerequisites** LABS1000L, LABS1010L, LABS1020L, LABS1030L, LABS1040L, LABS1050L

In this course, students will employ universal

precautions, laws, and biosafety protocols to ensure a safe working environment. They will relate the information in medical orders with the necessary samples and tests, along with administrative billing processes. Moreover, they will analyze biological samples using industry-standard procedures and the appropriate techniques, instruments, and technological equipment to obtain reliable results.

### **LASD 2006 Dental Materials- Lab**

**2 Credits**

**Prerequisites:** Concurrent with ASDE 2006

This is the laboratory of ASDE 2006. The student will perform laboratory activities with dental materials applying the principle discussed in the theory class. Emphasis is placed on why particular materials and techniques are used, and on how dental materials can be safely handled.

### **LASD 2007 Clinical Sciences - Lab4 Credits**

**Prerequisites:** Concurrent with ASDE 2007

This is the laboratory of ASDE 2007. The student will perform laboratory activities with dental clinical sciences applying the principle discussed in the theory class. The students practice the clinical procedures and the assembly of the dental trays.

### **LASD 2008 Dental Radiology - Lab**

**2 Credits**

**Prerequisites:** Concurrent with ASDE 2008

This is the laboratory of ASDE 2008. The student will perform laboratory activities with dental radiology procedures applying the principle discussed in the theory class.

### **LEME 1492 Trauma Emergencies Lab**

**1.5 Credits**

**Prerequisites:** EMME 1021, EMME 1028, EMME 1037; **Corequisite:** EMME 1053

In this course, the student will apply theoretical and practical knowledge for the evaluation and attention in basic prehospital care to patients with different types of trauma. Students will examine the statistics of trauma, its consequences, its management and the corresponding treatment plan for each trauma in the different parts of the body. Likewise, will explore the management of different equipment for patients with traumatic emergencies.

**LITE 1001 Computer Literacy****2 Credits****Prerequisites: None**

This course offers students the opportunity to learn the historical development of computers and their impact on society, the same components and functions, terminology, operating systems, Internet basics, networking, word processing, database data and future projections. This course is designed for students interested to learn about the management of a computer for the simplification of jobs and tasks, as well as initiating its knowledge in the field of computing.

**MASD 1001 Management Office and Dental Billing****2 Credits****Prerequisites: ASDE 1011**

The principles and practice of dental administration, including the concepts of patient, office and dental team management will be presented for discussion. Emphasizes the written and computer management of patient charts and records, appointment scheduling, insurance forms, and billing as applicable to a dental office. Verbal and written communication are discussed, along with ethics and psychology in the dental practice.

**MASJ 1001 Introduction to Massage Techniques****2 Credits****Prerequisites: None**

In this course, the student will analyze the history, principles and techniques of massage and aromatherapy, as well as the professional, ethical and legal aspects of massage therapy. Students will distinguish the functions of the massage therapist, types of clients and consultation techniques, and the elements of ambiance, equipment, products, aromatic essences and essential oils used. In addition, they will describe the most used massages, their indications and health benefits. Likewise, they will apply hygiene, cleaning, safety and first aid procedures in the massage room, as well as basic manipulations for the realization of massages.

**MASJ 1143 Swedish Massage****2 Credits****Prerequisites: None**

In this course, the student will identify the techniques of Swedish massage, its history and influential people. It will explain the benefits of Swedish massage, manipulative techniques and classic movements. In addition, the student will apply the manipulative techniques of Swedish massage to perform a full back and upper extremity body massage in real time. **This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct assignments and services in the Beauty Clinic.**

**MASJ 1144L Lymphatic Massage and Laboratory****2 Credits****Prerequisites: None**

In this course, students will apply what they have learned about manual lymphatic drainage techniques. In addition, students will relate the concepts of anatomy, structure and function of the lymphatic, integumentary, endocrine and circulatory systems. Also, will experience the sedative touches and rhythmic movements in manual lymphatic drainage therapy. This course is part of the integration model between the Beauty Clinic and the academic program. **The student will perform direct tasks and services in the Beauty Clinic. The service to be offered in this course at the centers with Beauty Clinics is: lymphatic massage. The approximate integration time will be 3 hours.**

**MASJ 1145 Structured Kinesiology and Biomechanics****2 Credits****Prerequisites: EMME 1021**

In this course, the student will examine the fundamentals of structural kinesiology and biomechanics. Explain the function of the different articular groups of the body as a basis for the study of the locomotor system. In addition, apply the acquired knowledge of structural kinesiology and biomechanics in order to manage the client's discomfort.

**MASJ 1146 Somatic Therapy****2 Credits****Prerequisites: EMME 1021**

In this course, the student will examine the history of massage and somatic therapy techniques, such as chiromassage, aquatic and energetic techniques, the application of suction cups (fire cups), acupressure, craniosacral massage and lomi-lomi. It will also differentiate the articular groups of the body. In addition, he will discuss the possible physical, psychological and spiritual effects of emotions on the person. It will also explain the benefits and contraindications of somatic therapies and their general effects. **This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Beauty Clinic. The service to be offered in this course at the centers with Beauty Clinics is: lymphatic massage. The approximate integration time will be 3 hours.**

**MASJ 1147L Trigger Point and Deep Tissue Therapy and Laboratory****2 Credits****Pre-requisite: EMME 1021**

In this course, the student will analyze the concepts, terminology and principles of deep tissue and trigger point techniques. Examine the operation, precautions, indications and contraindications of deep tissue and trigger point massage techniques. Likewise, students will apply strategies and therapeutic plans according to the indications for the treatment of symptoms and injuries in order to obtain a successful therapeutic session. **This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Beauty Clinic.**

**MASJ 1150 Hydrotherapy and Special Populations Massage****2 Credits****Prerequisite: MASJ 1145**

In this course, the student will examine the theoretical fundamentals related to massage and hydrotherapy techniques for special populations. Students will differentiate manipulative massage techniques and treatments directed to special populations, such as prenatal, infant and geriatric

massage, and spa techniques. Apply different massage and hydrotherapy techniques to special populations in general. **This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Beauty Clinic.**

**MASJ 1151L Preparatory Course for Massage Board Exam and Laboratory****2 Credits****Prerequisites: EMME1021, MASJ1155L, MASJ1152, MASJ1145, MASJ1143****Corequisites: MASJ2009P, MASJ1150**

In this course, the student will examine the theoretical and practical knowledge essential for the massage therapist as established in the basic level of their profession. Evaluate the documents and procedures required by the Board of Massage Therapist Examiners. Likewise, the student will apply the skills of a professional massage therapist as part of their preparation for the revalidation exam.

**MASJ 1152 Principles of Medical Terminology, Traumatology, and Clinical Pathology****2 Credits****Prerequisite: None**

In this course the student will explain the medical language, pathologies and traumas corresponding to the field of massage and health. Students will analyze the current medical terminology focused on massage, as well as the prefixes, roots and suffixes of each of the medical terms. Evaluate the pathologies and dysfunctions related to the different body systems, including descriptions, symptomatology and main treatments.

**MASJ 1153 Professional Ethics / Development and Management of a Salon (Spa)****2 Credits****Prerequisite: None**

In this course, the student will reflect on the characteristics and responsibilities of a successful entrepreneur in business management and therapeutic massage. Examine the types of spas, operating requirements, permits, and contracts necessary for the establishment of a business. In addition, prepare a business plan aimed at the administration and management of a spa salon.

**MASJ 1154L Oriental Techniques (Shiatsu and Thailand) and Laboratory**

**1 Credit**

**Prerequisite: None**

In this course, the student will analyze the history and techniques of shiatsu and Thai massage. Develop skills for the evaluation and energetic healing of the body by means of the shiatsu technique, as well as for the realization of other therapeutic processes. In addition, will perform a shiatsu massage routine and a Thai massage routine, with relevant stretching.

**MASJ 1155L Sport Massages and Laboratory**

**1 Credit**

**Prerequisite: MASJ 1147L**

In this course, the student will examine the theoretical and practical fundamentals of sports massage. Discuss the most common types of injuries, traumas, and pathologies caused by sports injuries. In addition, apply the techniques of sports massage according to the athlete's needs.

**MASJ 2009P Externship**

**3 Credits**

**Prerequisites: MASJ 1001, EMME 1021, MASJ 1152, MASJ 1143, MASJ 1145, MASJ 1144L, MASJ 1146, MASJ 1147L, MASJ 1154L, REFL 1003, MASJ 1155L, MASJ 1153**  
**Co-requisites: MASJ1151L, MASJ1150**

In this course, the student will apply the methods, techniques and procedures learned through the Professional Massage Therapist Program in a real work scenario under the coordination and supervision of a specialist in this profession. Perform therapeutic massages in compliance with asepsis, hygiene, cleanliness and safety measures and based on the client's needs. In addition, will demonstrate ethical conduct in compliance with the laws and regulations applicable to the professional massage therapist. **This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Beauty Clinic. The service to be offered in this course at the centers with Beauty Clinics is: therapeutic massage. The approximate integration time will be 20 hours.**

**MATE 1222 Basic Mathematics**

**2 Credits**

**Prerequisites: None**

In this course, the student will apply knowledge of basic mathematics in practical exercises and everyday situations. Students will solve basic mathematical operations of addition, subtraction, multiplication, and division in numerals, integers, decimals, and fractions. In addition, students will use concepts of percentages, ratios, proportions, and units of weight and measurement.

**MATE 2101 College Mathematics I**

**3 Credits**

**Prerequisites: None**

In this course, the student will analyze the characteristics of the set of real numbers, the concepts of ratios, proportions and percentages used in everyday life. Likewise, students will apply the concepts of equations and linear inequalities of one variable in everyday situations. Likewise, they will examine the fundamental concepts of algebraic expressions and polynomials. In addition, they will evaluate the concepts of measurement and conversion factors in the solution of daily and professional problems.

**MEDT 1000 Medical Terminology in the Laboratory**

**2 Credits**

**Prerequisites: None**

In this course, students will identify the concepts of roots, prefixes, suffixes, and etymology in medical terminology. They will analyze medical terms used to designate the systems that make up the human body. They will distinguish common tests used for diagnosis and follow-up after treatment, the medications that interfere with these tests, and the special instructions for each one. They will interpret medical orders by applying medical terminology.

**MICR 1001 Microbiology Principles**

**2 Credits**

**Prerequisites: None**

**Correquisite: ENFE 1100L**

In this course, the student will examine the principles of microbiology, health promotion and disease prevention. Explain pathogens, morphology, physiology, and infection control. In addition, identify the methods of sterilization and disinfection to prevent diseases, improve the

quality of life and maintain optimal health conditions.

**MICR 1000L Handling of Samples and Basic Microbiology and Parasitology Concepts, and Laboratory**

**3 Credits**

**Prerequisites:** None

**Corequisite:** ENFE 1100L

In this course, students will examine the basic concepts of microbiology and parasitology, the classifications and characteristics of common etiological agents, and the transmission methods of high-risk infectious diseases. They will apply sample handling procedures in the pre-analytical phase, including receipt, registration, preparation, packaging, transportation, preservation or storage of specimens, culture media, and excreta emulsions. Students will identify different types of specimens suitable for each test and the appropriate qualities for their analysis. They will evaluate rejection criteria related to the absence of information on the medical order, incorrect specimen labeling, sample quality, and other criteria established by the laboratory.

**PASD 2000 Clinical Practice (Externship)**

**4 Credits**

**Prerequisites:** Approved all previous courses, except ASDE 2009

During this practice, the students will perform integrated procedures of Dental Assistant in an outside place (dentistry office) selected by the institution, under the coordination of a teacher and supervision of a Dentistry specialist. It focuses on professional conduct and communication skills, delivering dental care, oral diagnosis and treatment planning, dental instruments and materials, dental radiology, expanded functions, and dental office management. The Clinical Practice is performed in external hospitals or clinical facilities.

**PSYC 1110 Principles of Community Social Psychology**

In this course, students will investigate the phenomena of collective groups or communities based on social and environmental factors. They will promote actions aimed at improving the living conditions of the individuals. They will develop skills for the management of the territorial and participatory aspects of the community and,

therefore, of society, in different intervention processes for generating long-term changes in the social systems in which those groups are embedded.

1 credit

Prerequisites: *ESPA 1007*

**REFL 1003 Reflexology, Music Therapy and Aromatherapy**

**2 Credits**

**Prerequisites:** EMME 1021

In this course, the student will examine the theoretical and practical fundamentals of the arts of reflexology, music therapy and aromatherapy. Students will identify the specific techniques and massages of reflexology, as well as their effects and those of music therapy and aromatherapy on human physiology and behavior. In addition, students will apply different relaxation techniques prior to a massage session that combines elements of the studied arts. **This course is part of the integration model between the Beauty Clinic and the academic program. The student will perform direct tasks and services in the Beauty Clinic.**

**SEMI 1005 Academic Adaptation and Professional Life Seminar**

**1 Credit**

**Prerequisites:** None

In this course, students will develop essential skills for their training and transition from university life to their entry into the workforce. They will participate in learning experiences aimed at enhancing self-knowledge and exploring the possibilities of university studies and career paths. In addition, they will explain the competencies sought by employers with the support of available resources. Likewise, they will establish successful strategies for making progress in their academic program and for planning and entering the job market.

**SIGN 1002 Sign Language**

**1.5 Credits**

**Prerequisites:** None

In this course, students will examine the anatomy and physiology of the human ear while focusing on the various types of hearing loss and their effects on the communication process. Explore the idiosyncrasies of Deaf culture, as well as important aspects in the management of deaf



patients and the various techniques for effective communication. Review the laws that protect hearing-impaired people. Apply basic sign language, including syntax, manual spelling and vocabulary.

### **VETR1000 - Introduction to Veterinary Medicine and Animal Biosafety**

In this course, students will assess the ethical elements and responsibilities of a veterinary assistant in accordance with safety, health promotion, and legal regulations. They will apply technical skills in biosecurity, labor risks, biological risk factor controls, infection transmission control mechanisms, area and equipment sterilization, among others. Furthermore, they will provide guidance on pet management and responsibilities for the owners.

2 credits

Prerequisites: None

Corequisite: None

### **VETR 1010L - General Principles of the Veterinary Operating Room and Laboratory**

In this course, students will identify the role of veterinary assistants in surgical procedures. They will practice assistant skills for preparing the patient before, during, and after any surgical procedure. In addition, they will apply skills in the identification, handling, care, and packaging of surgical instruments.

2 credits

Prerequisites: None

Corequisite: None

### **VETR 1020L - Anatomy and Physiology of Animals and Laboratory**

In this course, students will identify the body systems of animals and their functions. They will describe the composition and organization of the structures of body systems, their functions, and the relationship between them in mammals. They will use veterinary terminology appropriately in their profession.

3 credits

Prerequisites: None

Corequisite: None

### **VETR 1100 - Veterinary Microbiology**

In this course, students will examine the principles of veterinary microbiology. They will also explain the morphology, physiology, genetics, and metabolism of different types of

microorganisms (bacteria, viruses, parasites, protozoans, and fungi). They will discuss concepts related to living beings and the microorganisms that surround them to understand their impact on the main diseases of animals, as well as in the food industry.

2 credits

Prerequisites: VETR 1000

Corequisite: None

### **VETR 1110 - Veterinary Pathology, Toxicology, and Pharmacology**

In this course, students will discuss the anatomical, physiological, and chemical alterations that occur in the animal organism as a result of a disease. They will relate the clinical symptoms presented in animals to the main forms of diagnosis and the corresponding therapeutic processes. They will demonstrate knowledge of techniques for administering and dosing veterinary medications and treatments. They will describe the effects of drugs on animals, the modifications of pathological processes, and the alterations they cause.

2 credits

Prerequisites: MATE 1222, VETR 1020L

Corequisite: None

### **VETR 1120L - Principles of Veterinary Nursing and Laboratory**

In this course, students will distinguish the fundamental methodological bases of veterinary nursing. They will identify the functions, duties, and limitations of the veterinary nurse. They will describe the protocols in emergency situations. They will apply assistance skills before, during, and after a surgical intervention.

3 credits

Prerequisites: VETR 1020L

Corequisite: None

### **VETR 1130L - Management, Care, and Diseases of Farm Animals and Laboratory**

In this course, students will analyze concepts related to animal husbandry, agriculture, nutrition, and the most common diseases. They will compare the genetic bases, ethology, and production processes of farm animals. Students will demonstrate knowledge about the care, prevention, and first aid for farm animals. They will apply skills in hospital facility management for the care of farm animals.

3 credits

Prerequisites: VETR 1000, VETR 1020L

Corequisite: None

**VETR 1140L - Clinical Veterinary Procedures Laboratory**

In this course, students will examine Occupational Safety and Health Administration (OSHA) regulations applicable to the practice of veterinary medicine. They will practice the collection and handling of different types of samples for obtaining accurate diagnosis and treatment under the supervision of the veterinarian. They will differentiate between hematology, immunology, urinalysis, blood chemistry, microbiology, parasitology, and cytology, among others.

3 credits

Prerequisites: VETR 1000, VETR 1010L, VETR 1020L

Corequisite: None

**VETR 1200 - Principles of Veterinary Dentistry**

In this course, students will identify the oral and dental anatomy of domestic animals with special emphasis on the dog, cat, and horse. They will classify the most common instruments and materials in dental practice. They will discuss the most common lesions of the oral cavity, their etiology, symptoms, and treatment options.

1 credit

Prerequisites: VETR 1000, VETR 1010L, VETR 1020L

Corequisite: None

**VETR 1210 - Animal Nutrition**

In this course, students will explain the basic elements of animal nutrition. They will classify food according to its composition, calories, and nutritional value. They will examine methods for estimating food consumption, as well as food digestibility and factors that modify it.

1 credit

Prerequisites: VETR 1000, VETR 1020L

Corequisite: None

**VETR 1220L - Introduction to Veterinary Radiology and Sonography and Laboratory**

In this course, students will analyze the principles of the most suitable radiological and ultrasound techniques for diagnostic approaches. They will identify the anatomical organs in the thoracic and abdominopelvic cavities. They will practice

ultrasound and radiography techniques in different anatomical areas.

3 credits

Prerequisites: VETR 1000, VETR 1010L, VETR 1020L

Corequisite: None

**VETR 1300P Veterinary Clinical Practice**

In this course, students will use the necessary procedures and protocols for working with animal health. They will collaborate with the veterinarian in the application of appropriate restraint, handling, emergency, and first aid techniques before, during, and after surgical procedures, among others. They will demonstrate professional, ethical, respectful, and confidential behavior in handling cases.

6 credits

Prerequisites: *All VETR courses*

**VETR 1301P - Veterinary Clinical Practice**

In this course, students will use the necessary procedures and protocols for working with animal health. They will collaborate with the veterinarian in the application of appropriate restraint, handling, emergency, and first aid techniques before, during, and after surgical procedures, among others. They will demonstrate professional, ethical, respectful, and confidential behavior in handling cases.

3 credits

Prerequisites: All courses, except for PSYC 1110

Corequisite: None



***CONSTRUCTION TRADES  
ACADEMIC PROGRAMS***

# Diploma in Electricity with Renewable Energy

## DESCRIPTION

The Electricity with Renewable Energy Program will train students in the theoretical and practical knowledge of installing, maintaining, and repairing electrical systems at the residential, commercial, and industrial levels. Students will examine the laws that regulate the profession, electrical principles, and formulas, as well as aspects of the development and management of the electrical technician. They will also develop skills in occupational safety, electrical instrumentation, lighting, and electrical systems, among others. Upon completing 500 hours of study, students will be able to take the Expert Electricians Assistant exam offered by the Puerto Rico Board of Examiners of Expert Electricians. After fulfilling all legal requirements, students can practice their profession as expert electricians.

## PROGRAM COMPETENCIES

1. Apply the theoretical and practical knowledge of the profession related to the installation, maintenance and repair of electrical systems in accordance with the standards established by the National Electric Code (NEC) and local regulations.
2. Propose effective solutions in electrical installation projects based on needs analysis, availability of materials, budgetary considerations, and contractual agreements with clients or employers.
3. Use technological, computer and digital media effectively for decision-making in the performance of duties and responsibilities in their work area.
4. Communicate ideas orally and in writing assertively and effectively in the performance of their duties as an assistant electrical surveyor or electrical surveyor.
5. Logically and critically analyze information and procedures related to their professional field in the electrical installation industry.
6. Demonstrate collaborative work skills with a strong sense of responsibility, ethics, respect for diversity and good moral judgment, as well as in compliance with the laws and regulations governing the profession.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

8 Credits in Core Courses

25 Credits in Major Courses

**33 Total Credits**

## CORE COURSES

SEGU 1044	Occupational Safety	2
ELED 1002	Principles and Formulas of Electricity	2
LAED 1002	Use and Identification of Measurement Devices and Instruments: Laboratory	2
TECN 1003	Development and Management of the Technician	2
		<b>8</b>

## MAJOR COURSES

ELED 1001	National Electric Code (NEC) and Regulations of the Electrical Professional	2
ELED 1010	Residential and Commercial Electrical Systems	2
ELED 1004	Illumination: Laboratory	2
ELED 1006	Industrial Electrical Equipment	2
ELED 1008	Renewable Energy Systems	2
ELED 1009L	Preparatory Course for Board Exam and Laboratory	3
ELED 1110L	Electrical Branch Circuits and Laboratory	4
LAED 1005	Transformers and Electrical Substations: Laboratory	4
LAED 1007	Magnetic Controllers, PLC and Motors and Laboratory	4

**25**

## TOTAL CREDITS

**33**

## NOTES:

- Graduates of the program who aspire to offer their services as electrical surveyors must pass the exam offered by the Board of Electricians of Puerto Rico and meet the requirements of occupational experience to be able to work the profession in P.R.

# Diploma in Refrigeration and Air Conditioning with Inverters

## DESCRIPTION

The Refrigeration and Air Conditioning with Inverters Program prepares the student to perform installation, service and repair tasks of refrigeration and air conditioning equipment with inverters at residential, commercial and industrial levels. The graduate of this program will be able to apply skills for the operation of refrigeration equipment and the interpretation of automotive cooling and air conditioning system schematics. In addition, they will be able to work as refrigeration and air conditioning technicians in manufacturing industries, commercial enterprises, refrigeration and air conditioning service companies and their own businesses as established in the basic level of their profession and after complying with the laws that regulate it.

## PROGRAM COMPETENCIES

1. Apply theoretical and practical knowledge related to residential and commercial refrigeration, cooling systems, and automobile air conditioning systems, among others.
2. Logically and critically analyze the information and procedures related to the laws and rules that regulate the profession, occupational safety, and environmental protection.
3. Communicate ideas assertively and efficiently while performing their functions as air conditioning with inverters and refrigeration technicians.
4. Utilize the technological and computer resources available in the use of essential instruments for the maintenance and repair of refrigeration and air conditioning equipment. Encourage collaborative work and interpersonal skills with a strong sense of responsibility and respect for diversity, good moral and ethical judgment, and compliance with the laws.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

8 Credits in Core Courses

28 Credits in Major Courses

**36 Total Credits**

## CORE COURSES

SEGU 1044	Occupational Safety	2
ELED 1002	Principles and Formulas of Electricity	2
LAED 1002	Use and Identification of Measurement Devices and Instruments: Laboratory	2
TECN 1003	Development and Management of the Technician	2
		<b>8</b>

## MAJOR COURSES

AIRR 1001	Laws and Regulations of the Profession of Refrigeration Technicians	2
LAIR 1001	Mechanical Instrumentation: Lab	2
AIRR 1002	Refrigeration Principles and Cycle	2
LAIR 1002	Domestic Refrigeration and Air Conditioning with Inverts	4
AIRR 1003	Environmental Protection Agency (EPA): Sections 608 and 609	2
LAIR 1003	Commercial Refrigeration and Air Conditioning: Lab	4
AIRR 1004	Automotive Air Conditioning	2
LAIR 1004	Automotive Air Conditioning: Lab	4
AIRR 1005	Preparatory Course for Board Exam	2
LAIR 1005	Magnetic Controls, Sensors, Compressors, and Motors	4
		<b>28</b>
<b>TOTAL CREDITS</b>		<b>36</b>

## NOTES:

- The Graduates of the Refrigeration and Air Conditioning with Inverters program who aspire to offer services as appliance and commercial equipment repairers must pass the exam offered by the Board of Refrigeration and Air Conditioning Technicians of Puerto Rico in order to work the profession in P.R. Also, for the handling of refrigerants, an EPA License is required.

# Diploma in Sound and Security Alarm Technician

## DESCRIPTION

This study program offers the student the opportunity to acquire the technical and practical knowledge to perform installation, maintenance and repair of security, audio and video systems in cars, residences and businesses. It includes the principles of the automotive electrical system, basic and digital electronics, connections and electrical wiring for the installation of alarms, trackers, radios, horns, amplifiers, equalizers, video systems and monitors. Among other topics, the digital system of Programmable Logic Circuits (PLC) applied to the sound industry, lighting and alarm programming is studied. The graduate of this program will be able to work as: Alarm and Sound Technician, Alarm Installer, Automotive Audio Technician and occupy managerial and sales positions in commercial companies, security service companies, audio and video equipment sales establishments for residences, businesses and cars.

## PROGRAM COMPETENCIES

1. Explain the fundamental concepts of your program of study.
2. Apply the theory of their areas of study.
3. Develop psychomotor skills for the performance of occupational procedures.
4. Transfer competencies to the occupational environment.
5. Adapt to present and future work scenarios, through strategies and activities that promote group work and interpersonal relationships.
6. Integrally develop values through the promotion of activities that improve their performance as a member of the community.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

10 Credits in Core Courses

26 Credits in Major Courses

**36 Total Credits**

## CORE COURSES

SEGU 1043	Occupation Safety	2
ELED 1000	Fundamentals of Electricity	2
LATE 1202	Electrical Instrumentation: Lab	2
TECN 1001	Development and Management of the Technician	2
MATE 1221	Applied Mathematics	2
		<b>10</b>

## MAJOR COURSES

SONI 1014	Principles of Sound and Acoustic	2
MECA 1001	Introduction to Auto Electricity	2
ELEC 2001	General Electronics	2
AUDI 1002	Sound and Video Equipment (Residential, Commercial and Auto)	2
AUDI 1003	Maintenance and Repairs of Sound and Video Equipment – Lab (Residential, Commercial and Auto)	2
ACUS 1002	Acoustic Design (Loudspeakers and Acoustic Rooms)	2
SONI 1015	Security Alarm Systems (Residential)	2
ALRM 1004	Installations of Security Alarm Systems: Lab (Residential)	2
SONO 1016	Security Alarm Systems (Commercial and Auto)	2
ALRM 1005	Installation of Security Alarm Systems (Commercial and Auto Systems): Lab	2
ACUS 1003	Customization and Alarm Designs	2
CCTV 1001	CCTV Surveillance Systems	2
LCCT 1002	Laboratory CCTV Surveillance Systems	2
		<b>26</b>

## TOTAL CREDITS

**36**

# Diploma in Plumbing Technician

## DESCRIPTIONS

The Plumbing Technician program will provide students with technical and practical knowledge in the plumbing field at a residential and commercial level. Program graduates will be able to apply skills related to occupational safety, equipment operation, reading and interpretation of plumbing plans, and pluvial systems, as well as installation, maintenance, and repair techniques for plumbing equipment and accessories. After complying with the requirements of the regulatory laws, the student will be able to work as a plumbing technician.

## PROGRAM COMPETENCIES

1. Apply the theoretical and practical knowledge of the profession related to residential and commercial plumbing in accordance with the standards established by the International Plumbing Code (IPC) and local regulations.
2. Propose effective solutions in plumbing installation projects, gas systems, fire systems, water pumps, septic tanks, aqueducts and sewers, among others, taking into consideration the analysis of needs, the availability of materials, budget negotiations and contractual agreements with clients or employers.
3. Communicate assertively and effectively their ideas, orally and in writing, while performing their duties as apprentice, plumber or master plumber.
4. Use available technological and computerized means for decision making in the performance of duties and responsibilities as an apprentice plumber, or master plumber.
5. Logically and critically analyze information and procedures related to their professional field in the plumbing industry.
6. Demonstrate collaborative work skills with a high sense of responsibility, respect for diversity, and good moral and ethical judgment in their professional field, as stipulated in current regulations.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

6 Credits in Core Courses  
27 Credits in Major Courses

## 33 Total Credits

## CORE COURSES

SEGU 1044	Occupational Safety	2
MATE 1221	Applied Mathematics	2
TECN 1003	Development and Management of the Technician	2
		<b>6</b>

## MAJOR COURSES

PLOM 1023	Use and Handling of Copper Welding Tools	2
PLOM 1024	Introduction to the Plumbing Technician Occupation	2
PLOM 1016	Basic Plumbing Plans and Designs	2
PLOM 1025	Intermediate Plumbing Plans and Designs	2
PLOM 1026	Sanitary and Potable Water Systems (Residential and Commercial)	4
PLOM 1027	Design of Tank Systems, Water Pumps, Handling of Liquids and other Fluids	2
PLOM 1028	Advanced Plumbing Plans and Designs	4
PLOM 1029	International Plumbing Code (IPC) and Regulations	2
PLOM 1030	Septic, Aqueduct and Sewer Systems	2
PLOM 1031	Gas Piping, Fire Fighting, and Agricultural Irrigation Systems	2
PLOM 1035	Preparatory Course for the Theoretical Board Exam	1
PLOM 1036L	Preparatory Course for the Board Exam: Drawing and Laboratory	1
PLOM 1037L	Preparatory Course for the Practical Board Exam: Laboratory	1
		<b>27</b>
<b>TOTAL CREDITS</b>		<b>33</b>

## NOTES:

- The graduates of this program must pass exams offered by the Plumbers Examination Board in order to work as a plumber or master plumber in Puerto Rico.

# Diploma in Construction Technician

## DESCRIPTION

The Construction Technician Program will prepare students with the knowledge and skills necessary to perform various tasks related to light construction, such as basic welding, carpentry, masonry, polished cement finishing, and other finishing work. Students will handle materials, equipment, tools, and construction drawings, along with tasks involving epoxy resin and welding, in accordance with safety standards. Additionally, they will perform tasks related to the design and fabrication of gypsum board walls, fascias, aluminum doors, aluminum windows, and screens, while working as assistants to woodworkers, carpenters, or masons, among others.

## PROGRAM COMPETENCIES

1. Apply the theoretical knowledge and technical skills necessary in the light construction job market efficiently and innovatively.
2. Propose effective solutions for light construction projects, basic welding, carpentry, masonry, woodworking, and gypsum board, among others, based on the analysis of needs, availability of materials, budgetary considerations, and contractual agreements with clients or employers.
3. Utilize computer and digital media effectively for decision-making and effective communication with clients, employers, and coworkers.
4. Demonstrate teamwork skills and the application of laws and regulations related to the field of light construction in an ethical and responsible manner.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

4 Credits in Core Courses

20 Credits in Major Courses

**24 Total Credits**

## CORE COURSES

SEGU 1044L	Occupational Safety and Laboratory	2
TECN 1003	Development and Management of the Technician	2
		<b>4</b>

## MAJOR COURSES

HAND 1049L	Basic Construction Drawing and Laboratory	2
HAND 1050L	Artistic Woodworking: Laboratory	2
HAND 1051L	Woodworking and Laboratory	4
HAND 1052L	Gypsum Board Design and Laboratory	4
HAND 1053L	Epoxy Resin, Polished Cement, and Residential Roof Waterproofing: Laboratory	2
HAND 1054L	Basic Welding and Laboratory	4
HAND 1055L	Aluminum Doors and Screen Fabrication: Laboratory	2
		<b>20</b>
<b>TOTAL CREDITS</b>		<b>24</b>

# Diploma in Computer Repairs and Network Technician

## DESCRIPTIONS

This program of study offers the student a theoretical and practical training that prepares him/her for employment in the area of computers and computer networks. This course emphasizes the teaching of the processes of planning, installation, configuration, maintenance, troubleshooting, and administration of individual and networked computers. In addition, the student is trained to perform diagnostics and general troubleshooting of electronic equipment. It also includes a preparatory course for the Comp TIA A+ exam for those students who would like to obtain Hardware and Operating Systems certifications.

## PROGRAM COMPETENCIES

1. Explain the fundamental concepts of your program of study.
2. Apply the theory of their areas of study.
3. Develop psychomotor skills for the performance of occupational procedures.
4. Transfer competencies to the occupational environment.
5. Adapt to present and future work scenarios, through strategies and activities that promote group work and interpersonal relationships.
6. Integrally develop values through the promotion of activities that improve their performance as a member of the community.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

12 Credits in Core Courses

12 Credits in Major Courses

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**24 Total Credits**

## CORE COURSES

ELED 1000	Fundamentals of Electricity	2
MATE 1221	Applied Mathematics	2
LITE 1001	Computer Literacy	2
OPCO 2096	Computer Operating Systems (Windows)	2
ADRE 1004	Network Management	2
TECN 1001	Development and Management of the Technician	2
		<b>12</b>

## MAJOR COURSES

RECO 1003	Computers Repairs I	2
RECO 1004	Computers Repairs II	2
SEGU 1001	Information Technology Security I	2
SEGU 1002	Information Technology Security II: Standard Operational Procedures	2
RECO 1005	Mobile Devices Troubleshooting and Repair	2
PRCE 1211	Preparation for Comp TIA A+ Certification (Hardware & OS)	2
		<b>12</b>

**TOTAL CREDITS 24**



## ***CONSTRUCTION TRADES COURSE DESCRIPTIONS***

**ACUS 1002 Acoustic Design (Loudspeakers and Acoustic Rooms)****2 Credits****Prerequisites: None**

This is course in acoustic designed to introduce students to noise, loudspeakers, microphones and acoustic rooms. The subjects studied will include; the science of acoustics, acoustical environments, different, loudspeaker design, techniques for reduction of noises, etc.

**ACUS 1003 Customization and Alarm Designs****2 Credits****Prerequisites: Concurrent with SONI 1016**

This course is designed to enable the student to learn the art of customization. The customization of multimedia, car and professional audio is included. It teaches design work using glass fiber, wood and other materials currently used.

**ADRE 1004 Network Operations****2 Credits****Prerequisites: HARD 1204**

In this, course students learn the basic concepts and techniques that prepare them for computer troubleshooting and network administration. It includes learning technical installation, configuration and testing of functionality of Microsoft Windows Server and Novell NetWare operating systems. Also by developing an application project, students will put into practice the knowledge acquired.

**AIRR 1001 Laws and Regulations of the Profession of Refrigeration Technicians****2 Credits****Prerequisites: None**

In this course, the student will assess the importance of the protocols and certifications that regulate the industry of installation of air conditioning and refrigeration equipment in Puerto Rico. Students will analyze the laws and regulations that govern the refrigeration technician profession. In addition, students will examine the codes of ethics, regulations and provisions of the Examining Board for the license exam of the College of Refrigeration and Air Conditioning Technicians of Puerto Rico.

**AIRR 1002 Refrigeration Principles and Cycle****2 Credits****Prerequisites: None**

In this course, the student will apply basic concepts of physics, such as temperature, force, pressure and evaporation, among others, to the study of maintenance and repair of refrigeration and air conditioning systems. Students will perform mathematical calculations using formulas and equations applicable to refrigeration. Likewise, they will describe the structural, mechanical and electrical components that are part of the refrigeration cycle.

**AIRR 1003 Environmental Protection Agency (EPA): Sections 608 and 609****2 Credits****Prerequisites: ELED1002, AIRR 1002**

In this course, the student will evaluate the general concepts related to ozone depletion, the U.S. Clean Air Act, the Montreal Protocol and procedures for recovery, recycling and reuse of refrigerants, as well as safety during these procedures. Also, analyze the types of refrigerants and oils used in equipment associated with Type I, Type II and Type III certifications. In addition, it will examine concepts related to EPA 609 certification and new refrigerants.

**AIRR 1004 Automotive Air Conditioning****2 Credits****Prerequisites: ELED1002, AIRR 1002**

In this course, the student will examine the theory and operation of the automotive air conditioning system. It will interpret the electrical and electronic system of the car, flow controls and their replacements, different types of compressors, condensers and evaporators. In addition, it will describe the installation, maintenance and repair procedures of automotive air conditioners.

**AIRR 1005 Preparatory Course for Board Exam****2 Credits****Prerequisites:** LAED1002, ELED1002, AIRR1002, LAIR1001, LAIR1002, LAIR1002, LAIR1003, AIRR1003, AIRR1004, LAIR1004.**Co-requisite:** LAIR 1005

In this course, the student will analyze the laws and regulations in effect to practice the occupation of Refrigeration and Air Conditioning Technician in preparation for the exam administered by the Puerto Rico Refrigeration and Air Conditioning Technician Examining Board. Students will complete reviews, exams and simulations of the topics contained in the Board exams. In addition, students will practice installations, maintenance processes, parts replacement, among others.

**ALRM 1004 Installations of Security Alarm Systems- Lab (Residential)****2 Credits****Prerequisites:** Concurrent with SONI 1015

This course is designed to develop practical skills in the installation, maintenance and repairs of alarm systems in residences. Hands-on practices will include installation and testing of basic protective circuits, control panels and keypads, input and output devices, residential central station monitoring systems, assembly of basic fire circuits and installation and testing of wireless alarm systems.

**ALRM 1005 Installation of Security Alarm Systems (Commercial and Auto Systems) Lab****2 Credits****Prerequisites:** Concurrent with SONI 1016

This course is designed to develop practical skills in the installation, maintenance and repairs of alarm systems in commercial and car settings. Hands-on practices will include installation and testing of advanced protective circuits, commercial control panels and keypads, commercial central station monitoring systems, assembly of advanced fire circuits, car alarm systems and installation and testing of wireless alarm systems in commercial buildings.

**AUDI 1002 Sound and Video Equipment (Residential, Commercial and Auto)****2 Credits****Prerequisites:** ELED 1000

This course is designed to introduce students to the field of audio and video engineering for residential and commercial uses. The subjects studied will include; history of audio recording, equipment history, physics of audio, psychoacoustics, equipment, analog recording, digital recording, synchronization, field audio recording, studio recording, dialog, music and sound effects.

**AUDI 1003 Maintenance and Repairs of Sound and Video Equipment- Lab****2 Credits****(Residential, Commercial and Auto)****Prerequisites:** Concurrent with AUDI 1002

This course covers the application, maintenance, troubleshooting and repair of sound, video and alarm products in residential, commercial and autos. Emphasis is placed on test equipment usage, development of troubleshooting skills, parts replacement (where to get and how to replace), original and generic replacement parts, semiconductors cross-reference manuals and electronic soldering.

**CCTV 1001 CCTV Surveillance Systems****2 Credits****Prerequisites:** None

This course offers students the basics of circuit protection and monitoring, commercial and residential level. Theory, operation and configuration of security cameras, monitors, DVRs, cables and network is addressed, among others.

**ELEC 2001 General Electronics****2 Credits****Prerequisites:** ELED 1000

This introductory course is designed to introduce students to more advanced courses in computer repair programs and alarm sound. Theories, parameters and devices needed to design, modify and build electronic circuits (semiconductors and software) will be studied. Relations systems Semiconductor Rectifiers, Filters and binary number systems, octal, hexadecimal and logic gates will be established. Teaching theories related to magnetic induction, Transformers,

sinusoidal signals, capacitance, AC rectification and digital logic circuits is included.

**ELED 1000 Fundamentals of Electricity**  
**2 Credits**

**Prerequisites: None**

This is an introductory course that is designed to introduce students to more advanced courses in electrical, refrigeration, computer repair, plumbing, sound and alarm programs. Students will study the theories, parameters, and devices necessary to design, modify, and construct electrical circuits. It will establish the relationships between energy, electrical load, voltage, current, resistance and power.

**ELED 1001 National Electric Code (NEC) and Regulations of the Electrical Professional**  
**2 Credits**

**Prerequisites: None**

In this course, students will analyze the historical framework of the electrical profession and the laws that regulate it. They will examine concepts, definitions, and articles 90, 100, and 110 of the NEC. They will assess the importance of applying the safety standards and regulations of the electrical authorities in Puerto Rico.

**ELED 1002 Principles and Formulas of Electricity**  
**2 Credits**

**Prerequisites: None**

In this course, students will apply basic mathematical operations such as addition, subtraction, multiplication, and division of whole numbers, decimals, and fractions. They will identify the fundamentals of electricity. Students will distinguish the theories, parameters, and devices necessary for designing, modifying, and constructing electrical circuits. They will also analyze the relationships between energy, electrical charge, voltage, current, resistance, magnetism, and power, as well as the rules and properties of electrical circuits.

**ELED 1004 Illumination: Laboratory**  
**2 Credits**

**Prerequisites: ELED 1002, LAED 1002, ELED 1010**

In this course, students will examine the design of lighting systems for indoor or outdoor spaces and common and public areas. They will apply

installation techniques for incandescent, led, high-pressure sodium, metal halide, magnetic induction, and mercury vapor lights, and internal components. In addition, students will implement safety standards in the installation, repair, and maintenance of these systems according to articles 410 and 411 of the National Electrical Code (NEC) and the Electrical Power Authority's Public Lighting Standards Manual.

**ELED 1005 Low Voltage Circuits: Laboratory**  
**2 Credits**

**Prerequisites: ELED 1002, LAED 1002, ELED 1003**

In this course, students will interpret blueprints, diagrams, and schematics following the procedure for installing electrical devices and testing electrical wiring and equipment with less than 50 volts of direct or alternating current. Students will review articles 720, 725, and 760 of the National Electrical Code, as well as the National Fire Alarm and Signaling Code (NFPA 72) for installing fire alarms. They will practice installing a residential alarm system and a fire alarm system.

**ELED 1006 Industrial Electrical Equipment**  
**2 Credits**

**Prerequisites: ELED 1002, LAED 1002, ELED 1010**

In this course, students will analyze electrical diagrams and blueprints at the industrial level. They will also explore different motors and control devices when installing electric motors. They will evaluate the installation scheme of magnetic controls and the ladder diagram for the basic programming of programmable logic circuits. In addition, they will relate the safety regulations and operation of electrical equipment for industrial applications according to article 430 of the National Electrical Code (NEC).

**ELED 1008 Renewable Energy Systems**  
**2 Credits**

**Prerequisites: ELED 1002, LAED 1002, ELED 1010**

In this course, students will examine the theoretical concepts, components, and regulations fundamental to implementing and maintaining renewable energy systems. They will apply basic skills to design and install photovoltaic and wind power systems. In addition, students

will show knowledge of the design, installation, maintenance, and repair of an interconnected (backup) and off-grid residential solar energy system.

### **ELED 1009L Preparatory Course for Board Exam and Laboratory**

**3 Credits**

**Prerequisites:** ELED 1001, ELED 1002, ELED 1010, ELED 1004, ELED 1006, ELED 1008, ELED 1110L, LAED 1002, LAED 1005, LAED 1007

In this course, students will review the laws, current regulations, requirements, and documents necessary to apply for the Assistant Electrician license. They will also review the topics of occupational safety, electrical instrumentation, lighting, and electrical systems, among others, contained in the exams of the Board of Examiners for Expert Electricians of Puerto Rico. Students will apply knowledge on installing, repairing, and maintaining electrical equipment and systems. They will also test their skills and abilities as electricians by simulating diverse residential, commercial, and industrial electrical circuits.

### **ELED 1010 Residential and Commercial Electrical Systems**

**2 Credits**

**Prerequisites:** None

**Corequisites:** ELED 1002, LAED 1002

In this course, students will examine symbols, drawings, diagrams, and schemes of electrical wiring, as well as schemes, diagrams, and analysis of direct current and alternating current circuits ranging from less than 50 V to 277 V. They will establish basic safety standards and regulations for the operation of electrical equipment and the design of residential and commercial electrical systems. Additionally, they will analyze the Supplementary Regulation to the National Electrical Code of the Electric Power Authority, the National Fire Alarm and Signaling Code (NFPA 72), the materials, and wiring methods according to chapters 2 and 3 of the National Electrical Code (NEC), and the low voltage circuits in articles 720, 725, and 760 of the same code.

### **ELED 1110L Electrical Branch Circuits and Laboratory**

**4 Credits**

**Prerequisites:** ELED 1002, LAED 1002, ELED 1010

In this course, students will interpret blueprints, diagrams, and schematics following the procedure for installing electrical devices and testing electrical wiring at residential and commercial levels. Students will also examine the National Electrical Code® (NEC) standards, the Supplementary Regulations, the laws governing the profession, and the installation of electrical and wired devices in Puerto Rico. In addition, they will resolve everyday situations in a logical and coordinated manner, following the safety rules that apply.

### **HAND 1049L Basic Construction Drawing and Laboratory**

**2 credits**

**Prerequisite:** None

In this course, students will apply knowledge of basic mathematics, including addition, subtraction, multiplication, and division of whole numbers and fractions, as well as area, perimeter, and hypotenuse. They will select architectural scales, measuring tapes, and tools for designing geometric figures and floor plans. They will examine the symbols used in construction drawings. They will employ conventional and complex line drawing, freehand drawing, as well as letters and titles used in blueprints, sketches, or schematics.

### **HAND 1050L Artistic Woodworking: Laboratory**

**2 credits**

**Prerequisite:** None

**Corequisite:** HAND 1051L

In this course, students will apply basic and advanced techniques of artistic woodworking, including cutting, assembling, and finishing rustic wood. They will employ techniques for sanding, polishing wood, and applying stains, paints, epoxy resin, and waxes. Finally, they will select the necessary materials to create unique pieces that will be showcased in a final exhibition.

**HAND 1051L Woodworking and Laboratory  
4 credits****Prerequisite: None****Corequisite: HAND 1050L**

In this course, students will examine techniques, safety guidelines, and basic elements of woodworking, as well as standards of quality, aesthetics, and adaptation to modern and innovative design needs. They will use the necessary tools for taking measurements, and specific processes for working with methods of joinery, finishes, and adaptation of modern hardware, as well as the specialized use of PVC. Additionally, they will apply woodworking techniques such as cutting, assembling, laminating, and painting in a project, considering the relevant regulations in an ethical and responsible manner.

**HAND 1052L Gypsum Board Design and Laboratory  
4 credits****Prerequisite: None****Corequisite: HAND 1053L**

In this course, students will examine the safety measures recommended by the Occupational Safety and Health Administration (OSHA) for the handling of hand and power tools and personal protective equipment. They will determine the cost of a project, including materials and labor costs, as well as the profit. Furthermore, they will create designs for projects and installations of walls, fascias, and acoustic ceilings made of gypsum board.

**HAND 1053L Epoxy Resin, Polished Cement, and Residential Roof  
Waterproofing: Laboratory****2 credits****Prerequisite: None****Corequisite: HAND 1052L**

In this course, students will apply specialized masonry techniques for cement polishing to achieve flawless and durable surfaces. They will handle the basic application of epoxy for durable and aesthetically pleasing finishes. Additionally, they will develop skills for waterproofing roofs, ensuring the durability and effective protection of residential structures against harsh weather conditions.

**HAND 1054L Basic Welding and Laboratory  
4 credits****Prerequisite: None****Corequisite: HAND 1055L**

In this course, students will apply techniques for various types of arc welding using stick (SMAW) and wire (MIG/GMAW), considering the relationship between amperage, metal gauge, weld size, and type. In addition, they will employ safety rules in the use of welding machines and tools, including those related to personal protective equipment (PPE). They will prepare various arc welding projects, considering the type of amperage and the required electrode and wire dimensions. Finally, they will create a schematic for a welding project, including the costs of materials and labor.

**HAND 1055L Aluminum Doors and Screen Fabrication: Laboratory  
2 credits****Prerequisite: None****Corequisite: HAND 1054L**

In this course, students will develop skills for designing and taking precise measurements for the fabrication of screens, aluminum doors, and windows. They will apply cutting and assembly techniques to create functional and aesthetically pleasing screens, windows, and doors. Additionally, they will select the necessary materials for ensuring the durability and aesthetics of the fabricated product. Furthermore, they will examine applicable laws that protect the customer, as well as the safety standards established by OSHA.

**INGL 1109 Basic English I  
2 Credits****Prerequisites: None**

In this course, students will demonstrate command of the basic rules of English grammar and their usage both orally (listening and speaking) and in writing (reading and writing). They will compose sentences by using the standard conventions of English language. In addition, students will reinforce their vocabulary knowledge for a better understanding of English in everyday situations..



**LAED 1002 Use and Identification of Measurement Devices and Instruments: Laboratory**

**2 Credits**

**Corequisites: ELED 1002, and ELED 1003 or ELED 1002 and ELED 1010**

In this course, students will apply the fundamentals of electricity by building safe electrical circuits. They will develop skills for properly using measuring instruments and testing parameters of all types of circuits. Students will verify the theories and properties of electrical circuits through measurements. They will construct electrical circuits according to National Electrical Code regulations.

**LAED 1005 Transformers and Electrical Substations: Laboratory**

**4 Credits**

**Prerequisites: ELED 1002, LAED 1002, ELED 1010**

In this course, students will analyze the construction, cooling methods, winding, and protective devices of a transformer. Students will also differentiate between the various types of transformers and their operation characteristics, as well as the voltages related to the various electrical sub-stations. They will apply their knowledge on the installation and combinations of oil distribution and pad-mounted transformers. They will also evaluate Article 450 of the National Electrical Code (NEC), as well as the Regulations of the Puerto Rico Power Authority.

**LAED 1007 Magnetic Controllers, PLC and Motors and Laboratory**

**4 Credits**

**Prerequisites: ELED 1002, LAED 1002, ELED 1010**

In this course, students will associate the combination and installation of circuits of different motors and control devices. They will apply the safety and operation standards of electrical equipment in industrial applications and the installation of different controls for electric motors. Students will combine magnetic controls, sensors, voltage regulators, and basic programming of Programmable Logic Circuits. They will analyze articles 430 and 440 of the National Electrical Code (NEC) based on safety rules for motors, controls, and circuits. They will also perform tests, connections and preventive maintenance of motors, magnetic and reversible

controls, variable frequency drive controls (VFD), PLC, sensors, and others.

**LAIR 1001 Mechanical Instrumentation: Laboratory**

**2 Credits**

**Prerequisites: ELED1002, AIRR 1002**

In this course, the student will examine the instruments for measuring electricity, pressures and temperature, as well as specialized tools and equipment for the installation and maintenance of refrigerators and air conditioners. They will analyze the general safety procedures and basic techniques to recover, reuse and recycle refrigerants. In addition, the student will apply the techniques for selection of diameters and types of piping, cutting, countersinking, copper welding and new technologies in the handling of piping for refrigeration and air conditioning systems.

**LAIR 1002 Domestic Refrigeration and Air Conditioning with Inverters: Laboratory**

**4 Credits**

**Prerequisites: ELED 1002**

In this course, the student will apply theoretical and practical knowledge about domestic refrigeration and residential air conditioning. Students will examine the procedures and techniques for installation, maintenance and repair of air conditioners. They will develop skills for the preparation of estimates and costs related to the billing of a residential repair project.

**LAIR 1003 Commercial Refrigeration and Air Conditioning: Laboratory**

**4 Credits**

**Prerequisites: ELED 1002, AIRR1002**

In this course, the student will examine the principles of commercial refrigeration and air conditioning systems. They will analyze the maintenance plans and procedures in different equipment, such as display refrigerators, bottle racks, temperature systems, kitchen cabinets, water towers, among others. Also, apply the procedures for the diagnosis of mechanical and electrical breakdowns in refrigeration and air conditioning equipment according to safety measures.



**LAIR 1004 Automotive Air Conditioning:  
Laboratory  
4 Credits**

**Prerequisites:** ELED1002, AIRR 1002

**Co-requisite:** AIRR 1004

In this course, the student will perform installations, maintenance and repairs of the automotive air conditioning system. They will apply the necessary safety measures in a car repair shop. They will use efficiency tests of the car electrical system, air valves, condensers, evaporators, and air flow ducts.

**LAIR 1005 Magnetic Controls, Sensors,  
Compressors and Motors**

**4 Credits**

**Prerequisites:** ELED1002

In this course, the student will associate the combination and installation of circuits of different types of motors and control devices for air conditioning. They will perform the installation of different controls for electric fan motors and handlers applying the safety and operation standards of electrical refrigeration equipment. Will practice the combination of magnetic contactors, motion and temperature sensors, voltage regulators and the basic programming of Programmable Logic Circuits according to article 430 of the National Electrical Code (NEC), executing diagnostic tests of failures in refrigeration equipment according to the manufacturer's handbooks.

**LATE 1202 Electrical Instrumentation- Lab  
2 Credits**

**Prerequisites:** Concurrent with ELED 1000

This course is designed to apply the discussed theories in course ELED 1041 by means of the construction of circuits of direct and alternate current. The suitable use of measuring instruments is emphasized and tests. It is verified by means of measurements, the theories and properties of electrical circuits of direct current. The relations will settle down between energy, the electrical charges, the voltage, current, resistance and power.

**LCCT 1002 Laboratory CCTV Surveillance  
Systems**

**2 Credits**

**Prerequisites:** Concurrent with CCTV 1001

The student will know the equipment protection circuits and monitoring commercial and

residential, install and control their use. Emphasis is placed on systems security cameras and network.

**LITE 1001 Computer Literacy**

**2 Credits**

**Prerequisites:** None

In this course, the student will analyze the utility of productivity tools, databases, and computerized systems in their learning process. Students will differentiate basic concepts of technology, the information processing cycle, its devices, and the function of computer programs. In addition, they will examine core aspects related to Internet services, security, privacy, ethics and technology assistance. Finally, it will demonstrate technological competencies in the use of digital tools for the creation of documents in word processors, presentations and electronic spreadsheets.

**MATE 1221 Applied Mathematics**

**2 Credits**

**Prerequisites:** None

In this course, the student will develop knowledge of basic mathematical operations, such as addition, subtraction, multiplication, and division of whole numbers, decimals, and fractions. They will analyze the basic concepts of algebra, geometry, and trigonometry. In addition, they will apply the formulas used in their field of study to solve problems.

**MECA 1001 Introduction to Auto Electricity  
2 Credits**

**Prerequisites:** Concurrent with ELED 1000

Theoretical and practical course on the basics, operation, construction and operation of the various electrical and electronic automotive components such as; starting system, charging electronics and conventional ignition, panel instruments, lights, fuses and intermittent. In addition, identification and basic troubleshooting electrical system of the car is included.

**OPCO 2096 Computer Operating Systems  
(Windows)**

**2 Credits**

**Prerequisites:** HARD 1204

In this course the basic concepts, structure and functions of a computer are discussed. The student will learn the basic commands, techniques and procedures for handling a

computer, through operating systems and application programs. Practical exercises will be performed in the lab with the purpose of exposing the students to the basic and intermediate use of Windows operating systems and application programs for computers. In addition, the course encourages students to develop skills in research, analysis and comparison, by conducting a project where multiple operating systems are compared.

### **PLOM 1016 Basic Plumbing Plans and Designs**

**2 Credits**

**Prerequisites: None**

In this course, students will demonstrate knowledge of the main fundamentals of the plumbing profession's history, the design of plumbing plans, the use and handling of instruments, and their applications in building construction planning. They will evaluate orthographic, isometric, and architectural plumbing drawings, as well as their respective strokes and scales. They will apply conventional and complex line traces, freehand drawing, letters, and titles used in plumbing installation drawings.

### **PLOM 1023 Use and Handling of Copper Welding Tools**

**2 Credits**

**Prerequisites: None**

In this course, students will evaluate the functions of plumbing equipment and tools of different energy sources. Additionally, they will analyze the adequate handling of equipment and tools related to the construction industry such as technological and power tools for the detection of faulty pipes. They will employ copper welding procedures. Furthermore, they will examine the regulations of the Occupational Safety and Health Administration (OSHA), Puerto Rico Occupational Safety and Health Administration (PROSHA) and other federal and state laws and regulatory agencies.

### **PLOM 1024 Introduction to the Plumbing Technician Occupation**

**2 Credits**

**Prerequisites: None**

In this course, students will analyze the principles, models, and mathematical concepts fundamental to the plumbing profession, as well as the laws and regulations governing the

profession. They will examine employment opportunities, the importance of reading and interpreting drawings and sketches, along with the drawing instruments, tools, materials, and equipment necessary to perform tasks related to the profession. They will recognize eco-friendly plumbing and plumbing systems that reduce the use of drinking water and the amount of wastewater in treatment plants.

### **PLOM 1025 Intermediate Plumbing Plans and Designs**

**2 Credits**

**Prerequisites: PLOM 1016**

In this course, the student will integrate knowledge about the design of plumbing plans for one-story buildings. They will draw orthographic and isometric plans for one-story buildings, with the required elevations. Examine offer analysis and contracting procedure for cost control during the execution of the project. Prepare reliable and accurate budgets, commercial offers and cost estimates.

### **PLOM 1026 Sanitary and Potable Water Systems (Residential and Commercial)**

**4 Credits**

**Prerequisites: PLOM 1023**

In this course, the student will examine the laws and regulations that govern the plumbing profession. In addition, they will use the mathematical processes for the calculation of the different formulas applied in the profession. Likewise, the student will apply the techniques of installation, preventive maintenance and repair of sanitary appliances taking into consideration the protocols and safety measures. They will also identify equipment and accessories designed for the reduction of water consumption that use technologies with an eco-friendly and high efficiency approach. The student of the program may choose to apply for the Plumbing Technician Apprentice certification. This is a requirement to work under the direct supervision of a certified master plumber, who will help them in their profession, complying with the regulatory laws of the plumbing profession in Puerto Rico.

### **PLOM 1027 Design of Tank Systems, Water Pumps, Handling of Liquids and other Fluids**

**2 Credits**

**Prerequisites: PLOM 1023**

In this course, the student will distinguish potable water cisterns for residential and commercial locations. Likewise, the student will perform the installation of a potable water cistern. In addition, they will differentiate between submersible and non-submersible potable water pumps. They will also analyze rainwater collection and storage systems.

**PLOM 1028 Advanced Plumbing Plans and Designs**

**4 Credits**

**Prerequisites: PLOM 1025**

In this course, the student will analyze plumbing plans for buildings of two stories or more. They will draw orthographic and isometric plans for multi-story buildings with the required perspectives and elevations. Prepare an analysis on the contracted work or services and offers for cost control. Prepare reliable and accurate budgets, commercial offers and cost estimates.

**PLOM 1029 International Plumbing Code (IPC) and Regulations**

**2 Credits**

**Prerequisites: None**

In this course, students will analyze the structure of the International Plumbing Code (IPC). They will also examine principles related to the use of new materials and plumbing designs. Additionally, they will perform installations of drainage systems, conductors, connections, vents, and hydraulic traps.

**PLOM 1030 Septic, Aqueduct and Sewer Systems**

**2 Credits**

**Prerequisites: PLOM 1023**

In this course, the student will analyze the requirements for the establishment of septic tanks and the wastewater treatment process. Differentiate the functions and components of wastewater storage and absorption systems. They will also make a simulated installation on wastewater outlets from aqueduct and sewage companies.

**PLOM 1031 Gas Piping, Fire Fighting, and Agricultural Irrigation Systems**

**2 Credits**

**Prerequisite: PLOM 1023**

In this course, students will analyze the laws, standards, and regulations for the installation of

gas pipes, firefighting systems, and agricultural irrigation systems. They will also classify gas pipes and types of fire alarms according to their operational category. Likewise, they will examine the characteristics of irrigation systems, their methods, and the designs used in house or urban gardens, orchards, and agricultural farms for planning a residential irrigation system.

**PLOM 1035 Preparatory Course for the Theoretical Board Exam**

**1 Credit**

**Prerequisites: PLOM 1016, PLOM 1023, PLOM 1024, PLOM 1025, PLOM 1026, PLOM 1027, PLOM 1028, PLOM 1029, PLOM 1030, PLOM 1031**

In this course, students will review the current laws, regulations, and standards in Puerto Rico and the International Plumbing Code (IPC), as well as the requirements for obtaining a journeyman plumber license. They will review topics on occupational safety, mathematics applied to the profession, sanitary and potable water systems, cistern systems, water pumps, and the handling of liquids and other fluids, among other relevant elements of the profession. Finally, they will demonstrate knowledge of theoretical content for the certification exam of the Board of Master and Journeyman Plumbers of Puerto Rico.

**PLOM 1036L Preparatory Course for the Board Exam: Drawing and Laboratory**

**1 Credit**

**Prerequisites: PLOM 1016, PLOM 1023, PLOM 1024, PLOM 1025, PLOM 1026, PLOM 1027, PLOM 1028, PLOM 1029, PLOM 1030, PLOM 1031**

In this course, the student will apply the drawing process of a plumbing system in one, two and three story structures. The student will make one, two, and three story plumbing plans required in the drawing exams of the Board of Examiners of Master and Journeyman Plumbers of Puerto Rico. They will prepare a list of materials according to the one, two and three-story plumbing plans. In addition, they will prepare a quotation of the parts for each of the plumbing plans.

**PLOM 1037L Preparatory Course for the Practical Board Exam: Laboratory**  
**1 Credit**

**Prerequisites:** PLOM 1016, PLOM 1023, PLOM 1024, PLOM 1025, PLOM 1026, PLOM 1027, PLOM 1028, PLOM 1029, PLOM 1030, PLOM 1031

In this course, students will employ occupational safety techniques in plumbing installations. They will practice the installation of potable and sanitary water systems for a one-story and two-story building. Students will also perform plumbing installations in preparation for the practical exam of the Board of Examiners of Master and Journeyman Plumbers of Puerto Rico.

**PRCE 1211 Preparation for Comp TIA A+ Certification (Hardware & OS)**

**2 Credits**

**Prerequisites:** Concurrent with RECO 1005/, SEGU 1002

This is a preparatory course for the CompTIA A+ Certification. The CompTIA A+ Certification is the industry-recognized credential that certifies the competence of Computer Service Specialists. The Computer Technology Industry Association (CompTIA) sponsors the Certification and the exams are administered by Sylvan-Prometric. Over 50 of the largest software and hardware manufacturers, vendors, distributors, resellers and publishers, support the program.

**RECO 1003 Computers Repairs I**

**2 Credits**

**Prerequisites:** Concurrent with OPCO 2096

A course in hands-on training to understand and troubleshoot computers efficiently. Students will start by reviewing the basic components that make up a computer. Then, will begin by building fully functioning PC workstations from scratch. They are introduced to the basics of DOS and the CMOS setup program, as well as the diagnostic tools that we use to check out the hardware.

**RECO 1004 Computers Repairs II**

**2 Credits**

**Prerequisites:** RECO 1003

This course covers the application, maintenance, trouble shooting and repair of personal computers peripherals. These include monitors, printers, scanners, laptops and portable devices, network hubs and switches, routers, wireless devices, etc. Emphasis is placed on test

equipment usage and development of troubleshooting skills.

**RECO 1005 Mobile Devices Troubleshooting and Repair**

**2 Credits**

**Prerequisites:** RECO 1004

In this course the basic concepts, structure and functions of the different mobile devices are discussed. The student will become familiar with the concepts, techniques and procedures for handling mobile devices, through operating systems and application programs. Practical exercises are conducted in the laboratory with the purpose of exposing students to basic and intermediate use of operating systems and mobile application programs. In addition, the course encourages students to develop research, analysis and comparison skills by conducting a project comparing various operating systems.

**SEGU 1001 Information Technology Security I**

**2 Credits**

**Prerequisites:** ADRE 1004/LITE 1001

This course introduces basic security principles, such as establishing an effective security policy and the different types of hacker activities that a computer user is most likely to encounter. It also will instruct the student in the latest security industry recommendations and how to properly protect Windows and Windows servers in a variety of settings and how to perform security audits.

**SEGU 1002 Information Technology Security II: Standard Operational Procedures**

**2 Credits**

**Prerequisites:** SEGU 1001

This course includes intensive study of the most commonly used techniques for protecting computer systems from intruders. Defense techniques and factors to consider when trying to prevent attacks from the outside are explained in detail. It includes discussion of firewall and IDN systems, firewall configuration, VPNs, Trojan horses, and RFC security.

**SEGU 1043 Occupational Safety****2 Credits****Prerequisites: None**

In this course, the student will examine the fundamental concepts related to occupational safety. In addition, students will analyze the regulations of the Department of Labor and Human Resources, the Occupational Safety and Health Administration at federal level (OSHA) and at state level (PROSHA) applicable to the construction industry. It will also evaluate preventive and remedial measures in case of physical accidents caused by electric shock, inhalation of toxic gases, explosives and machinery accidents, among others.

**SEGU 1044 Occupational Safety****2 Credits****Prerequisites: None**

In this course, students will examine the fundamental concepts of safety and health in the construction industry. They will also analyze preventive and remedial measures to respond effectively to possible accidents caused by electric shock, inhalation of toxic gases, fires, and the use of machinery and work equipment. Students will select the appropriate personal protective equipment for their work area. In addition, they will evaluate the regulations of the Department of Labor, Occupational Safety and Health Administration (OSHA), and PROSHO that apply to the construction industry.

**SEGU 1044L Occupational Safety and Laboratory****2 Credits****Prerequisites: None**

In this course, students will examine the fundamental concepts of safety and health in the construction industry. They will also analyze preventive and remedial measures to respond effectively to possible accidents caused by electric shock, inhalation of toxic gases, fires, and the use of machinery and work equipment. Students will select the appropriate personal protective equipment for their work area. In addition, they will evaluate the regulations of the Department of Labor, Occupational Safety and Health Administration (OSHA), and PROSHO that apply to the construction industry.

**SONI 1014 Principles of Sound and Acoustic****2 Credits****Prerequisites: None**

This is an introductory course in the physics of sound and acoustics. Topics include the nature of sound waves, simple harmonic motion, logarithms and antilogarithms, sound intensity and sound pressure, the decibel, complex waves, resonance and filtering, distortion, and sound transmission. The course introduces the use of instruments such as oscilloscopes, function generators, frequency counters, computerized filters and digital signal analyzers, speakers, equalizers, crossover networks, amplifiers, etc., basic sound system and functions of these.

**SONI 1015 Security Alarm Systems (Residential)****2 Credits****Prerequisites: ELED 1000**

This course is designed to introduce students to the field alarm systems for residential uses. The subjects studied will include history of alarms, basic protective circuits, residential control panels and keypads, input and output devices, interior and exterior space protection devices, commercial central station monitoring systems, underwriters laboratories, basic fire circuits, wireless alarm systems, basic CCTV theory and basic building construction and installation code.

**SONI 1016 Security Alarm Systems (Commercial and Auto)****2 Credits****Prerequisites: SONI 1015**

This course is designed to introduce students to the field alarm systems for commercial and automotive uses. The subjects studied will include: advanced protective circuits, commercial control panels and keypads, interior and exterior space protection devices, commercial central station monitoring systems, advanced basic fire circuits, wireless alarm systems, CCTV circuits, car alarm systems and commercial building construction and installation codes.

**TECN 1001 Development and Management of the Technician****2 Credits****Prerequisites: None**

In this course, the student will evaluate the alternatives and aspects related to the

development of a company dedicated to customer service or to the purchase and sale of products according to their occupational area. They will also determine the viability of a business based on a market study. In addition, they will create a business plan in compliance with the codes of ethics of the profession.

### **TECN 1003 Development and Management of the Technician**

#### **2 Credits**

#### **Prerequisites: None**

In this course, students will analyze concepts, documents, and regulations related to the development and management of small businesses for electrical, refrigeration, computer and network repair, and construction technicians. Students will identify dress codes and guidelines for personal hygiene and physical appearance. They will apply skills for preparing, presenting, and conducting themselves during a job interview. Additionally, they will develop skills for preparing estimates and quotes for installation, repair and maintenance projects and services using various formats, spreadsheets, word processors, and presentations.

***ADMINISTRATION AND INFORMATICS  
ACADEMIC PROGRAMS***



## Diploma in Network Administration

### DESCRIPTION

This is a training program that provides the knowledge and skills necessary for its graduates to provide support services and administer wired or wireless computer network systems. Emphasis is placed on the management of servers and their infrastructure through the development of skills to install, maintain, administer and repair networks on the Microsoft platform. Also, discussion of other "Open Sources" operating system platforms is included. Students may choose to take CompTIA or Microsoft sponsored certifications in computer systems administration (MCSA, MCDST or MCP).

### PROGRAM COMPETENCIES

1. Explain the fundamental concepts of your program of study.
2. Apply the theory of their areas of study.
3. Develop psychomotor skills for the performance of occupational procedures.
4. Transfer competencies to the occupational environment.
5. Adapt to present and future work scenarios, through strategies and activities that promote group work and interpersonal relationships.
6. Integrally develop values through the promotion of activities that improve their performance as a member of the community.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

4 Credits in General Education Courses

4 Credits in Core Courses

28 Credits in Major Courses

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**36 Total Credits**

### GENERAL EDUCATION COURSES

DETE 1003	Keyboard Skills	2
INGL 1109	Basic English I	2
		<b>4</b>

### CORE COURSES

LITE 1001	Computer Literacy	2
MATE 1221	Applied Mathematics	2
		<b>4</b>

### MAJOR COURSES

ADRE 1097	Computer Telecommunications	2
HARD 1204	PC Hardware and Assembly	2
ADRE 1004	Network Operations	2
OPCO 2096	Computer Operating Systems (Windows)	2
INTE 1215	Internet Fundamentals and Managements	2
REDE 1215	Installation, Configuration, Administration and Support of Operating Systems (Windows)	2
OPCO 2097	Operating Systems Open Sources	2
ADRE 1005	Network Operations I-Environment	2
ADRE 1006	Network Operations II-Infrastructure	2
REDE 1216	Server Applications	2
SERV 2011	Computer Users Support and Technical Writing	2
SERE 3001	Network Security	2
VIRT 1001	Virtualization	2
RENE 1001	Preparatory Course for Certifications in Computer Systems Administration	2
		<b>28</b>
<b>TOTAL CREDITS</b>		<b>36</b>

## Diploma in Business Administration Specialist

### OBJECTIVE

The Certificate in Business Administration Specialist will prepare students with fundamental knowledge of business administration. Students will develop skills in professional communication, problem-solving, and decision-making. Additionally, they will integrate ethical practices into their professional practice.

### PROGRAM COMPETENCIES

1. Apply business knowledge and skills in developing solutions that contribute to the success of their organization.
2. Express their ideas clearly and assertively, both orally and in writing, in professional contexts.
3. Analyze situations logically and critically for business decision-making and problem-solving.
4. Develop basic knowledge of business information systems.
5. Demonstrate ethical and moral behavior in business decision-making.
6. Promote inclusion and diversity in all their interactions within business environments.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via online delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

6 Credits in General Education Courses

22 Credits in Major Courses

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### 28 Total Credits

### GENERAL EDUCATION COURSES

ENGL 1010	Basic English I	3
ITTE 1031L	Computer Literacy and Laboratory	3
		<b>6</b>

### MAJOR COURSES

BUMA 1000	Introduction to Business	3
MKTG 1010	Marketing Principles	3
BUAD 1020	Business Information Systems	3
BUAD 2000	Fundamentals of Management	3
BUAD 3000	Human Resources Administration	3
ACCO 1000	Introduction to Accounting I	4
BUAD 3050	Ethics in Business	3
		<b>22</b>

### TOTAL CREDITS 28

### NOTES:

- All major courses must be approved with at minimum grade of "C".

## Diploma in Administrative Assistant with Medical Billing

### DESCRIPTION

This study program offers the student the knowledge, skills, and abilities required in the medical secretary field. It focuses on the medical procedures, document administration, handling of equipment, filing, and invoicing of medical plans by electronic programs. The course incorporates computer application programs (Word and Excel) for processing information and document production. The graduates from this program will be able to fill positions such as Secretary, Clerk, Medical Billing, or other similar positions in private medical offices, hospitals, laboratories, etc.

### PROGRAM COMPETENCIES

1. Explain the fundamental concepts of your program of study.
2. Apply the theory of their areas of study.
3. Develop psychomotor skills for the performance of occupational procedures.
4. Transfer competencies to the occupational environment.
5. Adapt to present and future work scenarios, through strategies and activities that promote group work and interpersonal relationships.
6. Integrally develop values through the promotion of activities that improve their performance as a member of the community.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

8 Credits in General Education Courses

6 Credits in Core Courses

22 Credits in Major Courses

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**36 Total Credits**

### GENERAL EDUCATION COURSES

ESPA 1007	Basic Spanish	2
INGL 1109	Basic English I	2
INGL 1110	Basic English II	2
INGL 2104	Conversational English	2

**8**

### CORE COURSES

MADO 1003	Keyboard Skills	2
CONT 1095	Elementary Accounting I	2
EXCL 1001	Electronic Spreadsheet (Excel)	2

**6**

### MAJOR COURSES

PROA 1001	Office Administration Procedures	2
ADDO 1002	Document Administration	2
FUNS 1003	Clinical Principles	2
PRCO 1002	Production of Medical Documents and Electronic Record	2
CODI 3003	Coding of Services and Procedures	2
REME 1002	Production of Medical Documents and Electronic Record	2
CODI 3004	Coding of Services and Procedures	2
FACT 3012	Medical Plans Billing (Manual)	2
FACT 3013	Electronic Medical Plan Billing I	2
FACT 3014	Electronic Medical Plans Billing II	2
OFIC 3008	Externship*	2

**22**

### TOTAL CREDITS

**36**

### NOTES:

- \*Externships will be performed in establishments outside the Institution, according to availability. Specific practice centers, days and schedules are not guaranteed.

# Diploma in Banking Operations

## DESCRIPTION

This study program offers the student the knowledge of the procedures, norms, products, services, and regulations of the commercial bank, mortgage bank and other financial institutions. It also includes technological advances in the transactions areas and forms of payment, through the handling of computerized terminals for banking tellers. The graduates from this program will be able to fill positions, such as: Teller Banking, Customer Service, or other similar positions in financial institutions.

## PROGRAM COMPETENCIES

1. Explain the fundamental concepts of your program of study.
2. Apply the theory of their areas of study.
3. Develop psychomotor skills for the performance of occupational procedures.
4. Transfer competencies to the occupational environment.
5. Adapt to present and future work scenarios, through strategies and activities that promote group work and interpersonal relationships.
6. Integrally develop values through the promotion of activities that improve their performance as a member of the community.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

10 Credits in General Education Courses

14 Credits in Core Courses

12 Credits in Major Courses

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**36 Total Credits**

## GENERAL EDUCATION COURSES

ESPA 1007	Basic Spanish	2
INGL 1109	Basic English I	2
INGL 1110	Basic English II	2
INGL 2104	Conversational English	2
MATE 1222	Basic Mathematics	2
		<b>10</b>

## CORE COURSES

COMP 2014	Computer Application Programas (Power Point, Outlook, Internet)	2
MADO 1003	Keyboard Skills	2
CONT 1095	Elementary Accounting I	2
EXCL 1001	Electronic Spreadsheet (Excel)	2
SERV 3001	Customer Services	2
CONT 1096	Elementary Accounting II	2
MATE 1223	Business Mathematics	2
		<b>14</b>

## MAJOR COURSES

OPBA 3002	Banking Operations I	2
OPBA 3003	Banking Operations II	2
REPA 1023	Teller I (Manual)	2
REPA 1024	Teller II (Computerized)	2
REPA 1025	Teller III (Computerized)	2
BANC 1012	Sales and Finances	2
		<b>12</b>
<b>TOTAL CREDITS</b>		<b>36</b>

## Diploma in Tourism and Hotels

*This program is currently in a teach-out process and is not accepting new students. Reentry may be possible only if a student can complete the program within the teach-out period, subject to approval by the Vice President of Academic Affairs. Contact Academic Affairs department for information on the teach-out date for your program at your location.*

### DESCRIPTION

The Tourism and Hotels Program will train students in the technical, operational, regulatory, promotional, and service processes aimed at clients in the tourism industry. It will prepare students with knowledge and skills related to the structure, organization, basic principles of management, and operations of the various sectors of the hospitality industry. Furthermore, students will acquire knowledge of local and international tourism geography and the global tourism and hospitality industry, with a focus on sustainable tourism. They will develop skills related to reservation processes, travel package offers, tourist routes, and promotions of tourist attractions for vacations in and outside of Puerto Rico. Graduates of this program will be able to work as travel agents, tour guides, tourism consultants, customer service representatives, event coordinators, and hotel operations staff, among other roles.

### PROGRAM COMPETENCIES

1. Apply theoretical and practical knowledge related to customer service, hotel operations, and the tourism industry both locally and internationally.
2. Analyze information, procedures, and business operations in the tourism and hospitality sector logically and critically.
3. Communicate assertively and efficiently, both orally and in writing, the services available to customers in the tourism and hospitality industry both locally and internationally.
4. Utilize available technological and computer resources for the planning, organization, management, and development of tourism and accommodation operations.
5. Demonstrate collaborative work skills, respect for diversity, and ethical and professional behavior in compliance with the laws related to services in the tourism and hospitality industry.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

8 Credits in General Education Courses  
4 Credits in Core Courses  
24 Credits in Major Courses

### 36 Total Credits

### GENERAL EDUCATION COURSES

ESPA 1007	Basic Spanish	2
INGL 1109	Basic English I	2
INGL 1110	Basic English II	2
INGL 2104L	Conversational English and Laboratory	2
		<b>8</b>

### CORE COURSES

COMP 2014L	Computer Application Programs (Power Point, Outlook, Internet) and Laboratory	2
CONT 1095	Elementary Accounting I	2
		<b>4</b>

### MAJOR COURSES

SERV 1005	Customer Service	2
TURI 1004	Introduction to Tourism and Hotels	2
ADMI 1001	Business Administration	2
GEOG 1007L	Puerto Rico Tourism Geography and Laboratory	2
GEOG 1008L	Universal Tourism Geography and Laboratory	2
HOTE 1001	Hotel Operations and Accommodations	2
HOTE 1002	Hotel Management and Supervision	2
CONV 1001L	Conventions and Banquets and Laboratory	2
MERC 1001L	Tourism Marketing and Laboratory	2
LINE 1005	Air Lines	2
GUIA 1103L	Cultural Tourism Guide and Laboratory	2
RESE 1006L	Computerized Reservations and Laboratory	2

**24**  
**36**  
**TOTAL CREDITS**

## ***ADMINISTRATION AND INFORMATICS COURSE DESCRIPTIONS***

**ADDO 1002 Document Administration**  
**2 Credits**

**Prerequisites: None**

This course offers the student activities aimed to learn the organization and procedures for filing documents, according to alphabetic and numerical systems. It includes the teaching of methods and modern techniques in management, database and document control. In addition, knowledge of the laws governing document management and organizing documents in computerized systems.

**ADMI 1001 Business Administration**  
**2 Credits**

**Prerequisites: None**

In this course, students will analyze business opportunities and the necessary process for creating a tourism business at the state level in the tourism and hospitality industry. They will examine factors related to the planning, organization, management, and development of a tourism business. Additionally, students will identify the process for applying for permits, licenses, and the required documentation for operating in Puerto Rico.

**ADRE 1004 Network Operations**  
**2 Credits**

**Prerequisites: HARD 1204**

In this, course students learn the basic concepts and techniques that prepare them for computer troubleshooting and network administration. It includes learning technical installation, configuration and testing of functionality of Microsoft Windows Server and Novell NetWare operating systems. Also by developing an application project, students will put into practice the knowledge acquired.

**ADRE 1005 Network Operations I - Environment**  
**2 Credits**

**Prerequisites: ADRE 1004**

This course explores the hardware, software, personnel and procedures needed to manage and maintain computer networks. It provides students the opportunity to plan and implement networks and administrate servers. Issues related to CompTIA Network+ Microsoft certifications and network performance and monitoring will be include.

**ADRE 1006 Network Operations II - Infrastructure**  
**2 Credits**

**Prerequisites: ADRE 1005**

Skill development in the implementing, managing and maintaining the infrastructure and services of a Microsoft Windows Server. Topics include cabling, cable closets, management devices, selection and installation of network devices, protocols, and sub netting. Subject matter related to CompTIA Network+ Microsoft certifications.

**ADRE 1097 Computer Telecommunications**  
**2 Credits**

**Prerequisites: None**

This course is about the role of telecommunications and computer networks in information management systems. It includes technical fundamentals, design of telecommunications, computer networks and strategies, tools and techniques for network planning, implementation, management, maintenance, and security. Subject matter related to CompTIA Network+ Microsoft certifications.

**BANC 1012 Sales and Finances**  
**2 Credits**

**Prerequisites: None**

This course is designed to contribute to the knowledge and mastery of new sales techniques of both products and services in the banking industry, consumer behavior and sales management. Also studies financial aspects such as: money markets, capital investments, financial management, value for money, business cycle, efficient diversification, shifting resources, among others.

**CODI 3003 Codification of Diagnostics and Injuries**  
**2 Credits**

**Prerequisites: FUNS 1003**

This course provides students the knowledge and basic skills required for the coding of diagnostics and injuries in patients. Practical exercises will be included in order to search for coding of diseases, conditions, and injuries, using the ICD-10-CM manual as a resource for medical diagnoses.



**CODI 3004 Coding of Services and Procedures****2 Credits****Prerequisites: CODI 3003**

This course provides students the knowledge and basic skills required for the coding of medical services and procedures. Practical exercises will be included in order to search for coding of services, procedures, and treatments, using the CPT code manual as a resource for services and procedures.

**COMP 2014L Computer Application Programs (PowerPoint, Outlook, Internet) and Laboratory****2 Credits****Prerequisites: None**

In this course, students will analyze the usefulness of productivity tools and computerized systems. They will evaluate concepts related to technology, the information processing cycle, its devices, and the function of computer programs. Additionally, they will examine internet services, security, privacy, ethics, and technological assistance. Students will also apply technological skills in using digital tools for creating documents in word processors, presentations, and electronic spreadsheets.

**PrerequisiteCONT 1095 Elementary Accounting I****2 Credits****Prerequisites: None**

In this course, students will discuss the basic concepts of the accounting cycle. They will demonstrate knowledge of accounting for small businesses. Students will perform procedures related to T-accounts, transaction analysis, and payroll, among other business operations aimed at service.

**CONT 1096 Elementary Accounting II****2 Credits****Prerequisites: CONT 1095**

This course will broaden new topics within the accounting field aiming to facilitate the student's encountering with more areas that are difficult. Topics such as financial statement, the complete accounting cycle for a service business, payroll system, uncollectible accounts, ledger closing, note's interests accounting, and banking reconciliation will be discussed.

**COMP 2014 Computer Application Programs (PowerPoint, Outlook, Internet)****2 Credits****Prerequisites: None**

This course offers the student an introductory level training in the use of the following programs: Internet-performs searches send correspondence and to be able to take advantage of all it can offer. Outlook-manage information such as e-mails, appointments, contacts, tasks, files and calendar management. PowerPoint-design presentations with slides to be used in public presentations or any oral or written presentation.

**CONV 1001L Conventions and Banquets and Laboratory****2 Credits****Prerequisites: None**

In this course, students develop the skills necessary for planning activities related to private, public and social conventions, meetings, and banquets. They will identify the various types of events and conventions. They will examine the organizational structure of a company's sales and events department, the professional profiles of the resources, types of organizational clients, and sales strategies. Additionally, they will recognize terms related to etiquette, protocols, table ceremonies, and their setup.

**Prerequisite****DETE 1003 Keyboard Skills****2 Credits****Prerequisites: None**

This course provides learning activities designed to learn, and dominate the alphanumeric keyboard and numeric keyboard of ten digits in a computer system. Introduce to the students basic components (hardware) of computers and the principles of word processing. Develop basic skills that enable students to enter, recover, edit and print information in a computerize system; and speed to a minimum of 16 words per minute with a maximum of 6 mistakes, in a 2 minute test.

**ESPA 1007 Basic Spanish****2 Credits****Prerequisites: None**

In this course, the student will produce oral and written presentations using the grammatical rules that govern the Spanish language. In addition, students will analyze texts with varying degrees

of complexity. Students will write with varied vocabulary, correct syntax, and proper spelling.

**EXCL 1001 Electronic Spreadsheet (Excel)**  
**2 Credits**

**Prerequisites: None**

In this course the student, get acquainted with the theory and practice of the worksheet in the Microsoft Excel program. It includes the development of worksheets through different applications while working with graphs and database systems. The theoretical concepts will be applied in laboratory exercises. Students will search for documents to be modified, using the knowledge acquired in the course. Prepare a portfolio of daily class where the work done in class and those obtained by the external search will be organized. This course will also prepare students to take the Microsoft Office Specialist (MOS) exam for Microsoft Excel. This course will cover all the topics specified by the MOS Program – Score Level.

**FACT 3012 Medical Plans Billing (Manual)**  
**2 Credits**

**Prerequisites: CODI 3003**

During this course, the students will acquire the knowledge needed to delve into the medical and dental billing market. They will learn the terminology used for billing; manage the documentation used in the billing process, as well as laws and regulations relevant to health institutions and how to apply correctly the coding required for billing.

**FACT 3013 Electronic Medical Plans Billing I**  
**2 Credits**

**Prerequisites: FACT 3012**

In this course, the student will learn how to properly manage and use the billing program and clearing house, Secure Claim. It includes learning and mastering system functions such as: Front Desk, Claim Center, Back Office, Analytics, and Support. With this electronic program, the student will be able to create and maintain patient information, bill preparation, electronic issuance and reconciliation of payments. The student will gain the knowledge and skills necessary to meet and address the main demands of the labor market in relation to the electronic processing of professional, dental and institutional medical billing for the recovery for

medical services rendered.

**FACT 3014 Electronic Medical Plans Billing II**  
**2 Credits**

**Prerequisites: FACT 3013**

In this course, students will acquire the necessary knowledge to delve into the dental billing market, as well as learning to adequately operate the electronic dental billing program "Secure Claim." In addition, students will understand auditing processes. This includes learning and mastering system functions such as patient registration and records, dental billing processes, and printing of documents. Students will learn the dental anatomy needed for effective billing, and will identify and manage necessary documentation to carry out audits. This will place students in a more competitive level on today's job market.

**FUNS 1003 Clinical Principles**  
**2 Credits**

**Prerequisites: None**

This course provides students with the knowledge and skills related to the most common medical terminology in medical plans billing. Class discussions include medical abbreviations used in medical diagnoses and procedures. In addition, students will learn human anatomy and physiology. Included is the study of chronic diseases that affect the human body and the specialist who treats each of them.

**GEOG 1007L Puerto Rico Tourism Geography and Laboratory**  
**2 Credits**

**Prerequisites: None**

In this course, students will examine the geography of Puerto Rico from a tourism perspective and the contributions of cultural groups within Puerto Rican society. They will evaluate tourist attractions, the associated history, tourist routes, and various places of major interest throughout Puerto Rico. They will also apply collaborative work skills to generate ideas aimed at developing sustainable tourism in Puerto Rico.

**GEOG 1008L Universal Tourism Geography and Laboratory**  
**2 Credits**

**Prerequisites: None**

In this course, students will discuss the

geography of various places around the world from a tourism perspective and the influence of government structures on tourist movement. They will review culinary offerings, accessibility, mobility, sustainability, and safety for all, focusing on the geography of each continent. Likewise, they will examine the elements considered in the international tourism circuit, major companies, and marketing and sales methods.

**GUIA 1103L Cultural Tourism Guide and Laboratory**

**2 Credits**

**Prerequisites: GEOG 1007L**

In this course, students will identify the professional role of a tour guide. They will explain the importance of culture and its manifestations. Students will examine regulations or best practice guidelines for tourism planning. In addition, they will prepare an excursion guide with itineraries, tourist routes, and their essential elements.

**HARD 1204 PC Hardware and Assembly**

**2 Credits**

**Prerequisites: None**

This course provides to the students with the knowledge, skills and techniques necessary for the identification, installation and configuration of computer components, external peripherals and communication devices. It is included, the assembly process of a computer including internal and external peripherals.

**HOTE 1001 Hotel Operations and Accommodations**

**2 Credits**

**Prerequisites: None**

In this course, students will examine the basic principles of hotel operations and other accommodation businesses. They will classify the types of hotels and accommodations according to their organizational structure, positions, tasks, and departments. They will discuss the roles and procedures for guest reception, accommodation, services, and billing in lodging establishments.

**HOTE 1002 Hotel Management and Supervision**

**2 Credits**

**Prerequisites: HOTE 1001**

In this course, students will develop skills for planning, organizing, directing, and controlling

businesses in the hotel and accommodation sector. They will discuss the components of labor laws and their importance in hotel and accommodation management. In addition, they will apply techniques related to business management and progressive disciplinary procedures for employees under their supervision.

**INGL 1109 Basic English I**

**2 Credits**

**Prerequisites: None**

In this course, students will demonstrate command of the basic rules of English grammar and their usage both orally (listening and speaking) and in writing (reading and writing). They will compose sentences by using the standard conventions of English language. In addition, students will reinforce their vocabulary knowledge for a better understanding of English in everyday situations.

**INGL 1110 Basic English II**

**2 Credits**

In this course, students will examine the standard conventions of English grammar when listening, speaking, reading, and writing. They will also compose paragraphs by using the rules of English grammar. Moreover, students will explore grammar and vocabulary used in day-to-day situations, such as casual or professional conversation.

**INGL 2104 Conversational English**

**2 Credits**

**Prerequisites: INGL 1110**

In this course, students will examine phonological patterns, vocabulary, and the grammatical structures of utterances of basic English. Furthermore, they will apply social and functional formulas of the language. Students will demonstrate listening, reading, writing, and verbal communication skills in natural speech and in structured situations.

**INGL 2104L Conversational English and Laboratory**

**2 Credits**

**Prerequisites: INGL 1110**

In this course, students will examine phonological patterns, vocabulary, and the grammatical structures of utterances of basic English. Furthermore, they will apply social and functional

formulas of the language. Students will demonstrate listening, reading, writing, and verbal communication skills in natural speech and in structured situations.

### **INTE 1215 Internet Fundamentals and Managements**

**2 Credits**

**Prerequisites: ADRE 1097**

This course provides students with the knowledge, basic tools and resources available to work on the Internet. Providing an overview of the Internet, how to configure and operate the World Wide Web and the training needed to work with such functions as; browsers, search, configurations, history and cookies. Also provides basic knowledge in web designing.

### **LINE 1005 Air Lines**

**2 Credits**

**Prerequisites: None**

In this course, students will examine the specialized terminology of the airline industry, reservation procedures, the issuance of domestic and international tickets, and the fare system. They will distinguish the regulations of the airline industry, cruises, and excursions. Students will prepare the necessary documents for a trip. In addition, they will identify the requirements for establishing a travel agency in Puerto Rico.

### **LITE 1001 Computer Literacy**

**2 Credits**

**Prerequisites: None**

This course offers students the opportunity to learn the historical development of computers and their impact on society, the same components and functions, terminology, operating systems, Internet basics, networking, word processing, database data and future projections. This course is designed for students interested to learn about the management of a computer for the simplification of jobs and tasks, as well as initiating its knowledge in the field of computing.

### **MADO 1003 Keyboard Skills**

**2 Credits**

**Prerequisites: None**

This course comprises the mastering of the different keyboarding features of the alphanumeric keyboard. It covers the basic techniques, proofreading and centering. The

student develops the ability to write 19 WPM with a maximum of five errors and will acquire skills that validate their abilities as a specialist in Microsoft Office products through the Word Certification Program at a basic level. They can perform existing positions in private offices, government agencies and businesses. The student, as part of the course, will meet different people who master the keyboard acquiring an overview of the advantages of this.

### **MATE 1221 Applied Mathematics**

**2 Credits**

**Prerequisites: None**

In this course, the student will develop knowledge of basic mathematical operations, such as addition, subtraction, multiplication, and division of whole numbers, decimals, and fractions. They will analyze the basic concepts of algebra, geometry, and trigonometry. In addition, they will apply the formulas used in their field of study to solve problems.

### **MATE 1222 Basic Mathematics**

**2 Credits**

**Prerequisites: None**

In this course, the student will apply knowledge of basic mathematics in practical exercises and everyday situations. Students will solve basic mathematical operations of addition, subtraction, multiplication, and division in numerals, integers, decimals, and fractions. In addition, students will use concepts of percentages, ratios, proportions, and units of weight and measurement.

### **MATE 1223 Business Mathematics**

**2 Credits**

**Prerequisites: MATE 1222**

This is a basic mathematics course focusing on related business activities. Students will acquire fundamental knowledge for the technical / mathematical understanding of business; especially in the banking industry and other businesses. Among the topics included are percentages, simple and compound interest, operating procedures of commercial loans and mathematical terms. Solving problems quickly and accurately is emphasized.

### **MERC 1001L Tourism Marketing and Laboratory**

**2 Credits**

**Prerequisites: ADMI 1001**

In this course, students will discuss the concepts, basic principles, and new marketing techniques for products and services in Puerto Rico's tourism industry. They will analyze the current state of tourism businesses, the characteristics of a marketing department, and the types of advertising and promotional campaigns from the perspective of the new concept of tourism marketing. Students will describe the various phases of marketing a destination or tourist attractions.

### **MERC 2102 Tourism Marketing**

#### **2 Credits**

#### **Prerequisites: None**

In this course, the students learn the basic concepts, principles and new marketing techniques of products and services in the tourism industry. It analyzes the current situation of the tourism companies, marketing department characteristics, types of advertising and promotional campaigns. It includes the description of the Tourism Strategic Marketing System and its various stages.

### **OPBA 3002 Banking Operations I**

#### **2 Credits**

#### **Prerequisites: None**

The student will acquire basic principles of some of the daily operations performed in different financial institutions such as commercial banks, savings and Credit associations, consumer and Credit unions, mortgage banks, finance companies and investment banks. They will acquire knowledge about the history and development of the banking system, money changing, and organizational structure of financial systems, the Federal Reserve System, cash procedures, current account and other bank procedures. Also includes, the search of information through interviews and visits to financial institutions.

### **OPBA 3003 Banking Operations II**

#### **2 Credits**

#### **Prerequisites: OPBA 3002**

The student will continue their acquisition of knowledge about banking operations. The student will be familiarized with the functions of the safes, and banking accounting, regulations, collections and auditing. In addition, subject covered are: basic concepts of commercial Credit offered by different financial institutions, Credit

history, federal rules and regulations, direct or indirect loans, financing, electronic fund transfers, processing leases, the Fair Debt Collection Act practices and other loan recovery procedures. Special projects included through interviews, surveys and visits to financial institutions.

### **OFIC 3008 Externship**

#### **2 Credits**

#### **Prerequisites: PRCO 1002, REME 1002, FACT 3013**

In this course, students will apply and practice all the skills and knowledge acquired to demonstrate mastery of the procedures in documentation management within a medical office. Among the documents and tasks to be performed are letters, memos, reports, tables, payroll, schedules, legal documents, presentations, electronics agendas, medical billing and archiving among others. It is expected that the student learn to use the highest possible level all office equipment.

### **OPCO 2096 Computer Operating Systems (Windows)**

#### **2 Credits**

#### **Prerequisites: HARD 1204**

In this course the basic concepts, structure and functions of a computer are discussed. The student will learn the basic commands, techniques and procedures for handling a computer, through operating systems and application programs. Practical exercises will be performed in the lab with the purpose of exposing the students to the basic and intermediate use of Windows operating systems and application programs for computers. In addition, the course encourages students to develop skills in research, analysis and comparison, by conducting a project where multiple operating systems are compared.

### **OPCO 2097 Operating Systems Open Sources**

#### **2 Credits**

#### **Prerequisites: OPCO 2096**

This course provides activities to learn techniques for managing, installing and administrating open sources systems. It includes the basics principles to be able to use the Linux and other systems and information about what are open sources systems.



**PRCO 1002 Production of Business Documents (Basic)**

**2 Credits**

**Prerequisites: MADO 1003**

This second course provides students with the skills needed for the preparation of commercial letters, end block and modified block styles, with indentation and traditional and simplified memos, from draft to acceptable formats. Students will carry out a search (special project) of documents, classifying them by type and use. Student will develop the ability to write a minimum of 23 words per minute with a maximum of 4 errors on tests of three minutes. They will also gain knowledge on mail merge functions, labels, and envelopes.

**PROA 1001 Office Administration Procedures**

**2 Credits**

**Prerequisites: None**

This course has been designed to introduce students in their profession and in the medical billing field. There is emphasis on the importance of basic qualities that an administrative assistant and a medical biller should possess in order to efficiently perform their work in the market. Interpersonal relations are noted, as well as work ethics, communication, and quality in client service. In addition, students will know the basic principles of management, administrative undertaking, marketing, human resources, medical records and applicable legislation, as well as the proper handling of medical records.

**REDE 1215 Installation, Configuration, Administration and Support of Operating Systems (Windows)**

**2 Credits**

**Prerequisites: ADRE 1004**

In this course, the student learns to provide support to end users who use desktop operating systems (Microsoft Windows) in a home environment. The student should be able to solve problems with the operating system via telephone, remote desktop connection or visiting the end user's desktop. Must have knowledge in the installation and configuration of Windows operating systems, open images on a network system and manage operations in a workgroup or Active Directory domain environment and how the user is affected by each environment.

**REDE 1216 Server Applications**

**2 Credits**

**Prerequisites: Concurrent with ADRE 1006**

This course provides students with the knowledge and skills required to install, configure, manage, and troubleshoot a secure messaging infrastructure by using Microsoft Exchange Server. This course offers a significant number of hands-on practices, discussions, and assessments that assist students in becoming proficient in the skills that are needed to update and support this messaging application. Subject matter related to CompTIA Network+ Microsoft certifications.

**REME 1002 Production of Medical Documents and Electronic Record**

**2 Credits**

**Prerequisites: MADO 1003**

This course provides the student with learning activities to refine the highest possible level skills in managing the computer system and the theoretical and technical knowledge acquired previously. The use of the templates provided by the system to prepare professional documents including elements of art, newspaper columns, tables and medical forms, agendas, minutes, and other documents that are performed in a medical office. It provides the tools to manage the office with control and efficiency. It allows the student to understand the handling of electronic medical records in a complete and efficient manner, by using the Secure EMR program and Inmediata. The following functions will be studied: personal agenda, messages, new patient appointments, follow-up appointments, patient demographic information, plan registration, adjustment of co-payments, among others.

**RENE 1001 Preparatory Course for Certifications in Computer Systems Administration**

**2 Credits**

**Prerequisites: Concurrent with SERE 3001 and VIRT 1001**

This is a preparatory course for the CompTIA Network + Certification. The CompTIA organization is the largest independent company in the world. It is developed with the support of leading technology companies and are validated by experts around the world. The CompTIA Network + certification validates the ability of a professional to select, connect, configure and

troubleshoot basic networking, including wireless and security technologies.

### **REPA 1023 Teller I (Manual)**

**2 Credits**

**Prerequisites:** OPBA 3003

This course offers students theoretical and practical knowledge about the main features, requirements and job expectations Receptor-Payer in financial institutions. It includes the study and practice through exercises and simulations on the concepts of the payment function, money management, security, bank fraud and manual bank transactions.

### **REPA 1024 Teller II (Computerized)**

**2 Credits**

**Prerequisites:** REPA 1023

This course provides students with knowledge and skills related to computerized transaction processing terminals. The course is offered in the laboratory, where students will implement everything learned during the previous session and will start to learn the IBC Teller System.

### **REPA 1025 Teller III (Computerized)**

**2 Credits**

**Prerequisites:** REPA 1024

This course offers the student opportunity to continue acquiring and refining their knowledge and skills in the banking transaction by using of the program IBC Teller System. It includes the execution and processing of diverse transactions that required in the commercial banks, mortgage banks, associations of Credit, financiers and cooperatives of savings. The course emphasized in the development of the speed, exactitude and handling of the computerized systems.

### **RESE 1006L Computerized Reservations and Laboratory**

**2 Credits**

**Prerequisites:** LINE 1005

In this course, students will demonstrate specific procedures for confirming reservations and complementary requests. They will make computerized reservations using various registration and reservation applications for hotels, airlines, cruise ships, and trains, among others. Students will prepare quotes for flights, hotels, fares, and expeditions, among other special services a traveler may request. They will also identify the documents, visas, and other

requirements for traveling in Puerto Rico and abroad.

### **SERE 3001 Network Security**

**2 Credits**

**Prerequisites:** ADRE 1006

This course includes intensive study of the techniques used to protect computer systems from intrusion, explaining in detail the techniques of defense and factors to consider when trying preventing attacks from outside. It will also instruct the student in the latest security industry recommendations and how to properly protect Windows and Windows Server, servers in a variety of settings and how to conduct security audits. Subject matter related to CompTIA Network+ Microsoft certifications.

### **SERV 1005 Customer Service**

**2 Credits**

**Prerequisites:** None

In this course, students will compare the basic principles of service, organizational structure, and consumer characteristics and expectations. They will review successful strategies for quality service, increasing satisfaction, and controlling and evaluating the company's customer service processes. Additionally, they will differentiate between various customer service and support techniques.

### **SERV 2011 Computer Users Support and Technical Writing**

**2 Credits**

**Prerequisites:** LITE 1001, HARD 1204 and concurrent with ADRE 1006

This course provides useful methods in the implementation of support services to users and computer systems. Students will put together necessary documentation with the context of, end user support services and will participate in individual and group activities. This course presents case studies of projects and practices to develop student knowledge and skills.

### **SERV 3001 Customer Services**

**2 Credits**

**Prerequisites:** None

This course provides students the opportunity to learn about the cycle of service and customer service, as an element of competitiveness in the industry. The study of basic concepts and principles of service, structural organization of



the Customer Service Department, characteristics and requisites of the contact person, types of customers, necessities and expectations of the consumer, successful strategies for quality services and increment of satisfaction, control and evaluation of the company's customer attention processes. They will also discuss the following service techniques and customer attention: direct attention to the internal and external client, call center and communication process as an important tool in the service and staff performance.

### **TURI 1004 Introduction to Tourism and Hotels**

#### **2 Credits**

#### **Prerequisites: None**

In this course, students will examine the historical development and main components of the tourism industry. They will differentiate between types of travel, legislation, agencies, and cruises, as well as the professional associations that regulate and support tourism in Puerto Rico and abroad. They will discuss the various types of hotels and tourism, along with the socioeconomic benefits of the tourism and hospitality industries.

### **VIRT 1001 Virtualization**

#### **2 Credits**

#### **Prerequisites: OPCO 2096**

This course emphasizes the creation of virtual hardware and software platforms, rather than creating them physically. This will create computers, servers and virtual networks in order to reduce costs involved in the physical creation of these platforms. It also offers the advantage of virtually testing new equipment before being physically acquired, ensure that it is working and not lose the investment of buying a machine does not work as expected. Other benefits include implementation of security measures and management resource in a flexible and centralized environment.

***ARTS AND TECHNOLOGY  
ACADEMIC PROGRAMS***

## Diploma in Graphic Design

### DESCRIPTION

The Graphic Design diploma program will prepare students with the competencies required for planning, analyzing, and creating effective visual communication. Additionally, students will apply sketching, color, typography, illustration, and printing techniques for designing competitive visual statements or arguments. Students will also create designs for multimedia, corporate identity, videos, web, social media, and advertising, among others. They will develop skills in managing and operating a graphic design business. Graduates of this program will be able to work as graphic designers or artists in print shops, advertising and marketing agencies, and public or private companies, either in-person or remotely, or as owners of their creative businesses.

### PROGRAM COMPETENCIES

1. Apply theoretical and practical knowledge related to specialized design techniques and software in their professional performance as graphic designers.
2. Analyze texts, drawings, images, and designs in a logical and critical manner for the creative solution of visual communication problems.
3. Employ oral and written communication skills for assertively expressing their ideas, as well as effective visual communication techniques in their roles as graphic designers.
4. Utilize technological, computer, and digital means efficiently to create effective designs.
5. Demonstrate collaborative work skills, a sense of responsibility, respect for diversity, and good ethical and moral judgment in compliance with laws.

### LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

### MINIMUM REQUIREMENTS

2 Credits in General Education Courses

34 Credits in Major Courses

### 36 Total Credits

### GENERAL EDUCATION COURSES

ESPA 1007	Basic Spanish	2
		<b>2</b>

### MAJOR COURSES

GADE 1003L	Sketching Techniques and Laboratory	2
OPCO 2098L	Operating Systems (Macintosh) and Laboratory	2
GDAR 1025L	Color Theory and Laboratory	2
GADE 1022L	Basic Typography and Laboratory	2
GDAR 1001L	Graphic Design Principles and Laboratory	2
GADE 1039L	Digital Photography for Advertising and Laboratory	2
GDAR 1026L	Creativity in Graphic Design and Laboratory	2
TEMA 1023L	Scanning and Digital Image Manipulation and Laboratory	2
GADE 1040L	Digital Design for Publishing and Laboratory	2
GADE 1046L	Commercial Digital Design and Laboratory	2
GADE 1047L	Design for Multimedia and Web and Laboratory	2
GADE 1042L	Graphic Design in Advertising and Laboratory	2
GADE 1048L	Motion Graphics and Video Editing and Laboratory	4
TEMA 1024L	Digital Reproduction Methods and Laboratory	2
GADE 1049L	Study Portfolio Preparation and Laboratory	2
ADMI 2033	Business Administration and Management	2

**TOTAL CREDITS** **34**  
**36**

# Diploma in Preschool Teacher Assistant

## DESCRIPTION

The Preschool Teacher Assistant Program will prepare students with the knowledge and skills necessary to collaborate in the strategic work of preschool-level teachers. They will apply technology integration techniques, techniques for different teaching modalities, and methodological competencies for planning and evaluating activities that support the teaching-learning process and the holistic development of children. In addition, students will demonstrate knowledge of laws, educational standards, and administrative, organizational, supervisory, and control processes applicable to preschool centers in Puerto Rico. Graduates of this program will be able to work as preschool teacher assistants or hold similar positions in different educational or preschool care settings as employees or business owners.

## PROGRAM COMPETENCIES

1. Apply in a way that is efficient and innovative the technical skills and theoretical knowledge necessary for working as preschool teacher assistants.
2. Develop critical, creative, and logical thinking skills for planning and evaluating educational activities that promote the teaching and learning of children.
3. Utilize computer and digital media for effective decision-making and communication with students, parents, teachers, and other community members.
4. Integrate skills, strategies, and activities that foster collaborative work, healthy interpersonal relationships, values, and compliance with laws related to their profession.

## LANGUAGE OPTION AND MODALITY

- Available in Spanish language via on ground delivery method.
- Students should only enroll in courses and programs delivered in Spanish at NUC University if they have an adequate master of the Spanish language.

## MINIMUM REQUIREMENTS

4 Credits in General Education Courses

32 Credits in Major Courses

## 36 Total Credits

## GENERAL EDUCATION COURSES

INGL 1109	Basic English I	2
ESPA 1007	Basic Spanish	2
		<b>4</b>

## MAJOR COURSES

EDUC 1020	Principles of Preschool Education, Childhood, and Family	2
EDUC 1021L	Growth and Development of Preschool Children and Laboratory	2
TECN 1002L	Fundamentals of Educational Technology and Laboratory	2
INFA 1002	Organization and Administration of a Preschool Center	2
EDUC 1016	Social / Emotional and Cognitive/Moral Development in Children	2
EDUC 1501L	Preschool Education for Exceptional Children and Laboratory	2
ENFE 1000	Emergency Situations and First Aid	1
SALD 1001	Preschool Health and Nutrition	1
EDUC 1018L	Language Stimulation and Development and Laboratory	2
EDUC 1022L	Curriculum Design and Assessment in Preschool Education and Laboratory	2
EDUC 1023L	Integration of Mathematics, Language Arts, and English at the Preschool Level and Laboratory	2
EDUC 1019L	Children's Literature and Laboratory	2
EDUC 1024	Teaching Methodology at the Preschool Level	2
JUEG 1001L	Play and Creative Expression and Laboratory	2
SEMI 1003	Occupational Seminar	2
MAET 1001P	External Practice	4
		<b>32</b>

## TOTAL CREDITS

**36**

## NOTES:

- \*Externships will be performed in establishments outside the Institution, according to availability. Specific practice centers, days and schedules are not guaranteed.

## ***ARTS AND TECHNOLOGY COURSE DESCRIPTIONS***

**ADMI 2033 Business Administration and Management**

**2 credits**

**Prerequisite: None**

In this course, students will examine basic principles of business administration and management. They will discuss topics related to planning, organization, direction, and decision-making. They will distinguish the characteristics of a manager, as well as the functions and challenges of an administrator.

**EDUC 1016 Social / Emotional and Cognitive/Moral Development in Children**  
**2 credits**

**Prerequisites: EDUC 1021L, TECN 1002L**

**Corequisite: EDUC 1501L**

In this course, students will apply theoretical and practical concepts related to children's socio-emotional development. Likewise, they will discuss the stages of social development and their relation to identity, self-esteem, autonomy, emotional expression, and social integration in children. In addition, they will examine the role of various aspects of their environment, such as family, school, values, and customs.

**EDUC 1018L Language Stimulation and Development and Laboratory**

**2 credits**

**Prerequisites: EDUC 1021L, TECN 1002L, EDUC 1016**

In this course, students will explain educational theories, approaches, and conditions that stimulate language development in children. Likewise, they will complete activities for the development of auditory verbal, comprehension, and interpretation skills and vocabulary acquisition. In addition, students will identify the duties of teachers and educational assistants in the creation of environments that promote language development at an early age.

**EDUC 1019L Children's Literature and Laboratory**

**2 credits**

**Prerequisite: EDUC 1018L**

In this course, students will analyze the importance of children's literature as a means for building knowledge within the holistic development of the child. Likewise, they will discuss its function, its elements, and the literary genres that compose it. They will also utilize techniques and creative strategies in the study of various literary genres.

**EDUC 1020 Principles of Preschool Education, Childhood, and Family**

**2 credits**

**Prerequisite: None**

In this course, students will examine the historical, social, and cultural background of preschool education, as well as advances in this field and childhood learning in general. Likewise, they will discuss the main philosophical trends that have influenced preschool curriculum models. In addition, students will analyze abuse prevention laws and educational reform laws, as well as the structure of the public and private education system. They will also explain the relationship between the child, family, community, and educators.

**EDUC 1021L Growth and Development of Preschool Children and Laboratory**

**2 credits**

**Prerequisite: None**

In this course, students will examine the main psychomotor development theories and essential aspects of physical growth and development between the ages of 2 to 5. Likewise, they will discuss the internal and external factors that affect child development. In addition, students will make direct observations and evaluations of preschoolers.

**EDUC 1022L Curriculum Design and Assessment in Preschool Education and Laboratory**

**2 credits**

**Prerequisites: EDUC 1021L, TECN 1002L, EDUC 1016, EDUC 1501L**

**Corequisite: EDUC 1023L**

In this course, students will examine curriculum design and assessment processes in preschool education. Likewise, they will explain the new teaching trends and modalities considered in the design and assessment of programs and courses. In addition, students will design study plans that include the implementation and evaluation of teaching strategies. Additionally, they will analyze assessment instruments and techniques for early childhood learning.

**EDUC 1023L Integration of Mathematics, Language Arts, and English at the Preschool Level and Laboratory**

**2 credits**

**Prerequisites:** EDUC 1021L, TECN 1002L, EDUC 1016, EDUC 1501L  
**Corequisite:** EDUC 1022L

In this course, students will demonstrate the knowledge required when teaching math, language arts, and English. In addition, they will apply constructivist methodologies and strategies for fostering diversity in early childhood. Likewise, students will develop innovative activities that promote effective learning.

**EDUC 1024 Teaching Methodology at the Preschool Level**

**2 credits**

**Prerequisite:** EDUC 1022L, EDUC 1023L

In this course, students will examine the concepts and principles of planning, techniques, strategies, and appropriate methodologies for teaching and learning processes with preschool children. They will evaluate various methods and teaching resources that influence decision-making in the educational process. They will associate the role of teachers with the creation of methodologies aligned with themes and the development of comprehension and interpretation skills in each preschool child.

**EDUC 1501L Preschool Education for Exceptional Children and Laboratory**

**2 credits**

**Prerequisites:** EDUC 1021L, TECN 1002L

**Corequisite:** EDUC 1016

In this course, students will analyze the different types of disabilities, as well as their causes and characteristics, and the needs of exceptional children. Likewise, they will identify the changes and challenges that families of children with functional diversity face and their role in the teaching and learning process. In addition, students will examine the laws that guarantee access to educational and health services for this population. They will also make observations in different preschool programs for the identification of methods, teaching strategies and materials designed to satisfy the needs of this population.

**ENFE 1000 Emergency Situations and First Aid**

**1 Credit**

**Prerequisite:** SALD 1001

In this course, students will identify emergency situations in educational settings. Likewise, they will explain the incidence and common causes of

accidents, as well as changes in the body that pose a risk to a child's life and relevant preventive measures. In addition, students will identify first aid and intervention procedures, principles, and techniques necessary when health and physical wellbeing are compromised.

**ESPA 1007 Basic Spanish**

**2 Credits**

**Prerequisite:** None

In this course, the student will produce oral and written presentations using the grammatical rules that govern the Spanish language. In addition, students will analyze texts with varying degrees of complexity. Students will write with varied vocabulary, correct syntax, and proper spelling.

**GADE 1003L Sketching Techniques and Laboratory**

**2 credits**

**Prerequisite:** None

In this course, students will develop drawing techniques related to the creative process. They will use sketching techniques to solve visual and written communication problems. They will illustrate ideas to present concepts or design projects.

**GADE 1022L Basic Typography and Laboratory**

**2 credits**

**Prerequisite:** None

In this course, students will identify typography and its essential elements. They will classify types of fonts and their parts. They will apply fonts according to the message and the target audience. They will employ the use of typography and its design in various compositions according to the concept to be presented.

**GADE 1039L Digital Photography for Advertising and Laboratory**

**2 credits**

**Prerequisite:** None, **Corequisite:** TEMA 1023L

In this course, students will utilize the necessary tools and instruments for digital photography. They will apply commercial photography and lighting techniques. They will manipulate digital images for design creation.



**GADE 1040L Digital Design for Publishing and Laboratory**

**2 credits**

**Prerequisite:** GADE 1022L

In this course, students will examine creation and layout tools for publications. They will develop corporate and editorial publications. They will identify requirements and finishes for preparing a document for final publication.

**GADE 1042L Graphic Design in Advertising and Laboratory**

**2 credits**

**Prerequisite:** GADE 1039L

In this course, students will differentiate advertising from graphic design. They will research the factors needed to run a successful campaign. They will integrate digital tools in advertising. They will prepare several pieces for an advertising campaign.

**GADE 1046L Commercial Digital Design and Laboratory**

**2 credits**

**Prerequisite:** GADE 1022L

In this course, students will use artistic and digital techniques for communicating ideas to businesses and audiences. They will explore publishing media and their effectiveness. They will manipulate images to produce commercial advertising pieces such as business cards, loose sheets, logos, banners, and more.

**GADE 1047L Design for Multimedia and Web and Laboratory**

**2 credits**

**Prerequisite:** GADE 1001L, GDAR 1025L

In this course, students will explain the development, implementation, testing, and updating of interfaces. They will discuss web page and application designs. They will design an application or web page using programming languages.

**GADE 1048L Motion Graphics and Video Editing and Laboratory**

**4 credits**

**Prerequisite:** TEMA 1023L

In this course, students will distinguish techniques, tools, and formats for video creation. They will use video editing and animated graphics tools. They will create an advertising announcement assigned by the professor.

**GADE 1049L Study Portfolio Preparation and Laboratory**

**2 credits**

**Prerequisites:** GADE 1039L, GADE 1040L, GADE 1042L, GADE 1046L, GADE 1047L, GADE 1048L

In this course, students will develop skills for creating a resume. They will practice skills and techniques related to job interviews. They will design their own professional brand by making creative pieces such as a logo, business card, and professional portfolio.

**GDAR 1001L Graphic Design Principles and Laboratory**

**2 credits**

**Prerequisite:** None

In this course, students will analyze the principles of graphic design. They will discuss the history, role, and evolution of design in the field of visual and written communication. They will examine topics related to graphic composition, topography, colors, symbols, and materials for digital reproduction.

**GDAR 1025L Color Theory and Laboratory**

**2 credits**

**Prerequisite:** None, **Corequisite:** GDAR 1001L

In this course, students will analyze color theory, its history, and its significance in different cultural and geographical contexts. They will examine the concepts of semiotics, harmony, and contrast, as well as their classifications. They will evaluate color theory techniques and their impact on graphic design messaging.

**GDAR 1026L Creativity in Graphic Design and Laboratory**

**2 credits**

**Prerequisite:** None

In this course, students will develop creativity techniques. They will use creativity for effective visual and written communication. They will integrate sketching, photography, and color theory techniques.

**INFA 1002 Organization and Administration of a Preschool Center**

**2 credits**

**Prerequisite:** None

In this course, students will analyze the planning, organization, regulation, supervision, and control processes of a preschool care center. Likewise, they will identify the permits required by the state for opening this type of center, as well as other administrative requirements. In addition, they will evaluate the transversal competencies based on the personality and technical knowledge personnel should have according to the center or type of service offered.

### **INGL 1109 Basic English I**

**2 credits**

**Prerequisite: None**

In this course, students will demonstrate command of the basic rules of English grammar and their usage both orally (listening and speaking) and in writing (reading and writing). They will compose sentences by using the standard conventions of English language. In addition, students will reinforce their vocabulary knowledge for a better understanding of English in everyday situations.

### **JUEG 1001L Play and Creative Expression and Laboratory**

**2 credits**

**Prerequisite: EDUC 1021L**

In this course, students will analyze the importance of the development of creative expression in early childhood. Likewise, they will examine the basic concepts of new educational models based on the stimulation and development of creativity, body language, and visual arts. In addition, students will reflect on the importance of play as a fundamental strategy in the teaching and learning process during early childhood. They will also demonstrate the knowledge acquired in the laboratory.

### **MAET 1001P External Practice**

**4 credits**

**Prerequisites: ENFE 1000, EDUC 1020, EDUC 1021L, TECN 1002L, INFA 1002, EDUC 1016, EDUC 1501L, SALD 1001, EDUC 1018L, EDUC 1022L, EDUC 1023L, EDUC 1019L, EDUC 1024, JUEG 1001L**

In this course, students will apply knowledge, methodologies, and teaching techniques for the education of preschool-level children. They will develop a safe and healthy learning environment for preschool students. Additionally, they will implement teaching norms, procedures, and

professional behaviors that foster the holistic development of early childhood students.

### **OPCO 2098L Operating Systems (Macintosh) and Laboratory**

**2 credits**

**Prerequisite: None**

In this course, they will examine Macintosh operating systems and their role in MAC devices. They will use commands to organize and archive documents on MAC devices. They will apply file movement and storage in multimedia formats.

### **SALD 1001 Preschool Health and Nutrition**

**1 credit**

**Prerequisite: EDUC 1021L**

**Corequisite: ENFE 1000**

In this course, students will examine the fundamentals of holistic health in children. Likewise, they will discuss the importance of nutrition for development, growth, and prevention of disorders and diseases, as well as the components of a healthy diet and the nutritional value of food. In addition, students will identify common accidents in preschoolers and methods for their prevention.

### **SEMI 1003 Occupational Seminar**

**2 credits**

**Prerequisite: None**

In this course, students will identify the aptitudes, abilities, and competencies needed for a successful integration into the labor market. Likewise, they will apply skills for the preparation of the documentation required when searching for a job. In addition, they will distinguish innovative and effective techniques for preparing before a job interview and employment retention strategies.

### **TECN 1002L Fundamentals of Educational Technology and Laboratory**

**2 credits**

**Prerequisite: None**

In this course, students will examine the basic learning theories and principles in the design, development, implementation, and evaluation of teaching using educational technology. Likewise, they will use both traditional and innovative technologies for effective learning. In addition, students will use supporting material in the teaching-learning process.

**TEMA 1023L Scanning and Digital Image Manipulation and Laboratory**

**2 credits**

**Prerequisite: None**

In this course, students will apply graphic design processes and image manipulation. They will use tools for image treatment and enhancement to optimize images. They will identify appropriate usage formats and image quality for each project.

**TEMA 1024L Digital Reproduction Methods and Laboratory**

**2 credits**

**Prerequisite: TEMA 1023L**

In this course, students will discuss topics related to different types of printing, materials, and finishes, including their advantages and disadvantages. They will examine graphic reproduction processes and formats for preparing a final artwork. They will explain the specifications for various commercial reproduction media.

## ***ADMINISTRATION & FACULTY***

# Corporate Administration

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Damaris Rodríguez Rivera .....	Executive VP of Student Finance
Elizabeth Cruz Rivera .....	Corporate VP of Financial Aid
Wilnelia Ramos Torres .....	Corporate VP of Student Accounts
Jennifer Caraballo Robles .....	VP of Marketing PR Operations
Yaran K Correa Padro. ....	VP of Academic Affairs - Technical Education
Mariangie Del Valle Morell .....	VP of Information Technology
Lilimar Vélez Puchales .....	VP of Registrar & Business Integration
Dr. Aixa M. Flores Pérez .....	VP of Nursing Program
Dr. Dolymary García .....	VP of Academic Development
Yarelis González Colón .....	VP of Enrollment Management
Karen Morales López .....	Associate VP of Assessment and Effectiveness
Yamaira Serrano Peña .....	Institutional Director of Human Resources
Emmeline López Santiago .....	Institutional Director of Continuing Education
Beany R. Díaz Campos .....	Corporate Director of Retention
Pedro Padilla Velázquez .....	Corporate Director of Student Accounts
Vanessa Pagán Prado .....	Corporate Director of Placement
Yelitza Gutierrez Falcón .....	Marketing Director
Sergio Palacio Pirez .....	Purchasing Director
Angélica M. Torres Serrano .....	Compliance Director
Konrad Wittenberg .....	Facilities Management Director
Solimar Calo Ramírez .....	Student Affairs Director
Wandeline Pizarro Colón .....	Regional Director of Admissions
Juan Morales Mercado .....	Director of Nursing Programs Curriculum
Wilda Vélez Valdivieso .....	Director of Nursing Destination Program
Mariely Torres Meléndez .....	Institutional Director of Physical Therapy
Nedska Rivera Caride .....	Institutional Coordinator of Culinary Arts
Joselyn Joseph Ortiz .....	Director of Beauty Programs
Luis Milian Torres .....	Director of Health Programs
René Meléndez Collazo .....	Director of Technical Programs
Alejandro Ferris Wallis .....	Cafeteria Administrator
Dr. Juanita García Reyes .....	Corporate Associate Dean of Academic Affairs
Rosa Cruz Colón .....	Academic Affairs Dean - Technical Education
Frances Fernández Torres .....	Senior Finance Manager
Adalis Maldonado Morales .....	Admissions Intelligence Manager
Mileya Berríos Agosto .....	Academic Affairs Coordinator
Sheila Concepción Martínez .....	Financial Aid Services Coordinator
Sheila Alvarado Rivera .....	Institutional Coordinator of Interagency Liaison
Marilyn Rivera Castro .....	Default Prevention Coordinator
Maribel Rosario Zayas .....	Continuing Education Coordinator
Stephanie Santos Marrero .....	Account Administration Coordinator

# Arecibo Region Administration & Faculty

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## Campus Administration

Dr. Gaisy Martínez .....	Chancellor
Janis González.....	Academic Affairs Dean
Ángel Arroyo .....	Operations Director
Milagros Núñez.....	Student Accounts Director
Aida Pérez.....	Student Affairs Director
Evelyn Quiñones.....	Financial Aid Director
Jessie Candelaria .....	Admissions & Marketing Director
Jaqueline Rivera .....	Registrar
Dr. Francisco Núñez.....	Evening Coordinator
Sonia Carrión .....	Marketing Coordinator
Yaritza Jiménez .....	Tutoring Coordinator
Diana González .....	Basics Skills Laboratory Technician
Yalitza Freytes.....	Counselor
Carmen Núñez .....	Professional Counselor
Pablo Rivera.....	Library Director
María Rivera.....	Placement Officer
Grace Soto.....	Effectiveness Officer
Lisandro Casanova.....	Systems Administrator

## IBC Technical Division – Arecibo Administration

Jacqueline Irizarry .....	Executive Director
Enrique Reyes .....	Academic Director
Wendy Flores .....	Evening Coordinator
Mayra Rodríguez .....	Library/Study Hall
Christylorraine Díaz.....	Admissions
Xiomara Lugo.....	Placement
Migdalia Torres.....	Retention
Yolanda Anca .....	Registrar
Zil Mestey .....	Academic Counseling
Alvin Pérez.....	Financial Aid
Jacqueline Torres .....	Student Accounts

## IBC Technical Division – Manatí Administration

Benjamín Padilla.....	Executive Director
Luz E. Manuel .....	Academic Director
Carlos Salgado .....	Students Affairs and Evening Coordinator
Jovaleska Torres.....	Library
Luz Nilda Ortiz.....	Admissions
Angélica Rodríguez .....	Placement
Pedro Nazario.....	Retention
Yolanda Anca .....	Registrar
Joharelys Soto.....	Academic Counseling
Marangely Santos.....	Financial Aid
Judy García .....	Student Accounts

# Arecibo Region Faculty

## Campus Faculty

### *Academic Administrative Staff*

**Román-Suárez, Joseph** – Nursing Program Director  
MSN, University of Puerto Rico  
BSN, University of Puerto Rico  
ADN, Interamerican University of Puerto Rico

**Velázquez-Maldonado, Yaira** – Business  
Administration Coordinator  
MBA, Interamerican University  
BBA, University of Puerto Rico

**Cortés-Rivera, Vanessa** – Health Sciences Program  
Director  
DMD, Universidad Central del Este

**Meléndez-Castro, Irma** – Technology Coordinator  
Ed.D., Interamerican University of Puerto Rico  
MBA, Sacred Heart University  
BS, University of Puerto Rico  
AD, University of Puerto Rico

**Morales-Rodríguez, Yamilie** – Criminal Justice  
Coordinator  
MPA, Universidad del Turabo  
BA, Interamerican University of Puerto Rico

**Ocasio-Reillo, Ana** – Distance Education Director  
MBA, Sacred Heart University  
BS, University of Puerto Rico

### *Faculty*

**Acevedo-Viruet, María** – Network Technology  
Ed.D., Nova Southeastern University  
MBA, University of Phoenix  
BS, University of Puerto Rico

**Aquino-Soto, Idalia** – Nursing  
MSN, EDP University of Puerto Rico  
BSN, University of Puerto Rico

**Batista-González, Madeline** – Clinical Liasion  
MSN, University of Puerto Rico  
BSN, Interamerican University of Puerto Rico

**Bravo-Rodríguez, María** - Spanish  
MA, University of Puerto Rico

BA, University of Puerto Rico

**Burgos-Curbelo, Lourdes V.** - Nursing  
MSN, Interamerican University of Puerto Rico  
BSN, University of Puerto Rico

**Candelaria-Morales, Sandra** - Clinical Liasion  
MSN, Interamerican University of Puerto Rico  
BSN, University of Puerto Rico

**Hernández-Corraliza, Leinyn** - Nursing  
MSN, Interamerican University of Puerto Rico  
BSN, Interamerican University of Puerto Rico

**Padín-Gumá, Wanda** - Health Sciences  
MA, University of Phoenix  
BS, University of Puerto Rico

**Pérez-Lugo, Arnaldo** - Health Sciences  
Dental Surgeon Degree, Autonomous University of  
Puebla, México

**Quijano-Rivera, Amelia** - English  
MA, Interamerican University of Puerto Rico  
BA, University of Puerto Rico

**Rodríguez-Aquino, Israel** - Pharmacy  
BSPH, University of Puerto Rico

**Santiago-García, Maritza** - Nursing  
MSN, Interamerican University of Puerto Rico  
BSN, Interamerican University of Puerto Rico

**Santiago-Rivera, Ana** - Nursing  
MSN, Interamerican University of Puerto Rico  
BSN, Interamerican University of Puerto Rico

**Santiago-Rivera, Karla M.** - Nursing  
MSN, Interamerican University of Puerto Rico  
BSN, University of Puerto Rico

**Toledo-Collet, Wanda I.** - Nursing  
MSN, Interamerican University of Puerto Rico  
BSN, National University College

## IBC Technical Division – Arecibo Faculty

### *Academic Administrative Staff*

**Cabrera Rodríguez, José** – Master Lead Culinary Arts



Diploma, Culinary Art, Instituto de Educación Vocacional de Corozal. Puerto Rico

**Barbosa Vega, Madeline** - Lead Professor - International Pastry and Baking  
Diploma, International Pastry and Baking, NUC University IBC Institute, Arecibo, PR

**Colón Padua, Genoveva** – Master Lead - Cosmetology  
Diploma, Cosmetology, Instituto de Educación Técnico Ocupacional la Reiné, Manatí, PR

**Cordero Feliciano, Emmanuel** – Lead Professor- Refrigeration and Air Conditioning with Inverters  
Diploma, Refrigeration and Air Conditioning with Inverters  
NUC University IBC Institute, Moca, PR

**González Román, Dialexa** – Lead Professor- Nail Technology  
Diploma, Nail Technology, NUC University IBC Institute – Arecibo, Arecibo, PR

**Marti Rosado, Jomar** – Lead Professor -Professional Esthetician  
Diploma, Professional Esthetician, EDUTEC Educational Technical College, Lares PR

**Rodríguez Rodríguez, Willie** - Lead Professor - Professional Certification of Physical Fitness  
Certification, Professional Certification of Physical Fitness, Apfi Fitness Center Education Inc., San Juan PR  
Bachelor's Degree in Education and Technology with Concentration in Physical Education, Concentration in Special Education-American University of Puerto Rico, Manati Campus, Manati, PR

**Santiago Soto, Nerida** – Lead Professor- Barber and Styling  
Diploma – Barbering and Styling Puerto Rico Barber, Cosmetology& Hairstyling College, Arecibo, PR

**Soto Marrero, Lourdes** – Lead Professor - Cosmetology  
Diploma, Cosmetology, Academia Moderna de Belleza, Manatí

### ***Faculty***

**Alicea López, María M.** – Massage  
Diploma, Massage,- Ana G Méndez University, Aguadilla  
Master's Degree in Administration- Phoenix University  
Bachelor of Science in Business Administration

**Chamorro Carrero, Estervina** – Nail Technology  
Diploma, Nail Technology, NUC University IBC Institute, Arecibo, PR

**Cordero Casaldue, Felipe** – Refrigeration and Air Conditioning with Inverters  
Diploma, Refrigeration and Air Conditioning with Inverters  
NUC University IBC Institute, Arecibo, PR

**Cruz Ortiz, Madeline** – English Class  
Master's Degree, Education Administration & Supervision, Phoneix University, Guaynabo, PR  
B.A Elementary Education, Puerto Rico University, Arecibo Campus, Arecibo PR

**Cuebas Abrams, Andrea** – Cosmetology  
Diploma, Cosmetology, Institute of Beauty Careers, Arecibo, PR

**Fuster González, Juan-** Bartending  
Diploma, Bartending, NUC University IBC Institute – Arecibo, Arecibo, PR

**González Torres, Alberto-** Math  
Baccalaureate Arts Secondary Education, Puerto Rico University, Cayey Campus, Cayey, PR

**Irizarry Rodríguez, Francisco** – Nail Technology  
Diploma, Nail Technology, NUC University IBC Institute Arecibo, PR

**Ithier Rivera, Edwin** – Medical Emergencies Technician  
Associate Degree, Medical Emergencies Technician, EDP University of PR

**López Mercado, Eduardo** – Regional and International Cuisine  
Diploma, NUC University IBC Institute, Arecibo, PR

**Martínez Ocasio, Evelyn** – International Pastry and Baking  
Diploma, International Pastry and Baking, NUC University IBC Institute, Arecibo, PR

**Medina Ramos, Aida L** - International Pastry and Baking  
Diploma, International Pastry and Baking, NUC University IBC Institute, Arecibo, PR

**Mercado Arroyo, María** - Esthetics  
Diploma, Esthetics, NUC University IBC Institute,  
Arecibo, PR

**Molina Valentín, Miladys** - Cosmetology  
Diploma, Cosmetology, Modern Hairstyling Institute,  
Arecibo, PR

**Natal Rodríguez, Katherine** - Esthetics  
Diploma, Esthetics, NUC University IBC Institute,  
Arecibo, PR

**Ortiz Viruet, Jesús** - Electricity with PLC  
Diploma, Electricity with PLC, Colegio Educativo  
Tecnológico e Industrial, Arecibo

**Pérez Alicea, Wilfredo** - Electricity with PLC  
Diploma, Electricity with PLC, Colegio Educativo  
Tecnológico e Industrial, Arecibo

**Ramos Concepción, Gabriel M.-** Barber  
Diploma, Barber, Modern Hairstyling Institute, Arecibo  
PR

**Rivera Arroyo, Miguel** – Regional and International  
Cuisine  
Diploma, Regional and International Cuisine, NUC  
University IBC Institute, Arecibo, PR

**Rivera Castro, Anibal** - General Electricity  
Diploma, General Electricity, Escuela de Peritos  
Electricista de Isabela, Inc, Isabela, PR

**Rivera Orengo, Suheil** – International Pastry and  
Baking  
Diploma, International Pastry and Baking, NUC  
UNIVERSITY IBC DIVISION, Arecibo, PR

**Rivera Ruiz, Yahaira N.** - Bartending  
Diploma, Bartending NUC University IBC Institute,  
Arecibo, PR

**Rodríguez Vélez, Johnny** – Barber  
Diploma- Barber, Instituto de Educación Técnica  
Ocupacional La Reine, Manatí, PR

**Román Correa, Salvador** – Barber  
Diploma – Barbering and Styling Puerto Rico Barber,  
Cosmetology & Hairstyling College, Arecibo, PR

**Román Molina, Carmen** – Cosmetology  
Diploma – Cosmetology, Instituto de Educación Técnico  
Ocupacional la Reine, Manatí, PR

**Román La Salle, Rubén III-** Culinary Art  
Diploma - Culinary Art, ICPR Junior College, Arecibo, PR

**Serrano Maldonado, Luis F.** – Culinary Art  
Diploma - Culinary Art, ICPR Junior College, Arecibo, PR

**Vélez Rivera, Dennis** – Culinary Arts Specialist  
Diploma- Culinary Arts Specialist, Escuela Hotelera de  
San Juan, San Juan, PR

## **IBC Technical Division – Manatí Faculty**

### **Faculty**

**Alicea Vega, Waleska** – Cosmetología  
Diploma Cosmetología Avanzada, Institute of Beauty  
Careers

**Andújar Rosario, Kelvin S.** – Mixology/Bartending  
Diploma in Bartender, Instituto de Banca y Comercio

**Aponte Lliteras, Liz Y.** – Panadería y Repostería  
Internacional  
Diploma in Regional and International Cuisine, Instituto  
de Banca y Comercio:  
Diploma in International Pastry and Baking, Instituto de  
Banca y Comercio  
Diploma in Bartending, Instituto de Banca y Comercio

**Arocho Cardona, Hiram** – Electricidad con Energía  
Renovable  
Diploma in Electrician, Vocational School of Manatí-José  
A. Montañez Genaro

**Arroyo Rivera, Yenitz** – Tecnología de Uñas  
Diploma in Full Specialist, Institute of Beauty Careers

**Ayende Rivera, Wynnelis** – Técnico en Entrenamiento  
y Acondicionamiento Físico  
Certificación Entrenador Personal, Departamento de  
Recreación y Deportes  
Bachillerato en Sistemas de Oficina, Universidad de  
Puerto Rico

**Carrión Núñez, Francisco** – Barbería y Estilismo  
Diploma in Barbering and Hairstyling, Instituto de Banca  
y Comercio

**Classen Méndez, José A.** – Técnico de Construcción  
Diploma en Soldadura Básica, First Industrial  
Technological College, Inc.  
Bachelor of Science, Interamerican University  
**Díaz Cruz, Verónica** – Cosmetología

Diploma Cosmetología, NUC University  
Diploma Barbering and Hairstyling, NUC University

**Freytes Colón, Wanda E.** – Enfermería Práctica con Electrocardiografía (EKG)  
Bachelor of Science, University of Puerto Rico

**González Díaz, Yelixsa** – Contabilidad  
Master of Education/Mathematics, Cambridge College  
Bachelor of Business Administration/Accounting,  
University of Puerto Rico

**González Méndez, Héctor M.** – Diseño Gráfico  
Bachelor in Digital Graphic Design, Atlantic University  
College

**López de la Rosa, Leira E.** – Panadería y Repostería Internacional  
Diploma International Pastry and Baking, NUC University

**Marrero Meléndez, Ivelisse** – Tecnología de Uñas  
Diploma in Nail Technician, Institute of Beauty Careers

**Marrero Rivera, Teresa** – Cosmetología  
Diploma in Cosmetology, Academia Moderna de Belleza

**Marrero Vélez, Gretchen M.** – Técnico en Entrenamiento y Acondicionamiento Físico  
Certificación Entrenador Personal, Departamento de Recreación y Deportes  
Diploma in Therapist Massage, Antilles School

**Martínez Figueroa, Kevin O.** – Técnico en Entrenamiento y Acondicionamiento Físico  
Certification in Personal Trainer, University of Puerto Rico

**Mercado Torres, Doris E.** – Español  
Doctor of Education, Interamerican University

**Morales Rosado, Nancy J.** – Estética  
Curso Estética Facial y Corporal, Academia Moderna de Belleza

**Motta Torres, María A.** – Tecnología de Uñas  
Diploma in Nails Technology, Quality Technical & Beauty College

**Ortiz Salgado, Ivonne M.** – Terapeuta de Masaje Profesional  
Diploma in Professional Massage Therapist, Instituto de Banca y Comercio

**Padilla Padilla, Ermelinda** – Cosmetología

Diploma in Basic Cosmetology, Modern Hairstyling Institute  
Diploma in Barbering and Hairstyling, A-1Business and Tech. College  
Diploma in Full Specialist, Rogie's School of Beauty Culture

**Pérez Acevedo, Luis J.** – Terapeuta de Masaje Profesional  
Diploma en Masaje Profesional, Instituto de Banca y Comercio

**Pérez González, Eddie R.** – Técnico de Construcción  
Diploma en Electricity with Renewable Energy, NUC University

**Prieto Vázquez, Alfredo** – Culinary Arts  
Diploma en Cocina Profesional, Globelle Technical Institute, Inc.

**Quiles Mercado, Clariliz** – Culinary Arts  
Bachelor in Culinary Management, Universidad del Este  
Associate in Culinary Arts, Universidad del Este

**Quiles Morales, Emmanuel** – Culinary Arts  
Diploma Chef, Escuela Hotelera de San Juan

**Rodríguez Acevedo, Wilma E.** – Asistente Administrativo con Facturación Médica  
Bachelor in Secretarial Sciences, University of Puerto Rico

**Rodríguez Rosa, Laura E.** – Matemática  
Bachillerato en Educación Elemental con Concentración en Matemática, Universidad de Puerto Rico s

**Rosario Rodríguez, Abner R.** – Técnico de Reparación de Computadoras y Redes  
Associate in Electronics Engineering Technology, Instituto Tecnológico de Puerto Rico

**Santiago Vallenganes, Alex F.** – Español  
Maestría en Artes, Centro de Estudios Avanzados de Puerto Rico y el Caribe

**Santos Meléndez, Valerie** – Técnico de Farmacia  
Associate in Pharmacy Technician, National University College

**Valentín Allende, Raúl** – Electricidad con Energía Renovable  
Diploma in Computer Repairs and Network Technician, National University College-IBC Institute

Diploma in Electricity Technician, Cambridge Technical College

**Valentín Machado, Linnette** – Enfermería Práctica con EKG  
Bachillerato en Enfermería, National University College

**Vallés Pérez, Carlos R.** – Culinary Arts  
Certificate Tech in Culinary Arts, Universidad del Este

**Vargas Cruz, Elisamir** – Cosmetología  
Cosmetología Básica con Salon Fundamentals, Instituto Irma Valentín

**Vázquez Rivera, Axel E.** – Refrigeración y Aire Acondicionado con Inverters  
Diploma in Refrigeration and Air Conditioning with PLC, Instituto de Banca y Comercio

**Vázquez Santana, Yesenia I.** – Asistente Dental con Funciones Expandidas  
Diploma in Surgical Technician, Instituto de Banca y Comercio  
Associate in Dental Assistant with Expanded Functions, National University College:

# Bayamón Region Administration & Faculty

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## Campus Administration

Wigdalys Negrón .....	Chancellor
Kamir Concepción .....	Academic Affairs Dean
Luis Ortiz .....	Operations Director
Lisandra Richiez .....	Admissions & Marketing Director
Yashira Cortés .....	Student Affairs Director
Vacant .....	Financial Aid Director
Gabriel López .....	Student Accounts Director
Josué Hernández .....	Registrar
Luis A. Ortiz .....	Systems Administrator
Edwin G. Fernández .....	Marketing Coordinator
Yazmin Figueroa .....	Basics Skills Laboratory Technician
Vacant .....	Counselor
Ramón Rodríguez .....	Evening Coordinator
Jannissely Reyes .....	Tutoring Coordinator
Sara I. Rodríguez .....	Library Director
Hilda Torres .....	Placement Officer
Blanca González .....	Effectiveness Officer

## Online Division Administration

Manuel J. Meléndez .....	Vice President of Online División
José D. Martínez .....	Academic Affairs Dean
Sheila L. Ramos .....	Registrar Manager
Christian D. Vélez .....	Admissions Director
Lic. Willie Andrade .....	Professional Counselor
Odalys Vélez .....	Student Accounts Manager
Carmen I. Flores .....	Financial Aid Manager
Zoely M. Santiago .....	Librarian
Esther M. Morales .....	Career Services Manager

## IBC Technical Division – Bayamón Administration

Olvin Marrero .....	Executive Director
Giselle C. Hernández .....	Academic Director
Leslie A. Colón .....	Evening Coordinator
Herbert Luna .....	Study Hall
Rebeca Nieves .....	Admissions
Vacant .....	Placement
Genesis N. Vazquez .....	Retention
Paulette M. Torres .....	Retention
Jeannette Torres Cruz .....	Registrar
Vacant .....	Academic Counseling
Emmanuel Ortiz .....	Financial Aid
Marvelia Vega .....	Student Accounts

# Bayamón Region Faculty

## Campus Faculty

### Academic Administrative Staff

**Muñoz-Sánchez, Jahaira** – Nursing Program Director  
Maestría en Enfermería con Concentración en Médico Quirúrgico y Rol Educativo, NUC University Recinto de Ponce  
Bachillerato en Ciencias de Enfermería, División Online

**Delgado-Emmanuelli, Linsey J.** – Criminal Justice Program Coordinator  
Maestría en Justicia Criminal, Universidad Interamericana, Aguadilla  
Juris Doctor, En la Facultad de Derecho Eugenio Maria de Hostos Mayagüez

**Ortega-Cruz, Lisa M.** – General Education Program Director  
Maestría en Administración de Empresas, NUC University Recinto de Bayamón  
Bachillerato en Administras de Empresas con concentración en Contabilidad, Recinto UPR de Bayamón

**Fraticelli-Mercado, Lissette** – Health Sciences Program Director  
Doctorado en Medicina Dental, Ciencias Médicas UPR, Recinto Rio Piedras  
BS- Biología UPR Rio Piedra

**Rivera-Nieves. Maria De L.** – Business Administration and Technology Program Director  
Maestría en Recursos Humanos, Interamericana Recinto Metropolitana  
Bachillerato Gerencia en Interamericana Recinto Metropolitana

**Torres-Meléndez, Mariely** – Physical Terapy Assistant Program Institutional Director  
Maestría Salud Publica, en Escuela de Medicina en Ponce  
Bachillerato en Educación con concentración en Salud, Interamericana Recinto de Bayamón

### Faculty

**Redinger-Vega, Alda C.** – General Education Program  
Juris Doctor, Universidad Interamericana

**Cruz-Reyes, Ana F.** – General Education Program  
Maestría en Gerencia y Supervisión, Universidad Phoenix

Bachillerato en Matemáticas UPR Recinto de Rio Piedras

**Soto-Rodríguez, Ana L.** – Nursing Program  
Maestría en Enfermería con Concentración Cuidados Críticos y Rol Educativo y Administración, Universidad Metropolitana, Bayamón  
Bachillerato en Enfermería, Universidad Metropolitana, Bayamón

**Nieves-Vega, Angel V.** – Business Administration and Technology Program  
Doctorado en Especialista en Asuntos Comercial Global en la Universidad Alas Peruanas  
Maestría en Contabilidad en la Universidad Interamericana

**Ocasio-Lázaga, Carla** – Health Sciences Program  
Maestría en Currículo, American University, Bayamón  
Bachillerato en Biología, Universidad de Puerto Rico, Rio Piedras

**Romero-Jimenez, Carlos J.** – Nursing Program  
Doctorado en Tecnología Educativa y Educación a Distancia, Nova Southeastern University, San Juan  
Maestría en Enfermería Concentración en Educación, National University, Recinto Bayamón

**Figueroa-Santiago, Carmen G.** – Nursing Program  
Maestría en Enfermería con concentración en Manejo de Casos con Educación, Universidad Metropolinta, Bayamón  
Bachillerato en Enfermería, Caribbean University, Bayamón

**Emiliano-Ruiz, Christopher** – Health Sciences Program  
Doctorado en Odontología en la Universidad Pedro Henríquez Ureña Santo Domingo

**López-Rivera, Christian** – Nursing Program  
Maestría en Enfermería con Concentración en Médico Quirúrgico, National University, Recinto Bayamón  
Bachillerato en Enfermería, Dewey University, Hato Rey

**Torres-Coredro, Diana** – Nursing Program  
Doctorado en Educación, Universidad Iberoamerican, Maestría en Enfermería con Concentración en Educación, Universidad de Puerto Rico,

**Torres-Martinez, Enid** – Nursing Program

Maestría en Enfermería con Concentración en Gerontología, Caribbena University, Bayamón  
Bachillerato en Enfermería, Colegio Universitario de San Juan

**Irizarry-Cruz, Hector** – General Education Program  
Maestría en Gerencia, interamericana, Turabo  
Bachillerato en Matemática, Interamericana

**Vélez-Sánchez, Hector** – Business Administration and Technology Program  
Maestría en Administración de Tecnología en Universidad Phoenix  
Bachillerato en Gerencia General en la American University, Recinto de Bayamón

**Rosado-Colón, Hector R.** – Nursing Program  
Maestría en Enfermería con Salud Mental y Psiquiatría con rol Educativo, Dewey University, San Juan  
Bachillerato en Enfermería, Colegio Universitario en San Juan

**Dominguez-Vázquez, Idializ** – Nursing Program  
Maestría en Enfermería con Concentración Médico Quirúrgico y Educación, National University, Recinto Bayamón  
Bachillerato en Enfermería, National University, Recinto Bayamón

**González-Medina Javier O.** – Nursing Program  
Maestría en Enfermería con Concentración Salud Mental y Psiquiatría y Rol Educativo, Universidad de Puerto Rico, Ciencias Medicas  
Bachillerato en Enfermería, Universidad de Puerto Rico, Ciencias Medicas

**Torres-García, Jeannette** – Business Administration and Technology Program  
Maestría en Secretarial con Concentración en Artes en Educación Comercia, Universidad Interamericana  
Bachillerato en Secretarial con Concentración en Artes en Educación Comercial, Caribbean University

**Alejandro- Núñez, Jessica** – Nursing Program  
Maestría en Enfermería con Concentración Médico Quirúrgico y Rol Educativo, National University Recinto Bayamón  
Maestría en Educación con Liderazgo Educacional, National University, Recinto Bayamón

**Vega-Flores, Jose A.** – General Education Program

Doctorado en Filosofía y Letras con especialidad en Historia de Puerto Rico y Caribe, en Centro de Estudios Avanzados de Puerto Rico y el Caribe, San Juan  
Maestría Gerencia UMET Metropolitana

**Valcourt-Cruz, Jose A.** – Criminal Justice Program  
Juris Doctor, Universidad Interamericana, San Juan  
Bachillerato en Ciencias Sociales, Universidad de Puerto Rico, Rio Piedras

**Orengo-Ramirez, Jose I.** – Nursing Program  
Maestría en Enfermería con Salud Mental y Psiquiatría con rol Educativo, Universidad de Puerto Rico, Ciencias Médicas  
Bachillerato en Enfermería, Universidad de Puerto Rico, Ciencias Medicas

**Ortiz-Cintrón, Josué** – Health Sciences Program  
Doctorado en Ciencias de la Salud, Universidad Alas Peruanas  
Maestría en Salud Ambiental, Universidad de Puerto Rico, Ciencias Médicas

**Bonilla-Soto, Lourdes** – Nursing Program  
Maestría en Enfermería con Concentración en Administración, Comunidad, Maternidad y Pediatría con Rol Educativo y Universidad de Puerto Rico, Ciencias Medicas  
Bachillerato en Enfermería, Universidad Interamericana, Bayamón

**Pizarro-Jiménez, Luz C.** – Nursing Program  
Maestría en Enfermería en Practica Familiar Avanzada, Universidad del Turabo  
Bachillerato en Enfermería, Universidad de Puerto Rico, Ciencias Medicas

**Vargas-Gerena, Madeline** – Nursing Program  
Doctorado en Educación, Nova Southeastern University  
Maestría en Enfermería, Columbia Central University

**Cotto-Quiles, María** – Nursing Program  
Doctorado en Enfermería con Concentración en Administración, University of Brazil  
Doctorado en Enfermería con Concentración Plan de Estudios y Enseñanza de pediatria Neonatal, Caribbean University, Bayamón

**Rivera-Santiago, Maria M.** – General Education Program  
Maestría en Administración y Supervisión, Dowling College



Bachillerato en Biología Universidad Interamericana,  
Recinto de Bayamón

**Delgado-Cruz, Maritza I.** – Nursing Program  
Maestría en Enfermería con Concentración en Sala de  
Traumatología y Emergencias con Rol Educativo y  
Administrativo, Dewey University  
Bachillerato en Enfermería, John Dewey University

**Santiago-Rodríguez, Migdalia** – Nursing Program  
Maestría en Enfermería con Concentración en Infantil y  
Pediátrica, Universidad de Puerto Rico, Río Piedras  
Bachillerato en Enfermería, Colegio Tecnológico de  
Puerto Rico

**Albelo-Chico, Nayrobi** – Nursing Program  
Maestría en Enfermería con Concentración en Médico  
Quirúrgico con Rol Educativo, National University Recinto  
de Arecibo  
Bachillerato en Enfermería, National University Recinto  
de Arecibo

**Pérez-Burgos, Nelson L.** – Business Administration  
and Technology Program  
Maestría en Gerencia Tecnológica en Universidad  
Phoenix  
Bachillerato en Ingeniería Eléctrica Universidad de Puerto  
Rico, Recinto de Mayagüez

**Valencia-Rivera, Nilda** – Business Administration and  
Technology Program  
Maestría en Secretarial Educación Comercial, Universidad  
Interamericana  
Bachillerato en Secretarial, Universidad de Puerto Rico

**Agosto-Rivera, Nilsa** – Nursing Program  
Maestría en Enfermería con Concentración en Adultos y  
Mayores con Rol Educativo, Central University Caguas  
Bachillerato en Enfermería, Universidad Sagrado  
Corazón, Santurce

**Rivas-García, Pedro** – General Education Program

## Online Division Faculty

### *Academic Administrative Staff*

**Caraballo-Vega, Vanessa** – Health Sciences Program  
Director  
Doctorate, Dental Medicine, UPR, Medical Sciences  
Campus  
Bachelor, Natural Science in Biology, Pontifical Catholic  
University of PR, Arecibo Campus

**Díaz-Vázquez, Ferdinand** – Business Administration  
Program Director  
Doctorate, Education in Organizational Leadership, Nova  
Southeastern University, Davie Florida  
Master, Business Administration Degree in Human  
Resources Management, Ana G. Mendez University SJ  
Campus  
Bachelor, Business Administration Degree Human  
Resources Management, Inter American University of  
PR, SJ Campus

**González-Morales, Milisha** – Business Administration  
Program Coordinator  
Master, Business Administration, Phoenix University  
Bachelor, Administration, Puerto Rico University

**Morales-Velázquez, Karilyn** – Nursing Program  
Coordinator  
Doctorate, Educational Technology and Distance  
Education, NOVA Southeastern University  
Master, Nursing Science as a specialist in Family &  
Community, Medical Sciences Campus  
Bachelor, Nursing Science, Medical Science Campus

**Rivera-Solla, Wilma R.** – Nursing Program Director  
Doctorate, Instructional Technology Education and  
Distance, Nova Southeastern University, Fort  
Lauderdale, FL  
Master, Science of Nursing, Medical Sciences UPR  
Campus  
Bachelor, Science of Nursing, Medical Sciences UPR  
Campus

**Rodríguez-Díaz, Omar** – Technology Program  
Coordinator  
Master, Science/Administration of Networks and  
Telecommunications, University of Turabo, Gurabo PR  
Bachelor, Business Administration/Management,  
University of Puerto Rico, Humacao, PR

**Sandoval-Aponte, Rafael** – Graduate Education  
Program Director  
Doctorate, Business Administration, Andragogy  
University, USA  
Doctorate, Leadership Education, Turabo University,  
Gurabo PR  
Master, Digital Marketing, Isabel I De Castilla University,  
Barcelona, Spain  
Master, Business Administration, Isabel I De Castilla  
University, Barcelona, Spain  
Master, Criminal Justice, Caribbean University, Bayamón  
PR  
Bachelor, Communications with Specialty in Journalism

and Minor in Stage Projection, Sagrado Corazón University, Santurce PR

**Troche-Flores, Lille I.** – General Education Program Director  
Doctorate, Education, University of PR, Rio Piedras  
Master, Education, University of Phoenix, PR Campus  
Master, Public Health Education, Medical Sciences Campus, PR  
Bachelor, Science, University of PR, Mayaguez Campus

### **Faculty**

**Carrión-Matos, Brenda Liz** – Enfermería  
Master's, Science in Nursing Role in Education, Medical Science Campus, University of PR, Rio Piedras  
Bachelor, Science in Nursing, University of PR, Arecibo

**Colón-Amaro, Milagros** – Enfermería  
Master, Nursing Sciences, University of PR, Medical Sciences Campus, Rio Piedras  
Bachelor, Science of Nursing, University of PR, Medical Sciences Campus Rio Piedras

**Deliz-Cardé, Wilfredo** – Administración de Empresas  
Master's, General, University of Puerto Rico, Rio Piedras, PR  
Bachelor's, Accounting, University of Puerto Rico, Rio Piedras, PR

**Hernández-Ortiz, José R.** – Tecnología  
Master, Information System, EDP College of PR  
Bachelor, Computer Programming, EDP College of PR

**Llerandi-Flores, Lorena** – Educación General  
EdD, Leadership in Educational Organizations, University of Puerto Rico, Rio Piedras, PR  
Master's, Industrial/Organizational Psychology, Pontifical Catholic University of PR, Ponce Campus  
Bachelor's, Arts in Social Sciences Major in Psychology, University of Puerto Rico, Rio Piedras, PR

**López-Gúzman, Keila** – Enfermería  
Doctorate, Leadership and Instruction, Interamerican University of Puerto Rico, Ponce Campus  
Master's, Science of Nursing, Interamerican University of Puerto Rico, Arecibo Campus  
Bachelor's, Science of Nursing, University of Puerto Rico, Bayamón Campus

**Maldonado-Rios, Myrna J.** – Educación General  
Master's, Education, Inter Americana, Arecibo, PR

Bachelor's, Education, University of Puerto Rico, Rio Piedras, PR

**Miranda-Rosario, Solangel** – Educación General  
Doctorate, Guidance and Counseling, University of Puerto Rico, Rio Piedras Campus  
Master, Guidance and Counseling, University of Turabo, Gurabo, PR  
Bachelor, Arts in Secondary Education, Spanish, University of PR, Rio Piedras Campus

**Navarro-Pizarro, Rafael** – Administración de Empresas  
Doctorate, Business Administration, Keiser University, Florida, USA  
Master's, Accounting, Caribbean University, Carolina, PR  
Bachelor's, Business Education, University of Puerto Rico, Rio Piedras, PR

**Rivera-Garcia, Juan** – Educación General  
EdD, Education (Major in Mathematics & Chemistry), Pontificia Universidad Católica de PR  
Master's, Education (Major in Mathematics), University of Phoenix, Guaynabo, PR  
Bachelor's, Business Education, University of Puerto Rico, Rio Piedras, PR

**Rivera Jiménez, Cinthia** – Enfermería  
Doctorate, Leadership Distance Education, Interamerican University, Ponce Campus  
Master, Critical Care, Interamerican University, Arecibo Campus  
Bachelor, Science of Nursing, Interamerican, Arecibo Campus

**Rivera-López, Angiemarie** – Educación Graduada  
Doctorate, Education, Berne University, St. Kitts  
Master, Education, University of Phoenix, San Juan Campus  
Bachelor, Arts, Liberal Arts, College of Notre Dame, Maryland, Baltimore, MD

**Romero-Pérez, Alice** – Enfermería  
Doctorate, Education, Interamerican University, Ponce Campus  
Master, Medical Surgical Medicine, Interamerican University, Arecibo Campus  
Bachelor, Science of Nursing, University of PR, Arecibo Campus

**Rosa-Rivera, Migdalia** – Enfermería  
Master, Science of Nursing, University of PR, Medical Sciences Campus

Bachelor, Science of Nursing, Interamerican University of PR, Metropolitan Campus

**Sánchez-Vega, Alexis** – Justicia Criminal  
Juris Doctor, Law, University of PR, School of Law  
Bachelor, Business Administration, Turabo University,  
Gurabo Campus

**Sánchez-Vega, Zoraya** – Justicia Criminal  
Master, Arts in Criminal Investigation, Interamerican  
University of PR, Metropolitan Campus  
Bachelor, Arts in Criminal Justice, Interamerican  
University of PR, Arecibo Campus

**Soto-González, Gladys D.** – Enfermería  
Master, Science of Nursing, University of PR, Medical  
Sciences Campus  
Bachelor, Science of Nursing, University of PR, Arecibo  
Campus

**Torres-Acevedo, Jesús** – Administración de Empresas  
Master's, Accounting, University of Phoenix, Guaynabo,  
PR  
Bachelor's, Financial Management, University of Puerto  
Rico, Arecibo, PR

**Velilla-Garcia, Carmen** – Administración de Empresas  
Doctorate, Entrepreneur Development and Management  
in Labor Relation and International Business, Inter  
Americana Recinto de San Germán  
Master, Business Administration in Human Resources,  
Inter Americana Recinto de San Germán  
Bachelor, Business Administration in Human Resources,  
Universidad de Puerto Rico Recinto de Rio Piedras

## **IBC Technical Division – Bayamón Faculty**

### ***Academic Administrative Staff***

**Parrilla Guzmán, Daisy** – Senior Master Lead Artes  
Culinarias  
Grado Asociado en Cocina Local e Internacional,  
Instituto de Banca y Comercio, Hato Rey.

**Garcia Toledo, Glenda** – Master Lead Beauty Programs  
Diploma en Cosmetología, Marugie Institute  
Diploma en Tecnología de Uñas, World Training  
Academy

## ***Faculty***

**Algarín Hernández, Niurka** – Asistente de Maestro  
Preescolar  
Bachillerato en Educación con concentración en  
Educación Preescolar, National University College

**Algarín Pérez, Víctor** – Técnico de Emergencias  
Médicas-Básico  
Grado Asociado en Emergencias Médicas Paramédico,  
EDP College Puerto Rico

**Amaro Santiago, Yislem** – Artes Culinarias  
Diploma en Cocina Local e Intenacional, NUC University  
división Técnica

**Aponte Burgos, María E.** – Terapeuta de Masaje  
Profesional  
Diploma en Terapeuta de Masaje y Ciencias Corporales,  
Therapeutic Massage & Asian Body Work, Instituto  
Professional

**Berríos Ríos, Eliud** – Técnico de Plomería  
Certificado en Plomería (Maestro Plomero), Escuela  
Superior de Humacao

**Cabrera Lorenzana, José A.** - Artes Culinarias  
Certificado de Artes Culinarias , Universal Career  
Counseling Center

**Cabrera Merced, Sheila** - Asistente de Maestro  
Preescolar  
Bachillerato en Artes: Educación Preescolar y Elemental,  
Universidad de Puerto Rico

**Caraballo Berrios, Edgardo** – Gerencia Funeraria y  
Embalsamamiento  
Diploma en Embalsamamiento y Director funerario,  
Escuela Metropolitana Miguel Such.

**Cintrón Olivo, Samuel** – Mixología/Bartending  
Diploma en Mixología/Bartending, NUC University  
División Técnica IBC.

**Cintrón Sanchez, Ketsyann** – Enfermería Práctica con  
EKG  
Maestría en Administración de Empresas con Recursos  
Humanos, NUC University  
Bachillerato en Ciencias de Enfermería, NUC University

**Class Garcia, Francisco** – Técnico de Reparación de  
Computadoras

Especialista en Computadora, Universidad Politécnica de P.R

**Crespo Serrano, Zulley**- Tecnología de Uñas  
Diploma Tecnología de uñas ,NUC University División Técnica IBC Bayamón:

**Cruz Hernández, Lizbeth** – Tecnología de Uñas  
Diploma en Tecnología de Uñas , Fontecha Institute San Juan

**Cruz Rivera, Carmen** – Estética  
Diploma en Cosmetología , Colegio Tecnológico de Puerto Rico, Bayamón  
Diploma en Estética, Colegio Tecnológico de Puerto Rico, Bayamón

**Díaz Nieves, Carmen** – Estética  
Diploma en Estética, Caribbean University

**Durán Lopez, Lissette** – Cosmetología  
Diploma en Cosmetología, NUC University División Técnica IBC

**Feliciano Rivera, Orlando** – Electricidad con Energía Renovable / Refrigeración y Aire Acondicionado  
Diploma en Electricidad con Energía Renovable, NUC University División Técnica IBC  
Diploma en Refrigeración y Aire Acondicionado, NUC University División Técnica IBC

**Figuroa Fernández, Yamir** - Refrigeración y Aire Acondicionado  
Diploma en Refrigeración y Aire Acondicionado, Liceo de Arte y Tecnología

**Franco Cotto, Wilfredo** \_Gerencia Funeraria y Embalsamamiento  
Diploma en Técnico Embalsamador y Asistente Funerario, Antilles College of Health

**Gil Rivera, Naleisha** – Mixology/Bartending  
Bartending, NUC University IBC Institute Bayamón

**González González, Hector X.** – Electricidad con Energía Renovable  
Diploma en Electricidad y Electrónica Industrial con PLC, Professional Technical Institute

**González Ramos, Juan** – Turismo y Hoteles  
Maestría en Educación, Western Maryland College  
Diploma en Guía Turístico, Escuela Hotelera

**Hernández Fuentes, Sheliz** - Estética  
Diploma en Estética, NUC University División Técnica IBC

**Huertas Rivera. Luis A.** – GA en Técnico de Emergencias Médicas Paramédico  
Bachillerato en Ciencias sociales, Centro de Estudios Multidisciplinarios de P.R  
Grado Asociado en Técnico de Emergencias Médicas, Centro de Estudios Multidisciplinario de P.R  
Grado Asociado en Enfermería, Colegio Universitario de San Juan  
Diploma en Técnico de Emergencias Médicas, Centro de Estudios Multidisciplinarios de P.R

**López Betancourt, Ricardo** – Barbería y Estilismo  
Diploma en Barbería y Estilismo, American Business College

**López Colón, Ainex** - Estética  
Diploma en Estética y Maquillaje, Myrangel Beauty Institute

**López Martínez, Javier** – Refrigeración y Aire Acondicionado con Inverters  
Técnico de Refrigeración y Aire Acondicionado, Colegio Técnico de Electricidad

**López Morales, Manuel** – Panadería y Repostería Internacional  
Diploma en Repostería Internacional , Universal Career Community College

**López Ramirez, Ernesto** – Técnico de Construcción  
Diploma Técnico de Refrigeración y Aire Acondicionado y Técnico Plomero, NUC University División Técnica IBC Bayamón

**Malavé Miranda, Ivette** – Asistente de Maestro Preescolar  
Maestría en educación: Educación Pre-Escolar

**Maldonado Martínez, Yanira** – Asistente Administrativo con Facturación Médica  
Maestría en Administración de Empresas Business Administración, Universidad, Universidad Metropolitana  
Bachillerato en sistemas de Información, Central de Bayamón

**Maldonado Santiago, Luz** – Cosmetología  
Diploma en Cosmetología, Instituto Vocacional Curelza

**Mangual Pagán, Paola Z.** – Estética  
Diploma Estética, NUC University División Técnica IBC  
Bayamón

**Narváez Fuentes, Clara** – Panadería y Repostería Internacional  
Panadería y Repostería Internacional, Instituto de Banca y Comercio, Manatí

**Negron Velázquez, Nereida** – Artes Culinarias  
Diploma en Artes Culinarias, NUC University División Técnica IBC

**Ocasio Almodovar, Miriam** – Tecnología de Uñas  
Técnica de Uñas, American Business College

**Oliveras Rojas, Jose** – Electricidad con Energía Renovable  
Diploma en Electrónica Digital, Instituto de Educación Universal

**Ortiz Angulo, José J.** – Técnico de Construcción  
Cuarto año del Departamento de Educación

**Pesante Rohena, Genghis** – Diseño Gráfico  
Bachillerato en Artes, Diseño Gráfico, Universidad de Puerto Rico, Carolina.

**Puig Berrios, Stephanie** – Tecnología de Uñas  
Diploma en Tecnología de uñas, NUC University División Técnica IBC

**Rivera Colón, José I.** – Técnico de Plomería  
Diploma en Plomería, Escuela Superior Dr. Santiago Veve Calzada

**Reyes Pizarro, Angel** – Artes Culinarias  
Diploma en Cocina Local e Internacional, Instituto de Banca y comercio San Juan

**Rivera Ayala, Iris** – Técnico de Entrenamiento y Acondicionamiento Físico  
Diploma en Técnico de Entrenamiento y Acondicionamiento Físico, NUC University División Técnica

**Rivera Rodriguez, Iris** – Panadería y Repostería Internacional  
Diploma en Panadería y Repostería Internacional, NUC University División Técnica IBC

**Rodríguez Falcón, Mayra I.** – Asistente Administrativo con Facturación Médica

Universidad Interamericana, Barranquitas: Bachillerato en Administración de Empresas, Manejo computarizado en sistemas de Información

**Rodriguez Mercado, Ann** – Asistente Administrativo con Facturación Médica  
Maestría en Administración de Empresas con concentración en Recursos Humanos, NUC University Online  
Grado Asociado en Facturación Médica, Millenium Professional Arts Institute

**Rodriguez Serrano, Ismael** – Electricidad con Energía Renovable / Refrigeración y Aire Acondicionado  
Diploma en Electricidad, Instituto de Educación Universal  
Diploma en Refrigeración y Aire Acondicionado, Liceo de Arte y Tecnología

**Rolón Torres, Wanda** – Barbería y Estilismo  
Diploma en Barbería y Estilismo, NUC University División Técnica IBC

**Romero López, Yadeli** – Enfermería Práctica con EKG  
Bachillerato en Ciencias de Enfermería, Universidad de Interamericana de P.R  
Grado Asociado en Ciencias Aplicadas, Universidad Interamericana de P.R

**Romero Yambó, José A.** – Terapeuta de Masaje Profesional  
Antilles Schools of Technical Careers, San Juan: Diploma en Terapeuta de Masaje

**Rosado Reyes, Lissette** – Cosmetología  
Diploma en Cosmetología y Estilismo, Puerto Rico Barber College

**Ruiz Rosado, Jesus** – Cosmetología  
Diploma en Cosmetología, National Fashion & Beauty College

**Ruiz Vera, Luis O.** – Diseño Gráfico  
Bachillerato en Diseño Gráfico Digital con animación computarizada, Atlantic University College

**Salas Ortiz, Nelson** – Barbería y Estilismo  
Diploma en Barbería, Modern Hairstyling Institute

**Santiago Camacho, Karla** – Cosmetología  
Diploma en cosmetología, NUC University División Técnica IBC

**Santiago Medina, Melanie** – Estética  
Estética Profesional, Caribbean University

**Talavera Matos, Carmen.** – Inglés  
Maestría en Artes, Phoenix University, Guaynabo  
Bachillerato en artes, inglés como Segundo Idioma,  
Caribbean University, Bayamón

**Toledo Rosario, Rafael L.** – Entrenamiento y  
Acondicionamiento Físico  
Maestría en Promoción de la Salud, Universidad del  
Turabo

**Torres Albizu, Martha** – Estética  
Diploma en Estética, NUC University IBC Institute  
Bayamon

**Torres Ortíz, Javier** – Diseño Gráfico  
Bachillerato en Diseño Gráfico, Universidad del Turabo

**Torres Pizzaro, Myrta** – Estilismo y Diseño Avanzado /  
Cosmetología  
Diploma en Cosmetología / cosmetología y Diseño  
Avanzado, Marugie Institute, Bayamón

**Vaello Bermudez, Yiselle** – Cosmetología  
Diploma en Cosmetología, Marugie Beauty & Technical  
College

**Vega Roque, Ramón** – Técnico de Reparación de  
Computadoras  
Universidad Interamericana: Bachillerato en Reparación  
de Sistema Informático

# Caguas Region Administration & Faculty

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## Campus Administration

Dr. Marisel Pagán .....	Chancellor
Solmarie Martínez .....	Academic Affairs Dean
José Ayala .....	Operations Director
Carmen Dávila .....	Admissions & Marketing Director
Yanitza García .....	Student Accounts Director
Joadma Huguet .....	Financial Aid Director
Suzette Rubio .....	Student Affairs Director
Katherine Solis .....	Marketing Coordinator
Daisy Resto .....	Evening Coordinator
Adamaris Alicea .....	Admissions Coordinator
Axel Calderón .....	High School Coordinator
Eduardo Vera Rodríguez .....	Tutoring Coordinator
Nicole Rodríguez .....	Placement Officer
Gloria Santiago .....	Professional Counselor
María de los A. Torres .....	Professional Counselor
Emsey Tirado .....	Basics Skills Laboratory Technician
Waleska Vargas .....	Library Director
Mariel González .....	Registrar
Alexis Martínez .....	Systems Administrator
Nicole Pabón .....	Effectiveness

## IBC Technical Division – Caguas Administration

Carlos E. Lugo .....	Executive Director
Lilliam Rivera .....	Academic Director
Héctor Castro .....	Evening Coordinator
Yomarilly Meléndez .....	Library/Study Hall
Luz Patrón .....	Admissions
Zaiomy López .....	Placement
Gamalyz Díaz .....	Retention
Karla Rivera .....	Registrar
Evelyn Cotto .....	Academic Counseling
Nydia Cruz .....	Financial Aid
Solmarie Martínez .....	Student Accounts

## IBC Technical Division – Guayama Administration

Betsy Alicea .....	Executive Director
José M. Alverio .....	Academic Director
Lisandra Rodríguez .....	Evening Coordinator
Yaritza Diaz .....	Study Hall
Marines Martínez .....	Admissions
Gladys Figueroa .....	Placement
Denisse Rivera .....	Retention
Vacant .....	Registrar
Norma Avilés .....	Academic Counseling
Emma Martínez .....	Financial Aid
Paola González .....	Student Accounts
Nicole Moreno .....	Student Affairs



# Caguas Region Faculty

## Campus Faculty

### *Academic Administrative Staff*

**Castro-Martínez, Edwin** – General Education Coordinator  
MBA, Universidad del Turabo  
BA, International Institute of the Americas

**Cruz-Rivera, Olga** – Health Sciences Coordinator  
MBA-HSO, Columbia Centro Universitario  
BS, Inter American University of Puerto Rico  
AD, National University College

**Duprey-López, Helen** – Criminal Justice Coordinator  
MBA, Inter American University of Puerto Rico  
BA, Inter American University of Puerto Rico

**Muñoz-Córdova, Lourdes** – Business Administration Coordinator  
MBA, Universidad del Turabo  
BA, Universidad del Turabo

**Pérez-Gómez, Ada I.** – Distance Education Coordinator  
JD, Pontifical Catholic University of Puerto Rico  
MA, Inter American University of Puerto Rico  
BA, Inter American University of Puerto Rico

**Torres-Hernández, Myrna** – Nursing Program Director  
MSN, University of Puerto Rico  
BSN, Pontifical Catholic University of Puerto Rico

### *Faculty*

**Adorno-Colón, Michelle** – Nursing  
MSN, Dewey University  
BSN, Dewey University

**Cardona-Ortiz, Virjen** – Nursing  
MSN, Columbia Central University  
BSN, Columbia Central University  
ADN, Columbia Central University

**Cecilio-Hernández, Stephanie** – Clinical Liasion  
MSN, National University College  
BSN, Columbia Central University

**De Jesús-Ramos, Raquel** – Nursing  
MSN, Columbia Central University  
BSN, University of Puerto Rico

**Delgado-Ramos, Marisel** – Nursing  
MSN, Columbia Central University  
BSN, University of Puerto Rico

**Galarza-Flores, María** – Nursing  
MSN, Columbia Central University  
BSN, University of Puerto Rico

**González-Morales, Migdalia** – Nursing  
MSN, Columbia Central University  
BSN, University of Puerto Rico

**Llera-Carrasquillo, Liz** – Nursing  
MSN, National University College  
BSN, University of Puerto Rico

**Ramos-López, Elisabet** – Nursing  
Ed.D., NOVA Southeastern University  
MSN, Columbia Central University  
BSN, Columbia Central University

**Richardson-Casiano, Linda** – Nursing  
MSN, Columbia Central University  
BSN, Columbia Central University

**Rivera-Alejandro, Elsa** – Nursing  
MSN, National University College  
BSN, Inter American University of Puerto Rico

**Rivera-Vázquez, Yeidy** – Criminal Justice  
Ed.D., Inter American University of Puerto Rico  
MA, Inter American University of Puerto Rico  
BA, University of Puerto Rico

**Román-Gómez, Nínive** – Clinical Liasion  
Ed.D., NOVA Southeastern University  
MSN, Columbia Central University  
BSN, Columbia Central University  
ADN, Columbia Central University

**Torres-Cádiz, Ideliza** – Nursing  
Ed.D., NOVA Southeastern University  
MSN, Columbia Central University  
BSN, Inter American University of Puerto Rico

## IBC Technical Division – Caguas Faculty

### *Academic Administrative Staff*

**Bourdón Meléndez, Alexandra** – Senior Master Lead  
Culinary Arts School  
B.Sc., Culinary Management Ana G. Mendéz University

**Cora Morales, Carmen I.** – Lead Instructor Associate  
Degree Emergency Medical Technician-Paramedic  
Bachelors, Criminal Justice, National University College  
Diploma, Emergency Medical Technician, Instituto de Banca y Comercio

**Cintrón Castro, Shirley A.** – Master Lead Beauty School  
Diploma, Nail Technician, Modern Hairstyling Institute  
Diploma, Cosmetology, Instituto de Banca y Comercio

**Cruz Montañez, Denise M.** – Lead Instructor  
Preschool Teacher Assistant  
Bachelors, Education, Caribbean University

**Echevarría Cotto, Waleska** – Lead Instructor  
Advanced Design and Styling  
Diploma, Advanced Cosmetology, Instituto de Banca y Comercio  
Diploma, Basic Cosmetology, Instituto de Banca y Comercio

**Escalera Avilés, Alfredo** – Lead Instructor  
Construction Technician  
Bachelors, Secondary Ed. Vocational Education, Universidad de Puerto Rico

**Flores Rolón, Dyandra J.** - Lead Instructor Aesthetic  
Diploma, Aesthetic, NUC University División Técnica

**Fontanez Cruz, Eduardo M.** – Lead Instructor  
Training and Fitness Technician  
M.Ed., Exercise Science, Universidad de Puerto Rico  
B.Sc., Athletic Therapy, Universidad de Puerto Rico

**Marcano Valdés, Raúl** – Lead Instructor Refrigeration and Air Conditioners Inverter  
Bachelors, Secondary Ed. History, Universidad del Turabo  
Certificate, Vocational Education, Universidad de Puerto Rico

**Méndez Ortega, Antonia** – Lead Instructor  
Professional Massage Therapist

Diploma, Professional Massage Therapist, Ponce Paramedical College

**Montes Rivera, José O.** - Lead Instructor Graphic Design  
Masters, Communications, Universidad del Turabo  
Bachelors, Graphic Design, Universidad del Turabo

**Rodríguez Cardona, María T.** – Lead Instructor  
Tourism and Hotels  
Bachelors, Tourism, Universidad del Sagrado Corazón

**Rodríguez Del Valle, Carmen M.** - Lead Instructor  
Cosmetology  
Diploma, Cosmetology, Rogie's School of Beauty Culture

**Sánchez Reyes, Lydiana** – Lead Instructor  
Mixology/Bartending  
Diploma, Bartending,

**Santana Monserrate, Wanda I.** - Lead Instructor  
Administrative Assistant with Medical Billing  
M.Ed., Educational Administration, Universidad del Turabo  
Bachelors, Secretarial Sciences, Universidad de Puerto Rico

**Santiago Ortiz, Yaina** – Lead Instructor Nail Technology  
Diploma, Nail Technology, NUC University División Técnica

**Soto Soto, Denisse M.** – Lead Instructor Barbering and Styling  
Diploma, Aesthetic, NUC University División Técnica  
Diploma, Barbering and Styling, NUC University División Técnica

**Vázquez Cotto, Josué I.** - Lead Instructor  
International Bakery and Pastry  
Diploma, International Bakery and Pastry, Instituto de Banca y Comercio

### *Faculty*

**Adams Matias, Nelson** – Culinary Arts  
Diploma, Regional and International Cuisine, Instituto de Banca y Comercio

**Avila Alfaro, Agathalee** - Beauty  
Diploma, Advanced Cosmetology, Century College

Diploma, Basic Cosmetology, Instituto de Banca y Comercio

**Bracero Rosario, Ángel L.** – Culinary Arts  
Diploma, Regional and International Cuisine, Instituto de Banca y Comercio

**Castillo Colón, Norma G.** - General Education  
Bachelors, Business Administration, Universidad de Puerto Rico

**Castro Aguayo, María de L.** - General Education  
M.Ed., Curriculum and Teaching, Universidad del Turabo  
Bachelors, Science and Math, Colegio Universitario del Turabo

**Cruz Colón, Wanda** - Beauty  
Diploma, Barbering and Hairstyling, Abbynell Beauty and Technical Institute  
Diploma, Basic Cosmetology, Abbynell Beauty and Technical Institute

**Flores Santiago, Fayska I.** – Beauty  
Diploma, Aesthetics and Makeup, MyrAngel Beauty Institute

**Galván Sánchez, Anselmo** – Culinary Arts  
Diploma, Regional and International Cuisine, Instituto de Banca y Comercio

**González Rivera, Jonathan** – Art and Technology  
Bachelors, Digital Graphic Design, Atlantic University College  
Associate Degree, Digital Graphic Design, Atlantic University College

**Guzmán Torres, Vanessa** - Administration and Informatics  
Masters, Business Education, Universidad Interamericana de Puerto Rico  
Bachelors, Office Systems, Universidad de Puerto Rico

**López Ortiz, Alejandrino** – Technicians  
Diploma, Refrigeration and Air Conditioning, NUC University División Técnica

**López Ramírez, Geraldo** – Technicians  
Diploma, Electricity, Instituto de Banca y Comercio

**Marcano García, Kamila** – Beauty  
Diploma, Nail Technology, Instituto de Banca y Comercio

**Márquez Hernández, Marcos** – Technicians  
Diploma, Refrigeration and Air Conditioning, Liceo de Arte y Tecnología

**Martin Rolón, Patricia** – Culinary Arts  
Diploma, Culinary Arts Specialist, Escuela Hotelera de San Juan

**Martínez Centeno, Eva R.** - Beauty  
Diploma, Barbering and Hairstyling, Instituto de Banca y Comercio

**Medina Cruz, Reinaldo** – Technicians  
Associate Degree, Electrical Technology, Huertas Junior College

**Miranda Rodríguez, Yolanda** – Beauty  
Diploma, Advance Hairstyling and Design, Instituto de Banca y Comercio  
Diploma, Cosmetology, Instituto de Banca y Comercio

**Muler Rodríguez, Rafael** – Technicians  
Bachelors, Secondary Education in Social Sciences, Colegio Universitario del Turabo  
Diploma, Plumbing, Esc. Superior Vocacional República de Costa Rica

**Ortiz García, Yanelba** – Health  
Diploma, Professional Massage Therapist, Antilles College of Health

**Pacheco Santiago, Ilik** – Culinary Arts  
Bachelors, Business Administration, Universidad del Turabo  
Diploma, Culinary Arts Specialist, Escuela Hotelera de San Juan

**Rivera Cartagena, Maritel** – Culinary Arts  
Diploma, International Bakery and Pastry, Instituto de Banca y Comercio

**Rodríguez de León, Isa M.** – Beauty  
Diploma, Aesthetics, Rogie's School of Beauty Culture

**Velázquez Rodríguez, Reynaldo** – Technicians  
Diploma, Refrigeration and Air Conditioning, NUC University División Técnica

## IBC Technical Division – Guayama Faculty

### *Academic Administrative Staff*

**Alverio Collazo, José** – Lead Instructor Training and Conditioning Technician  
Master Degree, Education Teaching Physical Education, Ana G. Méndez University

**Amaro Tirado, Sol** – Lead Instructor Dental Assistant with Expanded Functions  
Diploma, Expanded Functions, Huertas Junior College  
Diploma, Dental Assisting, 2006, Institute of Banking and Commerce

**Esparra Rosario, Solmarie** – Lead Instructor Cosmetology  
Diploma in Advanced Styling, NUC University  
Diploma in Cosmetology, NUC University

**García Ferrer, Saray** – Lead Instructor Barbershop and Styling  
Diploma, Advanced Styling, Emma's Beauty Academy  
Diploma, Barber, Emma's Beauty Academy

**González Avezuela, Leticia** – Lead Instructor Professional Massage Therapist  
Diploma, Professional Massage Therapist, National University College

**Harris Mauraás, Shirley** – Lead Instructor Mixology/Bartending  
Diploma, Bartending, NUC University  
Diploma, International and Regional Cuisine, NUC University  
Diploma, International Baking and Pastry, NUC University

**Morales Rivera, Ixia** – Lead Instructor Styling and Advanced Design  
Diploma, Advanced Style and Design, Serbia's Technical College Puerto Rico

**Mújica Santiago, Javier** – Lead Instructor International Bakery and Pastry  
Diploma, International Pastry and Baking, NUC University  
Diploma, Regional and International Cuisine, NUC University

**Nuñez Quiñones, Victor M.** – Lead Instructor Master Barbershop  
Diploma, Barbershop, Emma's Beauty Academy

**Ortiz, Díaz, Iratxell** – Cafeteria Profesor  
Associate, Local and International Cuisine, National University College

**Ramos Torres, Marta** – Lead Instructor Preschool Teacher Assistant  
Bachelor's Degree, Elementary Education, Pontifical Catholic University of Puerto Rico

**Rodríguez Crespo, Xiomara** – Senior Master Lead Culinary Arts  
Associate, Local and International Cuisine, National University College  
Diploma, Local and International Cuisine, Institute of Banking and Commerce

**Rodríguez Cruz, Emma** – Lead Instructor Esthetic  
Diploma, Esthetic, Neo-Esthetique European Institute

**Rodríguez Delgado, Manuel** – Lead Instructor Electricity with Renewable Energy  
Diploma, Electricity, Institute of Banking and Commerce

**Rodríguez Pérez, Pedro** – Lead Instructor Refrigeration and Air Conditioning with Inverters  
Diploma, Electricity with Renewable Energy, National University College  
Diploma, Refrigeration and Air Conditioners, Institute of Banking and Commerce

**Santiago Sánchez, Nilmarie** – Lead Instructor Nail Technology  
Diploma, Nail Technology, Institute of Banking and Commerce

**Vázquez Alvalle, Luis A.** – Lead Instructor Construction Technician  
Bachelor's Degree, Special Education, Interamerican University of Puerto Rico  
Certificate, Vocational Education, University of Turabo

### *Faculty*

**Aquiles Ortiz, Brenda** – Preschool Teacher Assistant  
Bachelor's Degree, Early Childhood Elem LVL K3, Interamerican University of Puerto Rico  
Bachelor's Degree, Office System Administration, Interamerican University of Puerto Rico

**Borrero Bristol, Leslie Ann**

Bachelor's Degree, Office System Administration,  
University of Puerto Rico

**Castro Colón, Fernando** – Computer and Network  
Repair Technician

Bachelor's Degree, Computer Science, Interamerican  
University of Puerto Rico

**Clausell Fernández, Jazmin** – International Bakery  
and Pastry

Diploma, International Pastry and Baking, NUC  
University

**Delgado Martínez, John L.** – Construction Technician

Diploma, General Education, 2019, ECEDAO-Eugenio  
Guerra Cruz  
Certificate, Occupational Safety and Health, Department  
of Housing

**Figueroa Reyes, Joel** – Culinary Arts

Diploma, Culinary Arts Specialist, Hotel School of San  
Juan

**Figueroa Villafañe, Wilfredo** – Plumbing Technician

Diploma, Plumbing, Ramón Avila Vocational School

**García Ortiz, Marylis** – English

Master Degree, English (Second language),  
Interamerican University of Puerto Rico  
Bachelor's Degree, English, University of Puerto Rico

**Guzmán Díaz, Katia** – Practical Nursing with EKG

Bachelor's Degree, Nursing, National University College

**Hernández Vicenete, Kerby** – Electricity with  
Renewable Energy

Associate Degree, Electrical Engineering, Technological  
Institute of Puerto Rico

**Jiménez Vélez, Evelyn** – Practical Nursing with EKG

Master Degree, Nursing, Interamerican University of  
Puerto Rico

**López Ortiz, Claribel** – Administrative Assistant with  
Medical Billing

Bachelor's Degree, Office System, Interamerican  
University of Puerto Rico

**Mateo Cartagena, Joan** – Cosmetology

Diploma, Nail Technology, National University College  
Diploma, Advanced Styling, Institute of Banking and  
Commerce

Diploma, Cosmetology, Institute of Banking and  
Commerce

**Meléndez Vega, Stephanie** – Nail Technology

Diploma, Nail Technology, Serbia's Technical College  
Puerto Rico

**Ortiz Colón, Luis E.** – Refrigeration and Air  
Conditioning with Inverters

Diploma, Refrigeration and Air Conditioners, Institute of  
Banking and Commerce

**Ortiz, Zoraida** – Administrative Assistant with Medical  
Billing

Bachelor's Degree, Business Administration in Executive  
Secretary, Pontifical Catholic University of Puerto Rico

**Pagán Santiago, Rafael** – Barbershop and Styling

Diploma, Barbershop, Maria Socorro Lacot Vocational  
School

**Rafaela Balentina, Charlton** – Training and  
Conditioning Technician

Master, Ed Phys Ed Sport Train Performance,  
Interamerican University of Puerto Rico

**Rámirez Mateo, Francarlos** – Styling and Advanced  
Design

Diploma, Advanced Styling, National University College  
Diploma, Cosmetology, National University College

**Ramos Torres, Larry E.** – Barbershop and Styling

Diploma, Barbershop, Serbia's Technical College Puerto  
Rico

**Reyes Gúzman, Ginnette** – Administrative Assistant  
with Medical Billing

Master, Business Education in Office Systems, Pontifical  
Catholic University of Puerto Rico

**Rivera Ortiz, Delis** – Preschool Teacher Assistant

Bachelor's Degree, Early Childhood Preschool LVL,  
Interamerican University of Puerto Rico

**Rodríguez Ayabarreno, Tamara** – Professional  
Massage Therapist

Diploma, Professional Massage Therapist, NUC  
University Technical Division

**Rodríguez Ramos, Carmen** – Nail Technology

Diploma, Nail Technology, Serbia's Technical College  
Puerto Rico

**Rodríguez Rosa, Laura** – Construction Technician  
Bachelor's Degree, Elemental Education (Math),  
University of Puerto Rico  
Certificate, General Industry Safety and Health, OSHA

**Romero Báez, Gloimary** – Esthetic  
Diploma, Professional Esthetics, Caribbean University

**Rosa Colón, Rocelyn** – International Bakery and  
Pastry  
Diploma, International Pastry and Baking, NUC  
University

**Santiago Rivera, Lesllye** – International Bakery and  
Pastry  
Diploma, Bakery and Pastry International, Institute of  
Banking and Commerce

**Serrano Soto, Wilfredo** – Computer and Network  
Repair Technician  
Bachelor's Degree, Installation and Repair of  
Computerized Systems, Interamerican University of  
Puerto Rico

**Torres Suárez, Héctor** – Culinary Arts  
Diploma, Regional and International Cuisine, NUC  
University

**Treviño Camacho, Estephanie** – Esthetic  
Diploma, Esthetic, NUC University Technical Division

**Vega Maldonado, Madeline** – Esthetic  
Diploma, Esthetics and Makeup, Century College

# Escorial Region Administration & Faculty

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## Campus Administration

Eliseo Martínez .....	Chancellor
Miguel Rosario.....	Academic Dean
Vacant .....	Academic Director (Technical Division)
Vacant .....	Admissions Director
Rubén Reyes.....	Financial Aid Director
Mayra Quiñones .....	Student Accounts Director
Iris Rosario .....	Placement Director
Maria De L. Burgos .....	Registrar
Dra. Myriam Vicente .....	Counselor
Kathlyn Torres.....	Librarian
Nilsa Gómez .....	Night Coordinator
Vacant .....	Admissions Coordinator
Jorge Valette.....	Retention Officer



# Escorial Region Faculty

## Campus Faculty

**Agosto Torres, Raymond** – Culinary Arts  
Diploma, Instituto de Banca y Comercio

**Andreu Reyes, Efraín** – Electricidad con Energía Renovable  
Diploma, Escuela Técnica de Electricidad

**Arocho Rodriguez, Diego** – Electricidad con Energía Renovable  
Grado Asociado en Tecnología Electrónica, Colegio Tecnológico de la Comunidad

**Benítez Gonzales, José** – Barbería y Estilismo  
Grado Asociado Tecnología Civil, Instituto Tecnología Diploma, D"Mart Institute Inc.

**Calderón Elicier, Omar K.** – Barbería y Estilismo  
Diploma, National University College IBC Institute

**Campos Salas, Alberto** – Técnico de Plomería  
Diploma, Instituto de Educación Universal

**Castro López, William** - Refrigeración y Aire Acondicionado con Inverter  
Diploma, National University College, IBC Institute

**Colón Rodríguez, Oscar** - Técnico de Construcción  
Diploma, NUC IBC Institute

**Conde Adorno, Lizbeth** - Enfermería Práctica con Electrocardiografía (EKG)  
Bachillerato, Universidad Metropolitana

**Coppin Bald, Annette** - Asistente de Maestro Preescolar  
Bachillerato en Educación Preescolar, Universidad del Este

**Dávila Ortiz, Mónica** - Cosmetología  
Diploma Cosmetología Básica, Escuela Vocacional Miguel Such

**Falero Mercado, Zaidybeth** - Associate Degree in Gastronomy and Culinary Management  
Bachillerato en Gerencia Culinaria Enfocado en la Administración y Manejo de Restaurantes, Universidad del Este

**Febres De Jesús, Morayma** – Estilismo y Diseño Avanzado  
Certificado Profesional, Instituto de Banca y Comercio  
Certificado Cosmetología, Escuela Vocacional Carlos F. Daniels

**Fernández Vargas, Enrique** - Técnico de Entrenamiento y Acondicionamiento Físico  
Master in Business Administration, Universidad Ana G. Mendez

**Gil Rodriguez, Melissa L.** - Diseño Gráfico, The Art Graphic Desig & Associate of Science, Institute of Fort Lauderdale

**Gilot Aquino, Lourdes** - Panadería y Repostería Internacional  
Diploma, Universidad Interamericana Metro

**González Torres, Alberto L.** – Matemática  
Bachillerato en Artes en Educación Secundaria con Concentración en Matemáticas, Universidad del Turabo  
Maestría Educación y Enseñanza de la Bellas Artes, Universidad del Turabo

**Guzmán Reina, Edwin** - Culinary Arts  
Master's Degree in Business Administration in Human Resources, National University College Recinto de Mayaguez,  
Bachelor Science Hospitality & Culinary Arts, Universidad del Este

**Guzmán Santiago, Francisco** – Destrezas Básicas/Matemáticas  
Bachillerato Ingeniería Química, Universidad de Puerto Rico  
Maestría Enseñanza en Matemáticas, Universidad Interamericana

**Hernández Ortiz, Zulma** – Enfermería Práctica con Electrocardiografía (EKG)  
Maestría en Salud Pública, Universidad de Puerto Rico  
Bachillerato en Enfermería Práctica, Universidad de Puerto Rico

**Hernández Villegas, Wilfredo** - Electricidad con Energía Renovable  
Diploma, Professional Technical Institution, Inc.

**Jaar Pérez, Ramón** - Destreza Básicas de Ingles

B.A. English, Universidad del Sagrado Corazón  
Literatura de América, Universidad de Puerto Rico

**La Salle López, Verónica** - Diseño Gráfico  
Bachillerato en Artes Gráficas, Universidad de Puerto Rico

**Latorre Kentish, Lorna** - Enfermería Práctica con Electrocardiografía (EKG)  
Bachillerato Ciencias de Enfermería, Dewey University

**López Alago, Elizabeth** - Enfermería Práctica con Electrocardiografía (EKG)  
Bachillerato Ciencias de Enfermería, Dewey University

**López Jiménez, Vivian** - Asistente de Maestro Preescolar  
Bachillerato en Artes de la Educación, Universidad Metropolitana

**López Rosa. Obed O.** - Técnico en Entrenamiento y Acondicionamiento Físico  
Master in Physical Educ., Universidad Ana G. Mendez

**Maldonado Rivera, Angel R.** - Terapeuta de Masaje Profesional  
Diploma, Antilles College of Health

**Maldonado Santiago, José D.** - Terapeuta de Masaje Profesional  
Diploma Maison, D'Esthetique

**Martin Betancourt, Eva** - Asistente Dental con Funciones Expandidas  
Diploma, Ramirez College of Business Technology

**Marzán Williams, Vanessa** – Estética  
Diploma. Professional Training Academy

**Montes Delgado, Pablo R.** - Refrigeración y Aire Acondicionado con Inverter  
Diploma, National University College

**Ocasio Rivera, Marisol** – Asistente Administrativo con Facturación Médica  
Maestría en Administración de Empresas Recursos Humanos, Columbia Central University

**Ortiz Morales, Jeannine** – Destrezas Básicas/ Inglés  
Maestría Maestro de Inglés como Segundo Idioma, Universidad Interamericana

**Ortiz Peña, Radamés** – Técnico de Plomería

Bachillerato en Educación Vocacional Industrial, Universidad del Turabo  
Técnico de Plomería, Escuela Vocacional República de Costa Rica en Caguas

**Olmedo Bendlin, Julio C.** – Terapeuta de Masaje Profesional  
Diploma, Instituto de Banca y Comercio

**Parrilla Matta, Isaac** – Asistente Dental con Funciones Expandidas  
Doctorado en Odontología, Universidad Nacional Pedro Henrique Ureña  
Bachillerato en Biología, Universidad de Puerto Rico

**Pérez Carbonell, Miosottis** – Asistente Administrativo con Facturación Médica  
Certificado Profesional, AFAMEP  
Bachillerato en Humanidades, Universidad de Puerto Rico

**Ríos Pimentel, Christian E.** – Técnico de Reparación de Computadoras  
Certificado Profesional, Instituto de Banca y Comercio  
Bachillerato en Sistemas de Información, Colegio Universitario de San Juan

**Rivera Alejandro, Carmen** – Culinary Arts  
Certificado Profesional, Instituto de Banca y Comercio  
Grado Asociado en Cocina Local e Internacional, Universidad del Este

**Rivera Ayala, Emanuel** – Estética  
Diploma Estética Facial y Corporal, Instituto de Banca y Comercio, Inc.

**Rivera Quijano, Adairis** – Destrezas Básicas/español  
Bachillerato en Educación Secundaria Español, Universidad de Puerto Rico

**Rivera Rohena, Jorge** – Destrezas Básicas/español  
Maestría en Educación, Universidad of Phoenix

**Rodriguez Collazo, José** – Electricidad con Energía Renovable  
Diploma, Liceo de Arte y Tecnología de San Juan

**Rodríguez Velázquez, Niurca** – Cosmetología  
Diploma, Modern Hairstyling Institute

**Romero Carreras, Elsie** – Estética  
Bachillerato en Ciencias Sociales, Universidad de Puerto Rico

Diploma Estética, Instituto Estética y Belleza Marugie

**Sánchez Cobo, Sergio** – Refrigeración y Aire  
Acondicionado con Inverter,  
Diploma, National University College

**Santana Crispin, Elba N.** – Panadería y Repostería  
Internacional  
Diploma, National University College IBC Institute

**Santiago Delgado, Carmelo** – Mixology/Bartending  
Diploma, Escuela Hotelera de Puerto Rico

**Santiago Torres, Rickey** – Técnico de Plomería  
B.A. Psicología, Universidad del Sagrado Corazón  
Diploma, Esc. Vocacional Tomas C. Ongay

**Suarez Matos, José L.** – Barbería y Estilismo  
Diploma, Puerto Rico Barber College, Inc

**Torres Laureano, Ruth** – Cosmetología  
Diploma, National University, División Técnica

**Torres Rodriguez, Laritza** - Tecnología de Uñas  
Diploma, Professional Training Academy of Esthetics &  
Beauty Courses Inc.

**Vázquez Cardona, Gabriel** – Técnico en  
Entrenamiento y Acondicionamiento Físico  
Diploma, Huertas College

**Vargas, Alvarado, Maritza** – Estética  
Diploma, MyrAngel Beauty Institute

**Vázquez Cruz, Joel** – Culinary Arts  
Diploma, Caribbean Culinary Institute

**Vega Fournier, Juan** – Cosmetología  
Diploma, Academia de Belleza Borinquén

# Mayagüez Region Administration & Faculty

## Campus Administration

Daisy Ruiz .....	Chancellor
Grelliane E. Barreto .....	Academic Affairs Dean
Ricardo J. Bonafé .....	Operations Director
Daritz Arroyo .....	Admissions & Marketing Director
Vacant .....	Student Accounts Director
Teresa D. Laboy .....	Student Affairs Director
Erick S. Vargas .....	Financial Aid Director
Luis A. Fred .....	Evening Coordinator
Nichole M. Laracuente .....	Admissions Coordinator
Vacant .....	Marketing Coordinator
Joan I. Gil .....	Tutoring Coordinator
Omar Mercado .....	Registrar
Deyleen Abraham .....	Nursing Laboratory Technician
Santiago J. Velázquez .....	Professional Counselor
John C. Miranda .....	Laboratory Technician
Víctor Otero .....	Library Director
Elky R. Valle .....	Placement Officer
Michael S. Russo .....	Effectiveness Officer

## IBC Technical Division – Aguadilla Administration

Vacant .....	Executive Director
Cristina Rosado .....	Academic Director
Mercedes Rosado .....	Evening Coordinator
Yolanda Nieves .....	Study Hall
Gloria Banchs .....	Admissions
Mariam Igartua .....	Placement
Christina Villa .....	Retention
Patricia Alemañy .....	Registrar
Dariana Mora .....	Academic Counseling
Angel Acevedo .....	Financial Aid
Mari Sanabria .....	Student Accounts

## IBC Technical Division – Mayagüez Administration

Ricardo Rodríguez .....	Executive Director
Brenda Sánchez .....	Academic Director
Vanessa Vega .....	Evening Coordinator
María Mercado .....	Study Hall
Yajaira De Jesús .....	Admissions
Dessiner Lamoli .....	Placement
José Colón .....	Retention
Rosecel González .....	Registrar
Félix González .....	Academic Counseling
Vacant .....	Financial Aid
Vacant .....	Student Accounts

## IBC Technical Division – Moca Administration

Hermit Toro .....	Executive Director
Ana M. Cardona .....	Academic Director
Issallix Marquéz .....	Evening Coordinator
Doris Muñiz .....	Study Hall
Vacant .....	Admissions
Mónica González .....	Placement
Keishly González .....	Retention
Arlene Perez .....	Registrar
Oscar Torres .....	Academic Counseling
Sonia Santiago .....	Financial Aid
Vacant .....	Student Accounts

# Mayagüez Region Faculty

## Campus Faculty

### *Academic Administrative Staff*

**López-Rivera, Miriam** – Nursing Program Director  
PhD, Nursing Healthcare Administration, Universidad  
Sãobento de Brazil  
MSN, Cuidado Materno Infantil, Universidad  
Interamericana Recinto de Arecibo  
BSN, Universidad de Puerto Rico Recinto de Ciencias  
Médicas

**Loperena-Cordero, Grasly** – Health Sciences Program  
Director  
Ed. D, Universidad Sãobento de Brazil  
MEd, Universidad Ana G. Méndez Recinto de Aguadilla  
MEd, Universidad Ana G. Méndez Recinto de Aguadilla  
BA, National University College

**Muñiz-Sánchez, Erick J.** – General Education Director  
MBA, NUC University División Online  
BSN, Universidad Interamericana Recinto Aguadilla

**Olivencia-Martínez, Rafael A.** – Distance Education  
Director  
MBA, Universidad de Puerto Rico Recinto de Mayagüez  
BSBA, Universidad de Puerto Rico Recinto de Mayagüez

**Rodríguez-López, Michelle** – Clinical Liaison  
PhD, Nursing Healthcare Administration, Universidad  
Sãobento de Brazil  
MSN, Acute Critical Care, EDP College  
BSN, Nursing, Universidad Adventista de las Antillas

### *Faculty*

**Cortés-Cortés, Elisa**  
PhD, Nursing Healthcare Administration, Universidad  
Sãobento de Brazil  
MSN, Acute Critical Care, EDP College  
BSN, Universidad Interamericana Recinto de Arecibo

**Díaz-Lugo, Marta**  
MSN, Mental Health and Psychiatry, Universidad Católica  
de Ponce  
BSN, Universidad Católica de Ponce

**Morales-Morales, Alfredo**  
PhD, Nursing Healthcare Administration, Universidad  
Sãobento de Brazil

MSN, Critical Care, Universidad Adventista de las Antillas  
BSN, Universidad Adventista de las Antillas

**Pérez-Gerena, Rubén**  
MSN, Critical Care, Universidad Interamericana Recinto  
de Arecibo  
BSN, Universidad Interamericana Recinto de Arecibo

**Quiñones-González, Lourdes**  
MSN, Education, NUC University Recinto de Mayagüez  
BSN, Universidad de Puerto Rico Recinto de Mayagüez

**Soto-Rivera, Dinorah**  
MSN, Medical Surgical, NUC University Recinto de  
Mayaguez  
BSN, NUC University Recinto de Mayagüez

**Vargas-Feliciano, Rosa**  
MSN, Adults and Elderly, Columbia Central University  
Recinto de Yauco  
BSN, Universidad Interamericana Recinto de San  
Germán

## IBC Technical Division – Aguadilla Faculty

### *Academic Administrative Staff*

**Noguera Vélez, María de Lourdes** – Master Lead  
Culinary Arts  
GA, Artes Culinarias, Universidad del Este  
Diploma, Cocina Local e Internacional, Instituto de  
Banca y Comercio  
Diploma, International Pastry and Baking, NUC  
University

**Cortés-Cortés, Juniel** – Lead  
GA, Artes Culinarias, Universidad Ana G. Méndez  
Diploma, Escuela Hotelera de San Juan  
Diploma, IBO

**Díaz-Trinidad, Marelyne** – Lead  
Bachillerato en Educación Temprana y Elemental,  
Universidad del Este

**Echevarría-Avilés, Joaquín** – Lead  
Diploma, Emma's Beauty Academy

**Gordils Jiménez, Denisse** – Lead  
BA, Universidad de Puerto Rico

**Jiménez Seguinot, Clarissa** – Lead  
Diploma, Instituto de Banca y Comercio  
Diploma, NUC University  
Diploma, Academia Morales, Inc.

**Rodríguez Pérez, Nidia** – Lead  
Diploma, Estética, NUC University  
Diploma, Barbería, NUC University  
Diploma, Cosmetología, Institute of Beauty Occupation

**Román Oquendo, Joann** – Lead  
Bachillerato, Artes Gráficas, Universidad de PR

**Santiago-Reverón-Luz M.** – Lead  
Diploma, Técnica de Uñas, Instituto Irma Valentín

### ***Faculty***

**Amaez-Concepción, Amáez** – Artes Culinarias  
Diploma, Artes Culinarias, NUC University

**Aquino-Rivera, Elica** – Artes Culinarias  
Diploma, Chef of Local and International Food, POPAC  
Diploma, International Pastry and Baking, NUC University

**Cordero-Cabán, Joel** – Barbería  
Diploma, Barbería, NUC University

**Crespo-Medina, Joctan** – Terapeuta de Masaje Profesional  
Diploma, Terapeuta de Masaje Profesional, NUC University

**Herrera-López, Delvis** – Tecnología de Uñas  
Diploma, Tecnología de Uñas, NUC University

**Medina-Bonilla, Milagros** – Tecnología de Uñas  
Diploma, Tecnología de Uñas, Universal en Técnica de Uñas

**Monroig-López, Joswin** – Barbería  
Diploma, Barbería, NUC University

**Morales-Reyes, Nuria** – Asistente Administrativo con Facturación Médica  
Bachillerato, Administración de Empresas, Estudios Organizacionales, Universidad de Puerto Rico

**Ríos-Hernández, Betsy** – Artes Culinarias  
Diploma, Artes Culinarias, NUC University

**Ríos-Martínez, Darianna** – Cosmetología  
Diploma, Cosmetología, NUC University

**Rivera-Echevarría, Yasmarie** – Estética  
Diploma, Estética, Institute of Beauty Careers

**Rodríguez-Báez, Carmen** – Cosmetología  
Diploma, Cosmetología, Institute of Beauty Careers

**Rodríguez-Ruiz, Laura** – Diseño Gráfico  
Maestría, Artes Gráficas, Atlantic University College

**Rodríguez-Báez, Carmen** – Cosmetología  
Diploma, Cosmetología, Institute of Beauty Careers

**Sotomayor-Colón, Carlos** – Barbería

### **IBC Technical Division – Mayagüez Faculty**

#### ***Academic Administrative Staff***

**Ramírez Luciano, Yadhira** – Master Lead de Artes Culinarias  
Diploma en Cocina Local e Internacional, Instituto de Banca y Comercio

### ***Faculty***

**Acevedo Mercado, Juan C.** – Panadería y Repostería Internacional  
Certificado en Panadería y Repostería Internacional, Escuela Hotelera de San Juan  
Certificado en Técnico de Artes Culinarias, Universidad Interamericana de PR

**Arvelo González, Eugene** – Barbería y Estilismo  
Diploma en Barbería, Maison D'Esthetique Academy

**Barreto Acevedo, Julio** – Refrigeración y Aire Acondicionado con Inverters  
Diploma en Refrigeración y Aires Acondicionados, Instituto de Banca y Comercio

**Berrios Santos, José** – Barbería y Estilismo  
Diploma en Barbería, Professional Training Academy  
Diploma en Cosmetología, Professional Training Academy

**Cardona Ramos, José** – Mixología/Bartending  
Diploma en Bartending, NUC University – División Técnica IBC

**Christian Sepúlveda, Michelle** – Cosmetología  
Diploma en Cosmetología, Emma's Beauty Academy  
Diploma en Estética, NUC University – División Técnica IBC

**Crespo Aponte, Anthony** – Terapeuta de Masaje Profesional  
Diploma en Terapeuta de Masaje Profesional. Escuela de Masajes RED

**Crespo Valentín, Emmanuel** – Gerencia de Funeraria y Embalsamamiento  
Certificado en Ciencias Mortuorias. PR Tech Junior College

**De Jesús Flores, Roberto** – Artes Culinarias  
Certificado en Especialista en Artes Culinarias, Escuela Hotelera de San Juan

**Dros Rodríguez, Wanda** – Tecnología de Uñas  
Diploma en Técnica de Uñas, Universal Training Institute

**Espinosa Rodríguez, Edgardo** – Técnico de Construcción  
Bachillerato en Educación Ocupacional, Universidad Ana G. Mendez

**García Torres, Denira** – Terapeuta de Masaje Profesional  
Certificado en Terapeuta de Masaje, ICPR Junior College

**González Flores, Yajaira** – Estética  
Diploma en Estética, NUC University – División Técnica IBC

**González Rodríguez, David** – Panadería y Repostería Internacional  
Diploma en Panadería y Repostería Internacional, Instituto de Banca y Comercio

**Hernández Castillo, Alice** – Tecnología de Uñas  
Diploma en Técnica de Uñas, American Business College

**Laracuenta Bernat, Carlos** – Electricidad con Energía Renovable  
Bachillerato en Ingeniería Industrial, Universidad Politécnica de Puerto Rico  
Diploma en Electricidad con PLC y Sistemas Fotovoltaicos, Password Technical College

**López Pardo, Víctor** – Mixología/Bartending  
Diploma en Bartending, NUC University – División Técnica IBC

Diploma en Técnico de Emergencias Médicas – Paramédico, NUC University – IBC

**Martínez Morales, Edwin** – Electricidad con Energía Renovable  
Diploma en Electricidad con PLC, Instituto de Banca y Comercio  
Diploma en Refrigeración y Aires Acondicionados, Instituto de Banca y Comercio

**Nieves Cabán, Tiffany** – Artes Culinarias  
Bachillerato en Gerencia Culinaria, Universidad del Este

**Ortiz Montañez, Yahaira** – Estética  
Diploma en Estética, Emma's Beauty Academy

**Pares Carbonell, Alejandro** – Técnico de Reparación de Computadoras y Redes  
Bachillerato en Sistemas de Información, Pontificia Universidad Católica de Puerto Rico

**Quiñones Pellicier, Eladio** – Matemáticas  
Maestría en Currículo e Instrucción en Matemáticas, University of Phoenix  
Maestría en Enseñanza de Matemáticas, Universidad Interamericana de PR

**Ramírez Luciano, Yadhira** – Master Lead de Artes Culinarias  
Diploma en Cocina Local e Internacional, Instituto de Banca y Comercio

**Sánchez Malavé, Ileana** – Estética  
Diploma en Estética, Emma's Beauty Academy

**Santiago Rivera, Carmen** – Cosmetología  
Diploma en Cosmetología y Pivot Point, Emma's Beauty Academy

**Torres Pagán, Fabiola** – Estética  
Diploma en Estética, Mayaguez Institute of Technology

**Vazquez Ramírez, Wilberto** – Diseño Gráfico  
Bachillerato en Artes Visuales, Universidad Interamericana de Puerto Rico

**Vélez Díaz, Jahrianna** – Diseño Gráfico  
Maestría en Mercadeo Digital, Universidad del Sagrado Corazón  
Bachillerato en Comunicación Tele-Radial, Universidad de Puerto Rico



**Vélez González, Jeremy** – Artes Culinarias  
Certificado en Artes Culinarias, Pontificia Universidad  
Católica de Puerto Rico

**Vélez Sepúlveda, Luis** – Refrigeración y Aire  
Acondicionado con Inverters  
Diploma en Refrigeración y Aire Acondicionado con PLC,  
Instituto de Banca y Comercio

## **IBC Technical Division – Moca Faculty**

### ***Academic Administrative Staff***

**Arocho Nieves, Wilfredo** – Lead  
BA, Universidad Ana G. Méndez

**Brañas Rivera, Francisco**-Lead  
GA, Tecnología Eléctrica

**Feliciano Acevedo, Alex**- Lead  
Diploma, Barbería y Estilismo

**Ortiz Justiniano, Janitza** – Lead  
Diploma, Cosmetología

**Ramos Santana, Lizmarie** – Lead  
Diploma, International Pastry and Baking

**Santiago Pizarro, Erika**- Lead  
Diploma, Nail Technology

### ***Faculty***

**Almodovar Crespo, Jonathan** – Mixología  
Diploma, Bartending, Nuc University Mayaguez

**Beltran Cortes, Carlos** -Refrigeración  
Diploma, Refrigeration and Air Conditioning, Nuc  
University

**Beltrán Márquez, Keila**- Cocina Local E International  
Diploma, Regional and International Cuisine, Nuc  
University

**Camacho Figueroa, Yomarys**- Cosmetología  
Diploma, Cosmetología, International Junior Collage

**Colón Lamberty, Miguel**- Plomería  
Certificación, Plomería, Ramey Job Corps

**Cordero Rosa, Carlos** – Electricidad  
Diploma, Electricidad General, Escuela de Peritos  
Electricistas Isabela

**Crespo Mercado, Jesus**- Técnico en Reparación de  
Computadoras  
BA, Network Technology and Application, Nuc University  
Mayaguez

**Rivera Alicea, Daniel** – Construction Technician  
Certificaciones, Handyman, Superior Vocacional Manuel  
Méndez Liciaga San Sebastián

**Rivera Pérez, Migdalia**- Inglés  
Maestría, Teaching and Learning –Elementary Reading,  
Nova Southeastern University

**Rodríguez Hernández, Eileen**- Cosmetología  
Diploma, cosmetología, National University College

**Santiago, Pizarro, Erika**- Tecnología de Uñas  
Diploma, Tecnología de Uñas, Nuc University

**Vargas Martinez, Raquel** – Tecnología de Uñas  
Diploma, Tecnología de Uñas, Nuc University

**Vargas Méndez, Miguel**- Electricidad  
Diploma, Electricidad General, Escuela de Peritos  
Electricistas Isabela

# Ponce Region Administration & Faculty

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## Campus Administration

Dr. Frances Vázquez .....	Chancellor
Deborah Alvarado .....	Academic Affairs Dean
Julio Rodríguez .....	Operations Director
Diana Mercado .....	Financial Aid Director
Miriam Rodríguez .....	Student Accounts Regional Director
Brenda Ruiz .....	Admissions and Marketing Director
José Alameda .....	Marketing Coordinator
Jazmin O'connor's .....	Tutoring Coordinator
Carmen Alvarado .....	High School Coordinator
Salvador Colón .....	Academic Advisor
Marilyn Cintrón .....	Professional Counselor
Sonia Crespo .....	Registrar
José Gracia .....	System Administrator
Félix León .....	Basic Skills Laboratory Technician
Ruth M. Negrón .....	Placement Officer

## IBC Technical Division – Ponce Administration

Raúl Morales .....	Executive Director
Griselle Vázquez .....	Academic Director
Olga Lugo .....	Evening Coordinator
Jannice Soler .....	Library/Study Hall
Daisy Figueroa .....	Admissions
Frankie Almodóvar .....	Placement
Alfred Alicea .....	Retention
Sonia Crespo .....	Registrar
Waleska Justiniano .....	Academic Counseling
Julissabeth Rosado .....	Financial Aid
Norma I. Irizarry .....	Student Accounts

## IBC Technical Division – Yauco Administration

Awilda Roche .....	Executive Director
María del C. Plaza .....	Academic Director
Vacant .....	Evening Coordinator
Roxan Ghigliotti .....	Study Hall
Tanya D. Echevarria .....	Admissions
Vacant .....	Placement
Zuleyka Mari .....	Retention
Luzdelise Ortiz .....	Registrar
Vacant .....	Academic Counseling
Julissabeth Rosado .....	Financial Aid
Victor A. Ortiz .....	Student Accounts

# Ponce Region Faculty

## Campus Faculty

### *Academic Administrative Staff*

**Ayala Hernández, Moraima** – Clinical Liaison  
MSN, Caribbean University  
BSN, National University College

**Carrero-Valles, Érica** – Health Sciences Director  
MS, Pontifical Catholic University of PR  
BS, Pontifical Catholic University of PR

**Serrano-Martínez, Karitza** – Nursing Director  
MSN, National University College  
BSN, National University College

**Vázquez-Padilla, José** – General Education Director  
PhD, Interamerican University of Puerto Rico  
MA, Universidad Central de Bayamón  
BA, Universidad Central de Bayamón

### *Faculty*

**Álvarez Delgado, Ana** – Nursing  
MNS, Columbia Centro Universitario  
BSN, Interamerican University of Puerto Rico

**Báez-Rodríguez, Mirna** – Nursing  
MSN, National University College  
BSN, National University College

**Burgos-Guzmán, Denisse** – Nursing  
MSN, Pontifical Catholic University of Puerto Rico  
BSN, Interamerican University of Puerto Rico

**Cuevas-Justiniano, Nancy** – Nursing  
MSN, Caribbean University  
MPH, Ponce School of Medicine  
BSN, Pontifical Catholic University of PR

**Guilloty-Caraballo, Madeline** – Nursing  
BSN, Pontifical Catholic University of PR

**León-Sastre, Ivette** – Nursing  
MSN, Caribbean University  
BSN, Pontifical Catholic University of Puerto Rico

**Mahmud-Pérez, Aziza** – Nursing  
PhD, Caribbean University  
MSN, University of Puerto Rico  
BSN, Pontifical Catholic University of Puerto Rico

**Nazario-Plaza, Lucía** – Nursing  
PhD, Caribbean University  
MSN, Pontifical Catholic University of Puerto Rico  
BSN, Pontifical Catholic University of Puerto Rico

**Rivera-Hernández, Raúl** – General Education  
MA, Caribbean University  
BA, University of Puerto Rico

**Rivera-Martínez, Yanira** – Nursing  
MD, Universidad Central del Este  
MSN, Columbia Central University  
BSN, Pontifical Catholic University of Puerto Rico

**Rivera-Rivera, María** – Nursing  
MSN, Caribbean University  
BSN, Interamerican University of Puerto Rico

**Rivera-Rodríguez, Nelismarie** – Criminal Justice  
Coordinator  
MC, Universidad del Este  
BC, Universidad del Este

**Rodríguez-David, Luz** – Health Sciences  
MD, Universidad Autónoma de Guadalajara  
BS, Pontifical Catholic University of PR

**Santiago-Hernández, Josemy** – Nursing  
MSN, National University College  
BSN, University of Puerto Rico

**Santiago-Zambrana, Zoraida** – Nursing  
MSN, Pontifical Catholic University of PR  
BSN, Pontifical Catholic University of PR

**Soler-Rodríguez, Irma** – Nursing  
MSN, Pontifical Catholic University of PR  
BSN, Interamerican University of Puerto Rico

**Vargas-Alvarado, Ricardo** – Nursing  
MSN, Columbia  
BSN, Interamerican University of Puerto Rico

**Vázquez-Echevarría, Irma** – Nursing  
MSN, National University College  
BSN, Pontifical Catholic University of Puerto Rico

**Vélez-Caquias, Yvonne** – General Education  
PhD, Caribbean University  
MAE, University of Phoenix  
BA, World University

**Villa-Medina, Heidy** – Nursing  
PhD, Caribbean University  
MAE, Caribbean University  
BSN, Pontifical Catholic University of Puerto Rico

## **IBC Technical Division – Ponce Faculty**

### ***Academic Administrative Staff***

**Rivera Colón, Ivelisse**– Senior Master Lead Culinary Arts  
Bachelor of Business Administration, Hotel Restaurants Management,  
Interamerican University of Puerto Rico

**Ortíz Rodríguez, Orpha** – Master Lead Beauty Programs  
Diploma, Barber, D'mart Institute, Diploma, Advanced Stylist & Cosmetology,  
Marugie Beauty & Technical College, Diploma Cosmetology, Marugie Beauty & Technical College

### ***Faculty***

**Abreu Toyéns, Marilyn** – Esthetic  
Certificate, Advanced Facial Aesthetics & Facial Aesthetics, Sonage Institute

**Acosta Ortiz, Walter** – Tourism & Hotels, Bachelor of Business Administration, Marketing,  
Pontifical Catholic University of Puerto Rico

**Almodóvar Irizarry, Rakel** – Professional Massage Therapist  
Diploma, Professional Massage Therapy, Ponce Paramedical College

**Ayala Cales, Eliel** – Culinary Arts  
Associate Degree, Local & International Cuisine, National University College, Diploma, Local & International Cuisine, Instituto de Banca y Comercio

**Barrera Vélez, Vivian** – Graphic Design  
Master Degree in Graphics Arts, Atlantic University College, Bachelor of Arts Social Sciences, Psychology and Mental Health, University of Puerto Rico

**Batista Vélez, Joel** – Preschool Teacher Assistant  
Master of Education with Specialization in Administration and Supervision, Caribbean University, Bachelor of Elementary Education Minor in Preschool, Pontifical Catholic University of Puerto Rico

**Beltrán Colón, Carlos J.** – International Baking & Pastry  
Associate Degree, Local & International Cuisine, National University College, Diploma, International Baking and Confectionery, Instituto de Banca y Comercio

**Berrios Delgado, Carlos** – Basic Emergency Medical Technician  
Diploma, Emergency Medical Technician- Paramedic, Vocational School Pedro Perea Fajardo

**Chico Cruz, Josué** – Associate Degree in Gastronomy and Culinary Management  
Bachelor of Science Administration Culinary Arts and Hospitality/Culinary Management, Associate Degree in Science Culinary Arts, Certificate Culinary Arts, Universidad Del Este

**Collazo Rivera William** – Mixology  
Diploma, Bartending, Instituto de Banca y Comercio

**Cosme Rentas, José R.** – Culinary Arts  
Associate Degree, Local & International Cuisine, Instituto de Banca y Comercio, Diploma, Local & International Cuisine, Instituto de Banca y Comercio

**Cruz Arzola, Jean C.** – Training and Fitness Technician  
Bachelor of Science Major Sports Science in Physical Conditioning, Pontifical Catholic University of Puerto Rico

**Díaz Gutiérrez, Sandra** – Nail Technology  
Certificate, Sculptural Nails and Manicure, Professional Training Academy of Esthetics & Beauty Courses

**Esmurria De Jesús, Enid** – Barbering & Styling  
Diploma, Master Barber Stylist, Diploma Barbering, Diploma, Advance Stylist, Emma's beauty Academy

**Feliciano Arroyo, Iván** – Network Administration  
Bachelor Degree in Information Systems, Universidad Del Este

**Feliciano Ramos, Emilio** – Plumbing Technician  
Diploma, Plumbing, Vocational School Bernardino Cordero Bernard

**Ferrer Torres, Michael** – Electricity with Renewable Energy  
Bachelor of Science Civil Engineering, Polytechnic University of Puerto Rico, Associate Degree Civil Engineering Technology, Instituto Tecnológico de Puerto Rico, Diploma, Electricity, Vocational School Bernardino Cordero Bernard

**Figueroa Colón, Sergio** – Culinary Arts  
Diploma, Local & International Cuisine, Instituto de Banca y Comercio

**Franceschi Portalatín, Dora V.** – Associate Degree in Gastronomy and Culinary Management  
Master of Education with Specialization in Educational Leadership, National University College, Associate Degree in International Bakery and Pastry, Local & International Cuisine, Diploma, Local & International Cuisine, Instituto de Banca y Comercio

**Galarza Sepúlveda, Marisol** – Biology Sciences  
PHD in Philosophy Hispanic Studies concentration in Spanish Literature, Universidad de Puerto Rico, Master of Arts in Hispanic Studies, Pontifical Catholic University of Puerto Rico, Bachelor of Science with concentration of Biology, Universidad de Puerto Rico

**Gallego González, Yariluz** – Nails Technology  
Diploma Nails Technician, Instituto Educativo Premier

**García Bermúdez, Margie** – Geriatric Technician/Practice Nursing with Electrocardiography  
Master's Degree in Science in Nursing with Specialty in Medical Surgical and Role in Education, NUC University, Bachelor's Degree in Science in Nursing, NUC University, Associate Degree in Nursing, NUC University

**Giménez Rosario, Alex S.** – Computer and Network Repair Technician  
Bachelor in Business Administration with a concentration in Information Systems, Pontifical Catholic University of Puerto Rico

**González Lebrón, Jackeline** – Administrative Assistant with Medical Billing  
Bachelor of Secretarial Sciences, Pontifical Catholic University of Puerto Rico

**González Ortiz, Yamaris** – Associate Degree in Emergency Medical Technician- Paramedic  
Master's Degree in Science in Nursing with Specialty in Medical Surgical and Role in Education, NUC University, Bachelor's Degree in Science in Nursing, NUC University, Diploma Emergency Medical Technician-Paramedic, NUC University

**González Rodríguez, Ruth E.** – Cosmetology  
Diploma Cosmetology, Professional Training Academy of Esthetics and Beauty Courses

**González Toledo, Rosana** – Esthetic  
Diploma Esthetic, Advance Beauty Training Center

**Jiménez Maldonado, Elizabeth** – Training and Fitness Technician  
Diploma Training and Fitness Technician, National University College IBC Institute

**Laracuate Quiñones, Blanca** – Cosmetology  
Diploma Advance Cosmetology, Emm's Beauty Academy, Cosmetology, Professional Training Academy of Esthetics and Beauty Courses

**Laugier Carrión, Rodolfo A.** – Construction Technician  
78 Credits Civil Engineering, Caribbean University, 63 Credits Accounting, Universidad Del Este

**Lluch Figueroa, Flor** – Funeral Management and Embalming  
Master's Degree in Environmental Sciences, Interamerican University of Puerto Rico, Bachelor Degree in Biology, Interamerican University of Puerto Rico

**López Domenech, Elaine** – General Education-English  
Master of Education Teaching of English as Second Language, Catholic University of Puerto Rico, Bachelor in Arts Elementary Education English, Catholic University of Puerto Rico

**López Mosa, José M.** – Funeral Management and Embalming  
Associate Degree Mortuary Sciences, The Cincinnati College of Mortuary Science

**López Rosado, Wilton** – Electricity with Renewable Energy  
Diploma Electricity Technician, Escuela Técnica de Electricidad

**Maldonado Machado, Sheilián** – Cosmetology/PL Cínica Belleza  
Diploma Cosmetology, Diploma Professional Make Up, Instituto Educativo Premier

**Millán Colón, Julieann M.** – Esthetics  
Diploma Professional Make Up, Instituto Educativo Premier

**Morales Mendoza, Maricely** – Esthetics  
Diploma Professional Make Up, Instituto Educativo Premier

**Morales Santiago, Joan** – Cosmetology  
Diploma Advanced Stylist, Serbia's Technical College,  
Diploma Basic Cosmetology, Serbia's Technical College

**Morel Rivera, José A.** – Graphic Design  
Bachelor's Degree in Digital Graphic Design, Atlantic  
University College

**Núñez Santiago, Sheila** – Preschool Teacher Assistant  
Bachelor of Early Childhood Education K-3,  
Interamerican University of Puerto Rico

**Ortiz Velázquez, Noris I.** – International Baking &  
Pastry  
Diploma International Baking and Pastry, Instituto de  
Banca y Comercio

**Pabón Arroyo, Jorge L.** – Barbering & Styling  
Diploma Barbering, Emma's Beauty Academy

**Pacheco Custodio, Esteban** – Culinary Arts  
Diploma Regional & International Cuisine, Instituto de  
Banca y Comercio

**Padilla Rivera, Annette** – Preschool Teacher Assistant  
Master of Arts in Education with a Specialty in  
Curriculum and Teaching in primary Grades, Caribbean  
University, Bachelor of Education in Elementary  
Sciences, Pontifical Catholic University

**Quiñones Romero, José** – Refrigeration and A/C with  
Inverters  
Master of Arts Occupational Education, Bachelor of  
Business Administration Industrial Management,  
Interamerican University of Puerto Rico, Diploma  
Refrigeration, Vocational School Bernardino Cordero  
Bernard

**Ramos Reyes, Erick E.** – Graphic Design  
Bachelor Degree in Digital Graphic Design, Atlantic  
University College

**Rentas De Jesús, Juliana** – General Education-  
Spanish  
Master in Hispanic Studies, Pontifical Catholic University  
of Puerto Rico, Bachelor of Arts Second Education  
Spanish, University of Puerto Rico

**Rivera Bonilla, Alma** – Cosmetology  
Diploma Cosmetology, Professional Training Academy of  
Esthetics and Beauty Courses

**Rivera González, Mario** – Mixology  
Master of Executive Hospitality Management, University  
of Houston, Bachelor Degree in Business Administration  
with Major in Management, NUC University, Diploma  
Bartending, Escuela Hotelera de San Juan

**Rodríguez, Didra E.** – Professional Massage Therapist  
Diploma Therapeutic Massage, Florida College of Natural  
Health

**Rodríguez Rivera, Francisco** – Electricity with  
Renewable Energy  
Diploma Electricity, Vocational School Bernardino  
Cordero Bernard

**Rodríguez Silvagnoli, Frankie** – Administration &  
Informatics/ General Education- Math/  
Bachelor of Computer Science, Interamerican University  
of Puerto Rico

**Rodríguez Torres, Francisco** – Plumbing Technician  
Diploma Plumbing, Vocational School Luis Muñoz Marín

**Rodríguez Vera, Leonardi** – Electricity with  
Renewable Energy  
Diploma Industrial Electronic Technician with Electricity,  
Liceo de Artes y Tecnología

**Rosario Guzmán, Joel** – Barbering & Styling  
Diploma Barbering, Emma's Beauty Academy

**Ruiz Rivera, Marangelly** – Geriatric  
Technician/Practice Nursing with Electrocardiography  
Master in Health Services Management & Evaluation,  
Universidad Ana G. Méndez, Bachelor of Science in  
Nursing, Pontifical Catholic University of Puerto Rico

**Ruiz Rivera, Richard** – Plumbing Technician  
Certificate Plumbing, Occupational & Technical High  
School of Yauco

**Santana Grandoné, Miguel** – Funeral Management  
and Embalming  
Diploma Mortuary Sciences, Vocational School Miguel  
Such

**Santiago Cruz, Angel D.** – Graphic Design  
Bachelor of Arts - Fine Arts, Pontifical Catholic University  
of Puerto Rico

**Santiago Natal, Félix** – Refrigeration and A/C with  
Inverters  
Diploma Refrigeration & A/C, Escuela Técnica de  
Electricidad



**Santiago Vázquez, Maritza** – Practice Nursing with Electrocardiography/Geriatric Technician  
Bachelor's Degree in Sciences in Nursing, National University College

**Silvestrini Vega, Ziomarelys** – Nail's Technology  
Diploma Nails Technician, Instituto de Banca y Comercio

**Texeira Rodríguez, Firpo G.** – Associate Degree in Emergency Medical Technician- Paramedic  
Bachelor's Degree in Sciences in Nursing, NUC University, Diploma Emergency Medical Technician- Paramedic, Instituto de Banca y Comercio

**Torres Méndez, Rosa** – Administrative Assistant with Medical Billing  
Bachelor of Secretarial Sciences, Pontifical Catholic University of Puerto Rico

**Torres Montes, Jeannette** – General Education/English  
Master in Education Teaching English Second Language, Universidad del Este, Bachelor of Arts Elementary Education, University of Puerto Rico

**Torres Torres, José M.** - Culinary Arts  
Diploma Regional & International Cuisine, NUC University

**Wilson Torres, Migdalia** – Nail's Technology  
Diploma Nails Technician, Professional Make Up, Cosmetology, Instituto Educativo Premier

**Vázquez Santana, Iris** – Esthetic  
Certificate Esthetic, Advance Beauty Training Center

## **IBC Technical Division – Yauco Faculty**

### **Faculty**

**Alvarado Ortiz, Félix J.** – Diseño Gráfico  
Atlantic University College: Bachillerato en Diseño Gráfico Digital con Fotografía Digital

**Báez Camacho, Cynthia** – Barbería y Estilismo/  
Cosmetología.  
Instituto de Banca y Comercio: Diploma en Barbería y Estilismo / Diploma en Cosmetología

**Balbuena Rodríguez, Juan** – Electricidad con Energía Renovable  
Escuela Superior Vocacional Mayagüez: Electricidad

**Bobé Pacheco, Carmen** – Asistente de Maestro Pre-Escolar  
University of Phoenix: Master of Arts in Education /Early Childhood

**Caraballo Ortiz, Johanna** – Estética  
Ponce Paramedical College, Inc.: Diploma en Estética  
Emmas Beauty Academy- Cosmetología  
National University College- Estilismo y Diseño Avanzado

**Carcaño Pagán, Luciann** – Diseño Gráfico  
Atlantic University College: Maestría en Artes Gráficas

**Cedeño Ramos, Neftalí** – Barbería y Estilismo /  
Master en Barbería  
Emma's Beauty Academy – Diploma en Barbería

**Class Feliciano, Ramón** – Electricidad con Energía Renovable  
Instituto de Banca y Comercio: Diploma en Electricidad con PLC

**Crespo Peña, Augusto** – Refrigeración y Aire Acondicionado con Inverters  
Instituto de Banca y Comercio: Diploma en Refrigeración y Aire Acondicionado con PLC

**Cruz Ortiz, Gabriel** – Mixología/Bartending  
Instituto de Banca y Comercio: Diploma en Bartending

**Cruz Velásquez, Wilfredo** – Emergencias Médicas – Básico  
National University College: Diploma en Técnico de Emergencias Médicas

**Cuevas Robles, Rosa** – Cosmetología  
Instituto de Banca y Comercio: Diploma en Cosmetología

**Delgado Caraballo, Josué** – Tecnología de Uñas  
Instituto de Banca y Comercio: Diploma en Tecnología de Uñas

**Díaz Quiros, Yasmín** - Cosmetología  
Emmas Beauty Academy – Diploma en Cosmetología

**Ferreira Casiano – Wilfredo** – Asistente de Maestro Preescolar  
Pontificia Universidad Católica- Maestría en Administración y Supervisión Escolar  
Pontificia Universidad Católica- BA Educación de Nivel Elemental



**Galarza Báez, Enid** – Enfermería Práctica con EKG / Técnico Geriátrico  
Universidad de Puerto Rico: Bachillerato en Ciencias en Enfermería

**Galarza Rivera, Abel** – Diseño Gráfico / Panadería y Repostería Internacional  
Universidad Sagrado Corazón: Bachillerato en Artes Visuales  
Escuela Hotelera de San Juan: Diploma en Panadería y Repostería Internacional

**González Marrero, Glenice** – Estética  
NUC University División Técnica IBC: Diploma en Estética

**Hernández Almodóvar, Julio** – Entrenamiento y Acondicionamiento Físico  
Universidad de Puerto Rico: Bachillerato en Ciencias - Biología y Mejoramiento Profesional

**Irizarry Camacho, Brenda** – Tecnología de Uñas  
Instituto de Banca y Comercio: Diploma en Tecnología de Uñas  
Emmas Beauty Academy- Especialista en Belleza

**Irizarry Cortés, Humberto** – Técnico en Emergencias Médicas – Básico / Enfermería Práctica con EKG  
Ponce Paramedical College- Técnico de Emergencias Medicas  
National University College- BA Ciencias de Enfermería

**Irizarry Flores, Norma I.** – Asistente Administrativo con Facturación Médica  
Universidad Interamericana de PR: Bachillerato en Ciencias Secretariales

**López Quiñones, Jaime** – Electricidad con Energía Renovable  
Instituto de Banca y Comercio: Diploma en Electricidad con PLC

**Luciano Rodríguez, Omayra** – Terapeuta del Masaje Profesional  
Ponce Paramedical College, Inc.: Diploma en Terapia del Masaje Profesional

**Pérez Rodríguez, Yahaira** – Panadería y Repostería Internacional  
NUC University College- International Pastry & Baking

**Medina Cancel, Yahaira** – Asistente Administrativo con Facturación Médica

Universidad Interamericana de PR- BA Ciencias Secretariales con especialidad en procesamiento de información.

**Muñoz Dávila, Carlos M.** – Matemáticas / Educación General  
Universidad Católica de PR: Bachillerato en Matemáticas  
University of Phoenix: Maestría en Educación

**Ortiz Colón, Yolymilt** – Culinary Arts  
Escuela Hotelera de San Juan: Diploma en Cocina Profesional y Servicio de Mesa

**Pagán Figueroa, Evelyn** – Inglés  
Universidad del Este: Maestría en Artes en Educación/ Educación Bilingüe

**Ramos Amadeo, Sarah** – Asistente de Maestro Preescolar  
Universidad Católica de PR: Maestría en Educación

**Rivera Galarza, Jahaira** – Asistente Administrativo con Facturación Médica  
Universidad de Puerto Rico: Bachillerato en Sistemas de Oficina

**Rivera Rivera, José R.** – Técnico de Reparación de Computadoras y Redes  
Universidad Interamericana de PR: Bachillerato en Administración de Empresas  
Ponce Paramedical College: Diploma en Reparación de Computadoras y Especialista en Apoyo Técnico

**Rodríguez Barbosa, Jaime** – Refrigeración y Aire Acondicionado con Inverters  
NUC University División Técnica IBC: Diploma en Refrigeración y Aire Acondicionado con Inverters

**Rodríguez García, Natalie** – Barbería y Estilismo/Cosmetología/Master en Barbería  
Emma's Beauty Academy: Diploma en Barbería  
Emma's Beauty Academy: Diploma en Master en Barbería  
Instituto de Banca y Comercio: Diploma en Cosmetología

**Ruperto, Rosa M.** – Cosmetología / Barbería y Estilismo  
Instituto de Banca y Comercio- Barbería  
Emmas Beauty Academy- Cosmetología

**Santaliz Trabal, George** – Tecnología de Uñas  
Instituto de Banca y Comercio: Diploma en Tecnología de Uñas

**Santiago Nazario, Jonathan** – Artes Culinarias  
Instituto de Banca y Comercio: Diploma en Cocina Local  
e Internacional

**Torres Acosta, Mirna** - Terapeuta del Masaje  
Profesional  
JSG School of Massage Therapy: Certificación en  
Terapeuta de Masaje

**Torres Vega, Estefanie** – Estética  
NUC University División Técnica: Diploma en Estética

**Vega López, Amarillis** – Asistente de Maestro  
Preescolar  
Universidad del Este- BA en Educación

**Vega Muñiz, Félix** – Barbería y Estilismo  
Instituto Educativo Premier: Diploma en Barbería

**Velázquez Vargas, Reinaldo** – Culinary Arts  
Instituto de Banca y Comercio: Diploma en Cocina Local  
e Internacional

**Zayas Castro, Tatiana** – Técnico de Emergencias  
Médicas – Básico  
Instituto de Banca y Comercio: Diploma en Técnico de  
Emergencias Médicas

# Río Grande Region Administration & Faculty

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## Campus Administration

Sonia Pacheco.....	Chancellor
Vacant .....	Academic Affairs Dean
Héctor Morales .....	Operations Director
Joycell Ortiz .....	Admissions and Marketing Director
Ileana López .....	Student Accounts Director
René De La Mata .....	Financial Aid Director
Avelino Uogori.....	System Administrator
Sharon Cruz .....	Registrar
Marie L. Medina.....	Library Director
Emmanuel Muriel.....	Marketing Coordinator
Dilsa Rentas .....	Admissions Coordinator
Maritza Rivera .....	Placement Officer

## IBC Technical Division – Fajardo Administration

Riccia Burgos .....	Executive Director
Sophia Reyes .....	Academic Director
Frances Rivera .....	Evening Coordinator
Adriana N. Rodríguez.....	Library/Study Hall
María. I. Alvelo .....	Admissions
Stephanie Lebrón .....	Placement
Carlos E. Marquez.....	Retention
Carla Vázquez .....	Registrar
Vacant .....	Academic Counseling
Benito Vázquez.....	Financial Aid
Carlos C. Rodríguez .....	Student Accounts

## IBC Technical Division – Los Colobos Administration

Edgar Ayala.....	Executive Director
Dra. Jessica D. Meléndez .....	Academic Director
Wilbert Gutiérrez .....	Evening Coordinator
Emanuel Lugo .....	Library/Study Hall
Marlyn Rodriguez.....	Admissions
María V. De la Rosa .....	Placement
Vacante .....	Retention
Sharon Cruz .....	Registrar
Vacante .....	Academic Counseling
Aimmie Romero.....	Financial Aid
Yamilette Caraballo.....	Student Accounts

# Río Grande Region Faculty

## Campus Faculty

### *Academic Administrative Staff*

**Cordero Cirilo, Sheila** – Distance Education  
Coordinator  
Maestría en Educación, NOVA Southeastern University  
Bachillerato en Educación, Ana G. Mendez University

**Fernández Kercadó, Taysha** – Nursing Clinical  
Liaison  
Maestría en Ciencias en Enfermería, NUC University  
Bachillerato en Ciencias en Enfermería, CEM College

**Jaime Cartagena, Joanna** – Nursing Director  
Doctorado, Caribbean University  
Maestría en Ciencias en Enfermería, University of  
Puerto Rico  
Bachillerato en Ciencias en Enfermería, Interamerican  
University of Puerto Rico

**Matta Fontanet, David** – Health Sciences  
Coordinator  
Maestría en Educación, NUC University  
Bachillerato en Ciencias en Enfermería, Caribbean  
University

**Meléndez Delgado, Iris B.** – Business Administrator  
Collaborator  
Maestría en Administración de Empresas,  
Interamerican University of Puerto Rico  
Bachillerato en Administración de Empresas,  
Interamerican University of Puerto Rico

**Mena Salgado, Yackelin** – General Education  
Director  
Maestría, University of Phoenix  
Bachillerato, University of Puerto Rico

**Nieves Serrano, Karen** – Pharmacy Practice  
Coordinator  
Bachillerato en Administración de Empresas, NUC  
University

**Pujols Bernabel, Dismary** – Nursing Clinical Liason  
Maestría en Ciencias en Enfermería, NUC University  
Bachillerato en Ciencias en Enfermería, Ana G. Méndez  
University

### *Faculty*

**Agosto Robles, Glenda L.** – General Education  
Maestría, Ana G. Méndez University  
Bachillerato, Interamerican University of Puerto Rico

**Caraballo Díaz, Debora** – Nursing  
Maestría en Ciencias en Enfermería, Caribbean  
University  
Bachillerato en Ciencias en Enfermería, Dewey  
University

**Cortés Suárez, Elena** – Nursing  
Maestría en Ciencias en Enfermería, Dewey University  
Bachillerato en Ciencias en Enfermería, Dewey  
University

**Cruz Figueroa, Vilma** – Office Systems  
Maestría, Interamerican University of Puerto Rico  
Bachillerato, University of Puerto Rico

**García López, Marta** – Nursing  
Maestría en Ciencias en Enfermería, Ana G. Méndez  
University  
Bachillerato en Ciencias en Enfermería, Ana G. Méndez  
University

**Ibern Caraballo, José A.** – Dental  
Doctorado, New York University  
Bachillerato, Interamerican University of Puerto Rico

**Martínez Román, Natalia** – Nursing  
Maestría en Ciencias en Enfermería, NUC University  
Bachillerato en Ciencias en Enfermería, NUC University

**Pérez Rodríguez, Alice** – Nursing  
Maestría en Ciencias en Enfermería, Caribbean  
University  
Bachillerato en Ciencias en Enfermería, University of  
Puerto Rico

**Rivera Díaz, Alitza** – Nursing  
Maestría en Ciencias en Enfermería, Columbia Central  
University  
Bachillerato en Ciencias en Enfermería, Columbia  
Central University

**Rivera Díaz, Marilú** – Nursing  
Maestría en Ciencias en Enfermería, NUC University  
Bachillerato en Ciencias en Enfermería, NUC University

**Rivera Sosa, Airotciv** - Nursing  
Maestría en Ciencias en Enfermería, Ana G. Méndez  
University  
Bachillerato en Ciencias en Enfermería, San Juan  
University College

**Rodríguez Rodríguez, Myreichka** – Nursing  
Maestría en Ciencias en Enfermería, NUC University  
Bachillerato en Ciencias en Enfermería, NUC University

## **IBC Technical Division – Fajardo Faculty**

### ***Academic Administrative Staff***

**Romero Ortiz, Adbimael** – Master Lead Culinary Arts  
Maestría en Administración de Empresas, Especialidad  
en Administración de Recursos Humanos, Universidad  
Ana G. Méndez  
Diploma Cocina Local e Internacional, Instituto de  
Banca y Comercio, Vieques Learning site

### ***Faculty***

**Acosta Lugo, Aitza** – Artes y Tecnología  
Universidad Interamericana de Puerto Rico:  
Bachillerato en Ciencias; Diseño Gráfico Digital y  
Multimedios

**Albelo Esquilin Juan R** – Panadería y Repostería  
Caribbean Culinary Institute: NUC Division Técnica IBC

**Alicea Colón Luis E.** – Salud  
NUC University División Técnica IBC: Terapeuta de  
Masaje Profesional

**Alicea Colón, Paula Z.** - Salud  
NUC University División Técnica IBC: Terapeuta de  
Masaje Profesional

**Bonilla Meléndez, Felix O.** – Grado Asociado en  
Gastronomía y Gerencia Culinaria  
Universidad Ana G. Méndez: Bachelor in Science,  
Hospitality & Culinary Art

**Boria Gabino, Annette** – Enfermería  
Universidad Interamericana de Puerto Rico:  
Bachillerato en Ciencias de Enfermería

**Bosques Quiñones, Abigail** – Artes Culinarias  
Universidad Ana G. Méndez: Bachelor in Science,  
Hospitality & Culinary Art

**Carmona Molina, Marta** – Administración e  
Informática  
Universidad Interamericana de Puerto Rico:  
Bachillerato en Artes en Ciencias Secretarial

**Colón Camacho, Lynette L.** – Belleza  
NUC University División Técnica IBC- Estética  
NUC University División Técnica IBC- Nail Technology

**Colón Ferrer, Enrique** – Administración e Informática  
EDP University of Puerto Rico, Inc. – Bachelor's Degree  
Computer Programming

**Cruz, Pacheco, Carmen** – Belleza  
Escuela Superior Dr. Santiago Veve Calzada

**Cruz Orta María E.** – Belleza  
NUC University, Bayamón: Estética

**Del Valle López, Lorna** – Artes Culinarias  
NUC University División Técnica – IBC: Regional and  
International Cuisine

**Díaz Carrillo, Yesenia** – Artes Culinarias  
NUC University División Técnica – IBC: Cocina Local e  
Internacional

**Díaz Maldonado, Ferdinan** – Electricista  
NUC University División Técnica – IBC: Refrigeration  
and Air Conditioning with PLC  
Escuela Vocacional Metropolitana Miguel Such:  
Electricidad

**Díaz Maldonado, Fermín** – Electricista  
NUC University División Técnica – IBC: Plumbing  
Technician  
Escuela Vocacional Metropolitana Miguel Such:  
Electricidad

**Encarnación Encarnación, Darlyn** – Belleza  
NUC University División Técnica – IBC-Escorial: Estética

**Escalera Calderón, Ángel J.** – Handy Man  
NUC University División Técnica – IBC-Los Colobos:  
Técnico de Construcción

**Feliciano Torres, Juan** – Refrigeración y Aire  
Acondicionado con Inverters  
Institute of Multiple Technology (antes Electronic  
College and Computer Programming): Diploma Técnico  
de Refrigeración y Aire Acondicionado

**Frías Rivera, Bryan D.** – Artes y Tecnología  
Universidad Interamericana de Puerto Rico: Digital  
Graph Desing Multimedia  
**Gómez López, Tamara** – Belleza  
Nuc University División Técnica IBC-Fajardo: Estética

**González Rivera, Norma I.** –Cosmetología  
Nuc University División Técnica IBC – Cosmetología

**Heredia Ferrer, Paola** – Diseño Gráfico  
Universidad Interamericana de Puerto Rico: Digital  
Graph Desing Multimedia

**Jiménez Rivera, Tomas** – Electricista  
Escuela Técnica de Electricidad Inc.: Técnico  
Electricista

**Lanza Alvira, Gloria** – Enfermería  
Dewey University: Bachillerato en Ciencias de  
Enfermería

**Laureano Vázquez, Mariano** – Electricidad con  
Energía Renovable  
Universidad de Puerto Rico: Bachillerato en Ingeniería  
Eléctrica

**Lebrón de Jesús, Jorge** – Administración e  
Informática  
Universidad Ana G. Méndez: Master of Business  
Administration specialization in Strategic management  
and Leadership

**López Rivera, Joemelee** – Panadería y Repostería  
NUC University Division Técnica IBC: International  
Pastry and Baking

**Martínez Marcano, Gilberto M.** – Refrigeración  
Universidad de Puerto Rico: Bachillerato en Artes con  
Concentración en Educación Secundaria en Educación  
Ocupacional  
Huertas Junior College: Technology in Refrigeration  
and Air Conditioning

**Molina Rivera, Haichel L.** – Belleza  
NUC Univerity División Técnica IBC- Nail Technology

**Moulier Figueroa, Jossie** – Estética  
Neo-Esthetique European Institute: Estética

**Rivera Cidely, Harry R.** – Mixología y Bartending  
NUC University División Técnica IBC: Regional and  
Interational Cusine

**Rivera López, Grace Lee** - Belleza  
NUC University Division Técnica IBC: Nail Technology

**Rivera Rivera, Betzaida** – Salud  
Institute of Massage & Therapeutic Healing of Puerto  
Rico: Masaje Terapéutico

**Robinson Guerra, Aureo M.** – Artes Culinarias  
Florida Culinary Institute: Associate Degree in Culinary  
Arts

**Rodríguez Márquez, Carlos** - Belleza  
Universidad Interamericana de Puerto Rico:  
Bachillerato en Educación Secundaria

**Roldan Carrión, Yeneisha** – Personal Trainer  
Universidad Interamericana de Puerto Rico: Certificado  
Personal Trainer

**Rosa Maldonado, Anitza** – Salud  
Institute of Massage & Therapeutic Healing of Puerto  
Rico: Masaje Terapéutico

**Salgado Cintrón, Daniel A.** – Mixología y  
Bartending  
Asociación de Bartender de Puerto Rico: Bartending  
Induction Course

**Silva Otero Yiralis** – Administración e Informática  
NUC University Division Técnica - IBC Fajardo:  
Administrative Assistant with Medical Billing

**Tolentino, Destiny** – Panadería y Repostería  
Escuela Vocacional Ana Delia Flores Santana: Artes  
Culinarias

**Velázquez Camacho, Anna M.** – Panadería y  
Repostería  
NUC University Division Técnica - IBC Fajardo:  
International Pastry and Baking

**Velázquez Pérez, Jeniel** – Refrigeración  
Escuela Vocacional Ana Delia Flores Santana

## **IBC Technical Division – Los Colobos**

### **Faculty**

#### ***Academic Administrative Staff***

**Rosario Igartua, Pedro M.** – Master Lead de Artes  
Culinarias  
Grado Asociado, Artes Culinarias, NUC IBC

Diploma, Cocina Local e Internacional, Caribbean Culinary Institute

### **Faculty**

**Adorno Rosa, Jesús** – Electricidad con Energía Renovable  
Diploma, Electricidad, Instituto Educación Universal

**Alejandro Hill, Anilca** – Asistente de Maestro Preescolar  
Maestría, Enseñanza en Niñez Temprana, Universidad del Este  
Bachillerato, Educación Preescolar y Primaria, Universidad del Este

**Andujar Monge, Sharol** – Terapeuta de Masaje Profesional  
Diploma, Terapeuta de Masaje, NUC División Técnica IBC

**Benitez Jiménez, Zenaida**- Terapeuta de Masaje Profesional  
Bachillerato, Trabajador Social, Caribbean University  
Bachillerato, Justicia Criminal, Caribbean University  
Diploma, Terapeuta de Masaje Profesional, NUC University División Técnica IBC

**Chárriez Normandía, Maximiliane E.**- General Inglés  
Maestría, Creación Literaria, Universidad de Sagrado Corazón  
Bachillerato, Educación Elemental, Universidad de Sagrado Corazón

**Collazo Torres, José A.**- Barbería y Estilismo  
Diploma, Técnico de Barbería, John Dewey College

**Cruz Moya, Laura Y.**- Profesora de Cafetería  
Diploma, Cocina Local e Internacional- Instituto de Banca y Comercio

**Cruz Vargas, Jaime**- Electricidad con Energía Renovable  
Diploma, Refrigeración con Aire Acondicionado, NUC University  
Licencia de Perito Electricista

**Delgado Delgado, Yashira M.**- Tecnología de Uñas  
Bachillerato, Gerencia, Universidad Ana G. Méndez  
Grado Asociado, Administración de Oficina con Facturación, CEM  
Diploma, Técnica de Uñas, Instituto de Banca  
Diploma, Cosmetología, Century College

**Escalera Corchado, Wilfredo**- Técnico de Construcción  
Bachillerato, Educación Secundaria Vocacional Industrial, Universidad del Turabo  
Grado Asociado, Administración de Empresas-Gerencia, Universidad del Este

**Estrella López de Victoria, Jorge F.**- Artes Culinarias  
Diploma, Artes Culinarias, National University College  
Diploma, Repostería, National University College  
Diploma, Diseño de Interiores- Universidad de Puerto Rico

**Figueroa Calderón, Zoe**- Tecnología de Uñas  
Diploma, Técnica de Uñas, NUC University División Técnica IBC  
Diploma, Artes Culinarias, Escuela Hotelera de P.R.

**Flores Sánchez, Gamelee**- Terapeuta de Masaje Profesional  
Diploma, Masajista Profesional, National Fashion and Beauty College

**Garces Matos, Marisabel**- Cosmetología  
Diploma, Cosmetología Básica, Metro College Inc.  
Diploma, Barbería y Estilismo, Instituto de Banca y Comercio

**García Pérez, Sugeily**- Enfermería Práctica con Electrocardiografía (EKG)  
Bachillerato, Ciencia de la Salud, Universidad Metropolitana de P.R.  
Grado Asociado, Enfermería, Instituto Tecnológico de P.R.

**González Resto, José A.**- Refrigeración y Aire Acondicionado con Inverters  
Diploma, Refrigeración y Aire Acondicionado, York College

**Hernández Vega, Luis A.**- Refrigeración y Aire Acondicionado con Inverters  
Diploma, Refrigeración y Aire Acondicionado con Inverters, NUC University

**León Carmona, Louis F.**- Artes Culinarias  
Diploma, Cocina Local e Internacional, Instituto de Banca y Comercio

**Márquez Camacho, Ilka D.**- Asistente Administrativo con Facturación Médica



Bachillerato, Educación K-3, Universidad Interamericana de P.R.  
Grado Asociado, Asistente Administrativo con Facturación Médica, NUC University IBC

**Martí Ramírez, Luis M.-** Técnico de Emergencias Médicas-Básico  
Bachillerato, Enfermería Generalista, John Dewey College  
Grado Asociado, Enfermería, Instituto de Educación Universal  
Diploma, Enfermo Práctico, Instituto de Educación Universal  
Diploma, Técnico de Emergencias Médicas, NUC IBC

**Mayol Llanos, Edris-** Asistente de Maestro Preescolar Maestría, Educación en Administración Escolar, Cambridge College  
Bachillerato, Educación Elemental, Universidad de P.R.

**Muriel Rivera, Gianni L.-** Estética  
Diploma, Esteticista, Neo Esthetique European Institute

**Nieves Osorio, Nannette Y.-** Panadería y Repostería Internacional  
Diploma, Panadería y Repostería Internacional, Ivaem College  
Diploma, Confección y Decoración de Bizcochos, Ivaem College

**Ortiz Rodríguez, Widaly-** Asistente de Maestro Preescolar  
Bachillerato, Educación K-3, Universidad de Puerto Rico  
Bachillerato, Educación 4to-6th, UMET

**Rivera Rolón, Migdalia-** Cosmetología  
Diploma, Cosmetología, Academia de Belleza Borinquen

**Rivera Saldaña Angela L.-** Estética  
Diploma, Especialista en Estética, Academia de Estética Lanim

**Soto Díaz, Leyda-** Tecnología de Uñas  
Diploma, Tecnología de Uñas, NUC IBC  
Diploma, Tecnología de Información, National College  
Diploma, Delineante, Instituto de Banca

**Vázquez Fonseca, Wanda-** Estética  
Maestría, Educación Internacional, Academia de Belleza Centro América  
Diploma, Estética Facial Corporal y Terapia de Masaje, Organic Nails

**Viera Hernández, Lisayda-** Asistente Administrativo con Facturación Médica  
Bachillerato, Administración de Sistemas de Oficina, Universidad de Puerto Rico  
Grado Asociado, Administración de Sistemas de Oficina, Universidad de Puerto Rico

## ***ACADEMIC OFFERING BY LOCATIONS***

# Arecibo Region

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## ARECIBO CAMPUS

### Doctoral Degree

- Business Administration with Specialty in Strategic Management (Online only)

### Master's Degree

- Business Administration
- Business Administration with specialty in Digital Marketing
- Business Administration with a specialty in Healthcare Management
- Business Administration with specialty in Human Resources
- Education with specialty in Assessment and Effectiveness
- Education with specialty in Educational Leadership
- Industrial Organizational Psychology
- Information Technology
- Science in Nursing with specialty in Education
- Science in Nursing with specialty in Medical-Surgical and Role in Education
- Science in Nursing with specialty in Medical-Surgical and Role in Management and Executive Leadership

### Post Baccalaureate

- Accounting
- Management and Educational Leadership (Online only)

### Bachelor's Degree

- Business Administration with major in Accounting
- Business Administration with major in Business Intelligence
- Business Administration with major in Finance
- Business Administration with major in Healthcare Management
- Business Administration with major in Human Resources
- Business Administration with major in Project Management
- Business Administration with major in Social Media Marketing
- Criminal Justice
- Criminal Justice with major in Forensic Investigation
- Diagnostic Medical Sonography with a Concentration in Cardiovascular Technology
- Information Technology, Networks and Security

- Science in Nursing
- Science in Psychology
- Sciences in Nursing (RN to BSN)

### Associate's Degree

- Applied Science in Clinical Sonography
- Business Administration in Entrepreneurship
- Criminal Justice
- Cybersecurity
- Dental Assistant with Expanded Functions
- Electrical Engineering Technology in Renewable Energy
- Leadership in Public Security
- Medical Billing and Coding
- Nursing
- Pharmacy Technician

### Diploma

- Practical Nursing

*Some courses for some of these programs may be offered through distance education.*

## IBC TECHNICAL DIVISION ARECIBO

### Diploma

- Barbering and Hairstyling
- Business Administration Specialist
- Cosmetology
- Culinary Arts
- Electricity with Renewable Energy
- Emergency Medical Technician-Basic
- Esthetics
- International Pastry and Baking
- Mixology/Bartending
- Nail Technology
- Professional Massage Therapist
- Refrigeration and Air Conditioning with Inverters
- Training and Physical Conditioning Technician

## IBC TECHNICAL DIVISION MANATÍ

### Associate's Degree

- Gastronomy and Culinary Management
- Emergency Medical Technician-Paramedic

### Diploma

- Administrative Assistant with Medical Billing
- Barbering and Hairstyling
- Business Administration Specialist
- Computer Repairs and Network Technician

- Construction Technician
- Cosmetology
- Culinary Arts
- Electricity with Renewable Energy
- Esthetics
- Graphic Design
- International Pastry and Baking
- Mixology/Bartending
- Nail Technology
- Plumbing Technician
- Professional Massage Therapist
- Refrigeration and Air Conditioning with Inverters
- Training and Physical Conditioning Technician

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*Not all programs are available at each campus. For information regarding the availability of programs and courses offered at each campus, please contact the campus admissions office.*

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# Bayamón Region

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## BAYAMÓN CAMPUS

### *Onground Programs*

#### **Doctoral Degree**

- Business Administration with Specialty in Strategic Management

#### **Master's Degree**

- Business Administration
- Business Administration with specialty in Digital Marketing
- Business Administration with a specialty in Healthcare Management
- Business Administration with specialty in Human Resources
- Business Administration with Specialty in Management
- Business Administration with specialty in Planning and Strategy
- Industrial Organizational Psychology
- Information Technology
- Science in Nursing with specialty in Adult and the Elderly with a role in Management or Education
- Science in Nursing with specialty in Medical-Surgical and Role in Education
- Science in Nursing with specialty in Medical-Surgical and Role in Management and Executive Leadership
- Science in Nursing with specialty in Education

#### **Post Baccalaureate**

- Accounting

#### **Bachelor's Degree**

- Business Administration with major in Accounting
- Business Administration with major in Healthcare Management
- Business Administration with major in Human Resources
- Business Administration with major in Finance
- Business Administration with major in Management
- Business Administration with major in Project Management
- Business Administration with major in Social Media Marketing
- Criminal Justice
- Criminal Justice with major in Forensic Investigation

- Diagnostic Medical Sonography with a Concentration in Cardiovascular Technology
- Information Technology, Networks and Security
- Information Technology with major in Information Assurance and Security
- Science in Nursing
- Science in Nursing (RN to BSN)
- Science in Psychology

#### **Associate's Degree**

- Applied Science in Clinical Sonography
- Business Administration in Entrepreneurship
- Criminal Justice
- Cybersecurity
- Dental Assistant with Expanded Functions
- Electrical Engineering Technology in Renewable Energy
- Leadership in Public Security
- Medical Billing and Coding
- Nursing
- Pharmacy Technician
- Physical Therapist Assistant

#### **Diploma**

- Practical Nursing

*Some courses for some of the above mentioned programs may be offered through distance education.*

## ONLINE DIVISION

The following programs are offered fully online and have no residency requirements, with the exception of those with an asterisk (\*):

### Doctoral Degree

- Business Administration with Specialty in Strategic Management

### Master's Degree

- Business Administration
- Business Administration with specialty in Digital Marketing
- Business Administration with a specialty in Healthcare Management
- Business Administration with specialty in Human Resources
- Business Administration with Specialty in Management
- Business Administration with specialty in Planning and Strategy
- Education with specialty in Assessment and Effectiveness
- Education with specialty in Curriculum
- Education with specialty in Educational Leadership
- Information Technology
- Role in Management and Executive Leadership
- Science in Nursing with specialty in Education
- Science in Nursing with Specialty in Adult and the Elderly with a role in Management or Education
- Science in Nursing with specialty in Medical-Surgical and Role in Management and Executive Leadership
- Science in Nursing with specialty in Medical-Surgical and Role in Education

### Post Baccalaureate

- Accounting
- Management and Educational Leadership
- Online Education

### Bachelor's Degree

- Business Administration with major in Accounting
- Business Administration with major in Business Intelligence
- Business Administration with major in Finance
- Business Administration with major in General Business
- Business Administration with major in

- Healthcare Management
- Business Administration with major in Human Resources
- Business Administration with major in International Business
- Business Administration with major in Management
- Business Administration with major in Project Management
- Business Administration with major in Social Media Marketing
- Criminal Justice
- Criminal Justice with major in Forensic Investigation
- Criminal Justice with major in Homeland Security
- Information Technology Networks and Security
- Information Technology with major in Information Assurance & Security
- Information Technology with major in Network Administration
- Information Technology with major in Software Analysis & Development
- Science in Nursing\*
- Science in Psychology
- Sciences in Nursing (RN to BSN)

### Associate's Degree

- Accounting
- Business Administration
- Business Administration in Entrepreneurship
- Criminal Justice
- Cybersecurity
- Leadership in Public Security
- Medical Billing and Coding
- Nursing\*
- Web Application Development

*\*The nursing programs (with exception of the RN to BSN which is fully online) includes clinical laboratories and internships, that are offered on ground.*

## IBC TECHNICAL DIVISION BAYAMÓN

### Associate's Degree

- Gastronomy and Culinary Management
- Emergency Medical Technician-Paramedic

### Diploma

- Administrative Assistant with Medical Billing
- Barbering and Hairstyling
- Business Administration Specialist
- Computer Repairs and Network Technician

- Construction Technician
- Conversational English
- Cosmetology
- Culinary Arts
- Electricity with Renewable Energy
- Emergency Medical Technician-Basic
- Esthetics
- Funeral Home Management and Embalming
- Graphic Design
- International Pastry and Baking
- Mixology/Bartending
- Nail Technology
- Plumbing Technician
- Preschool Teacher Assistant
- Professional Massage Therapist
- Refrigeration and Air Conditioning with Inverters
- Training and Physical Conditioning Technician

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*Not all programs are available at each campus. For information regarding the availability of programs and courses offered at each campus, please contact the campus admissions office.*

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# Caguas Region

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## CAGUAS CAMPUS

### Doctoral Degree

- Business Administration with Specialty in Strategic Management (Online only)

### Master's Degree

- Business Administration
- Business Administration with specialty in Digital Marketing
- Business Administration with a specialty in Healthcare Management
- Business Administration with specialty in Human Resources
- Business Administration with specialty in Planning and Strategy
- Industrial Organizational Psychology
- Information Technology
- Science in Nursing with specialty in Education
- Science in Nursing with specialty in Medical-Surgical and Role in Education
- Science in Nursing with specialty in Medical-Surgical and Role in Management and Executive Leadership

### Post Baccalaureate

- Accounting
- Management and Educational Leadership (Online only)

### Bachelor's Degree

- Business Administration with major in Accounting
- Business Administration with major in Finance
- Business Administration with major in Healthcare Management
- Business Administration with major in Human Resources
- Business Administration with major in Management
- Business Administration with major in Project Management
- Business Administration with major in Social Media Marketing
- Criminal Justice
- Criminal Justice with major in Forensic Investigation
- Diagnostic Medical Sonography with a Concentration in Cardiovascular Technology
- Information Technology, Networks and Security

- Science in Nursing
- Science in Psychology
- Sciences in Nursing (RN to BSN)

### Associate's Degree

- Applied Science in Clinical Sonography
- Business Administration in Entrepreneurship
- Criminal Justice
- Leadership in Public Security
- Medical Billing and Coding
- Nursing
- Pharmacy Technician

### Diploma

- Practical Nursing

*Some courses for some of these programs may be offered through distance education.*

## IBC TECHNICAL DIVISION CAGUAS

### Associate's Degree

- Gastronomy and Culinary Management
- Emergency Medical Technician-Paramedic

### Diploma

- Administrative Assistant with Medical Billing
- Banking Operations
- Barbering and Hairstyling
- Business Administration Specialist
- Computer Repairs and Network Technician
- Construction Technician
- Cosmetology
- Culinary Arts
- Electricity with Renewable Energy
- Emergency Medical Technician-Basic
- Esthetics
- Funeral Home Management and Embalming
- Graphic Design
- International Pastry and Baking
- Mixology/Bartending
- Nail Technology
- Plumbing Technician
- Preschool Teacher Assistant
- Professional Massage Therapist
- Refrigeration and Air Conditioning with Inverters
- Training and Physical Conditioning Technician

## IBC TECHNICAL DIVISION GUAYAMA

### Diploma

- Administrative Assistant with Medical Billing

- Barbering and Hairstyling
- Business Administration Specialist
- Computer Repairs and Network Technician
- Construction Technician
- Cosmetology
- Culinary Arts
- Electricity with Renewable Energy
- Esthetics
- International Pastry and Baking
- Mixology/Bartending
- Nail Technology
- Plumbing Technician
- Preschool Teacher Assistant
- Professional Massage Therapist
- Professional Pet Groomer
- Refrigeration and Air Conditioning with Inverters
- Training and Physical Conditioning Technician
- Veterinary Assistant
- Veterinary Assistant with Pet Grooming

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*Not all programs are available at each campus. For information regarding the availability of programs and courses offered at each campus, please contact the campus admissions office.*

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# Escorial Region

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## ESCORIAL CAMPUS

### Bachelor's Degree

- Business Administration with major in Accounting
- Business Administration with major in Healthcare Management
- Business Administration with major in Management
- Information Technology, Networks and Security
- Science in Nursing
- Science in Nursing (RN a BSN)

### Associate's Degree

- Business Administration in Entrepreneurship
- Cybersecurity
- Dental Assistant with Expanded Functions
- Emergency Medical Technician - Paramedic
- Gastronomy and Culinary Management
- Medical Billing and Coding
- Nursing
- Pharmacy Technician

### Diploma

- Barbering and Hairstyling
- Business Administration Specialist
- Computer Repairs and Network Technician
- Construction Technician
- Cosmetology
- Culinary Arts
- Electricity with Renewable Energy
- Esthetics
- Graphic Design
- International Pastry and Baking
- Mixology/Bartending
- Nail Technology
- Plumbing Technician
- Practical Nursing
- Preschool Teacher Assistant
- Professional Massage Therapist
- Refrigeration and Air Conditioning with Inverters
- Training and Physical Conditioning Technician

*Some courses for some of these programs may be offered through distance education.*

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# Mayagüez Region

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## MAYAGÜEZ CAMPUS

### Doctoral Degree

- Business Administration with Specialty in Strategic Management

### Master's Degree

- Business Administration
- Business Administration with specialty in Digital Marketing
- Business Administration with a specialty in Healthcare Management
- Business Administration with specialty in Human Resources
- Education with specialty in Assessment and Effectiveness
- Industrial Organizational Psychology
- Information Technology
- Science in Nursing with specialty in Education
- Science in Nursing with specialty in Medical-Surgical and Role in Education
- Science in Nursing with specialty in Medical-Surgical and Role in Management and Executive Leadership

### Post Baccalaureate

- Accounting
- Management and Educational Leadership (Online only)

### Bachelor's Degree

- Business Administration with major in Accounting
- Business Administration with major in Finance
- Business Administration with major in Healthcare Management
- Business Administration with major in Human Resources
- Business Administration with major in Project Management
- Business Administration with major in Social Media Marketing
- Criminal Justice with major in Forensic Investigation
- Diagnostic Imaging, concentration in CT and MRI
- Diagnostic Medical Sonography with a Concentration in Cardiovascular Technology
- Information Technology, Networks and Security

- Science in Psychology
- Sciences in Nursing
- Sciences in Nursing (RN to BSN)

### Associate's Degree

- Applied Science in Clinical Sonography
- Applied Science in Radiologic Technology
- Business Administration in Entrepreneurship
- Cybersecurity
- Dental Assistant with Expanded Functions
- Leadership in Public Security
- Medical Billing and Coding
- Nursing
- Optical Sciences
- Pharmacy Technician

### Diploma

- Practical Nursing

*Some courses for some of these programs may be offered through distance education.*

## **IBC TECHNICAL DIVISION AGUADILLA**

### **Diploma**

- Administrative Assistant with Medical Billing
- Barbering and Hairstyling Business Administration Specialist
- Computer Repairs and Network Technician
- Cosmetology
- Culinary Arts
- Electricity with Renewable Energy
- Esthetics
- Graphic Design
- International Pastry and Baking Laboratory Assistant with Electronic Processing
- Nail Technology
- Preschool Teacher Assistant
- Professional Massage Therapist
- Professional Pet Groomer
- Training and Physical Conditioning Technician
- Veterinary Assistant
- Veterinary Assistant with Pet Grooming

- Electricity with Renewable Energy
- Emergency Medical Technician-Basic
- International Pastry and Baking
- Mixology/Bartending
- Nail Technology
- Plumbing Technician
- Preschool Teacher Assistant
- Professional Massage Therapist
- Refrigeration and Air Conditioning with Inverters

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*Not all programs are available at each campus. For information regarding the availability of programs and courses offered at each campus, please contact the campus admissions office.*

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## **IBC TECHNICAL DIVISION MAYAGÜEZ**

### **Diploma**

- Barbering and Hairstyling
- Business Administration Specialist
- Computer Repairs and Network Technician
- Construction Technician
- Cosmetology
- Culinary Arts
- Electricity with Renewable Energy
- Emergency Medical Technician-Basic
- Esthetics
- Funeral Home Management and Embalming
- Graphic Design
- International Pastry and Baking
- Nail Technology
- Plumbing Technician
- Preschool Teacher Assistant
- Professional Massage Therapist
- Refrigeration and Air Conditioning with Inverters

## **IBC TECHNICAL DIVISION MOCA**

### **Diploma**

- Administrative Assistant with Medical Billing
- Barbering and Hairstyling
- Construction Technician
- Cosmetology
- Culinary Arts

# Ponce Region

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## PONCE CAMPUS

### Doctoral Degree

- Business Administration with Specialty in Strategic Management\*

### Master's Degree

- Business Administration with specialty in Digital Marketing
- Business Administration with a specialty in Healthcare Management
- Business Administration with specialty in Human Resources
- Industrial Organizational Psychology
- Information Technology
- Science in Nursing with specialty in Education
- Science in Nursing with specialty in Medical-Surgical and Role in Education
- Science in Nursing with specialty in Medical-Surgical and Role in Management and Executive Leadership

### Post Baccalaureate

- Accounting
- Management and Educational Leadership (Online only)

### Bachelor's Degree

- Business Administration with major in Accounting
- Business Administration with major in Finance
- Business Administration with major in Healthcare Management
- Business Administration with major in Human Resources
- Business Administration with major in Project Management
- Business Administration with major in Social Media Marketing
- Criminal Justice
- Criminal Justice with major in Forensic Investigation
- Information Technology Networks and Security
- Diagnostic Imaging, concentration in CT and MRI
- Diagnostic Medical Sonography with a Concentration in Cardiovascular Technology
- Science in Nursing
- Science in Psychology

- Sciences in Nursing (RN to BSN)

### Associate's Degree

- Applied Science in Clinical Sonography
- Applied Science in Radiologic Technology
- Business Administration in Entrepreneurship
- Criminal Justice
- Cybersecurity
- Dental Assistant with Expanded Functions
- Leadership in Public Security
- Medical Billing and Coding
- Nursing
- Optical Sciences
- Pharmacy Technician

### Diploma

- Practical Nursing

*Some courses for some of these programs may be offered through distance education.*

*\* Students will take online courses and onground courses at the Mayagüez Campus.*

## IBC TECHNICAL DIVISION PONCE

### Associate's Degree

- Gastronomy and Culinary Management
- Emergency Medical Technician-Paramedic

### Diploma

- Administrative Assistant with Medical Billing
- Barbering and Hairstyling
- Business Administration Specialist
- Computer Repairs and Network Technician
- Construction Technician
- Cosmetology
- Culinary Arts
- Electricity with Renewable Energy
- Emergency Medical Technician-Basic
- Esthetics
- Funeral Home Management and Embalming
- Graphic Design
- International Pastry and Baking
- Mixology/Bartending
- Nail Technology
- Plumbing Technician
- Preschool Teacher Assistant
- Professional Massage Therapist
- Refrigeration and Air Conditioning with Inverters
- Training and Physical Conditioning Technician

## IBC TECHNICAL DIVISION YAUCO

### Diploma

- Administrative Assistant with Medical Billing
- Barbering and Hairstyling
- Business Administration Specialist
- Computer Repairs and Network Technician
- Construction Technician
- Cosmetology
- Culinary Arts
- Electricity with Renewable Energy
- Emergency Medical Technician-Basic
- Esthetics
- Graphic Design
- International Pastry and Baking
- Mixology/Bartending
- Nail Technology
- Preschool Teacher Assistant
- Professional Massage Therapist
- Refrigeration and Air Conditioning with Inverters
- Training and Physical Conditioning Technician

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# Río Grande Region

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## RÍO GRANDE CAMPUS

### Doctoral Degree

- Business Administration with Specialty in Strategic Management (Online only)

### Master's Degree

- Business Administration with specialty in Digital Marketing
- Business Administration with a specialty in Healthcare Management
- Business Administration with specialty in Human Resources
- Business Administration
- Education with specialty in Educational Leadership
- Education with specialty with specialty in Assessment and Effectiveness\*\*
- Industrial Organizational Psychology
- Information Technology
- Science in Nursing with specialty in Education
- Science in Nursing with specialty in Medical-Surgical and Role in Education
- Science in Nursing with specialty in Medical-Surgical and Role in Management and Executive Leadership

### Post Baccalaureate

- Accounting
- Management and Educational Leadership (Online only)

### Bachelor's Degree

- Business Administration with major in Accounting
- Business Administration with major in Business Intelligence
- Business Administration with major in Finance
- Business Administration with major in General Business\*\*
- Business Administration with major in Healthcare Management
- Business Administration with major in Human Resources
- Business Administration with major in Management
- Business Administration with major in Project Management
- Business Administration with major in Social Media Marketing
- Criminal Justice

- Criminal Justice with major in Forensic Investigation
- Diagnostic Medical Sonography with a Concentration in Cardiovascular Technology
- Information Technology Networks and Security
- Information Technology with major in Information Assurance and Security
- Science in Nursing
- Science in Psychology
- Sciences in Nursing (RN to BSN)

### Associate's Degree

- Applied Science in Radiologic Technology
- Applied Sciences in Clinical Sonography
- Business Administration in Entrepreneurship
- Criminal Justice
- Cybersecurity
- Dental Assistant with Expanded Functions
- Electrical Engineering Technology in Renewable Energy
- Leadership in Public Security
- Medical Billing and Coding
- Nursing
- Pharmacy Technician

### Diploma

- Practical Nursing

*Some courses for some of these programs may be offered through distance education.*

*\*\*Not currently offered for new students.*

## IBC TECHNICAL DIVISION FAJARDO

### Associate's Degree

- Gastronomy and Culinary Management

### Diploma

- Administrative Assistant with Medical Billing
- Barbering and Hairstyling
- Construction Technician
- Cosmetology
- Culinary Arts
- Electricity with Renewable Energy
- Esthetics
- Graphic Design
- International Pastry and Baking
- Mixology/Bartending
- Nail Technology
- Professional Massage Therapist
- Refrigeration and Air Conditioning with Inverters

- Training and Physical Conditioning Technician

## **IBC TECHNICAL DIVISION LOS COLOBOS**

### **Diploma**

- Administrative Assistant with Medical Billing
- Barbering and Hairstyling
- Business Administration Specialist
- Construction Technician
- Cosmetology
- Culinary Arts
- Electricity with Renewable Energy
- Emergency Medical Technician-Basic
- Esthetics
- International Pastry and Baking
- Mixology/Bartending
- Nail Technology
- Preschool Teacher Assistant
- Professional Massage Therapist
- Refrigeration and Air Conditioning with Inverters
- Training and Physical Conditioning Technician

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