



**An Academic Unit of NUC University**

# **GENERAL CATALOG**

## **2026**

**Revised December 26, 2025**

Notwithstanding anything contained in this Catalog, the institution, reserves the right, wherever it deems advisable: (1) to change or modify its tuition and fees, (2) to withdraw, cancel, reschedule or modify any course, program of study, degree or any requirements in connection with the foregoing, and (3) to change or modify any academic or other policy. Changes in information in this Catalog and new academic regulations will be published as applicable. It is the responsibility of each student to ascertain current information that pertains to the individuals program particularly with regard to satisfaction of degree requirements, through frequent reference to registration bulletins, the institution's webpages, and by consultation with the student's advisor, the Academic Affairs Office, and other appropriate student services offices such as the Registrar or Financial Aid. In preparing this catalog, efforts are made to provide pertinent and accurate information; however, the institution assumes no responsibility for Catalog errors or omissions.

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The university does not discriminate against anyone based on race, color, gender, sex, religion, age, political ideas, ethnic origin, disability, pregnancy, military, or civil status.

## **DIRECTORY**

Ponce de León Avenue #61,  
San Juan, PR 00917  
(787) 982-3000

### **CAGUAS**

Road 183, Km. 1.7  
Exit towards San Lorenzo PO Box 8517  
Caguas, PR 00726  
Tel. (787) 743-4041  
Tel. 1-800-981-4877  
Fax (787) 744-7031

### **BAYAMÓN**

Corujo Industrial Park  
Road 2, Km. 15.2, 46 C Street  
Bayamón, PR 00959  
Tel. (787) 665-7910

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## **HISTORY**

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, criminal justice, psychology, construction trades, culinary arts, information technology, arts, beauty, and aviation. It was incorporated under the laws of the Commonwealth of Puerto Rico in 1982 under the name of National College of Business and Technology. 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. In August 2025, Columbia Central University, another institution owned by Renovus, merged into NUC, expanding NUC's campus structure in Puerto Rico.

## **BOARD OF DIRECTORS**

The governance 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 Bennett ..... Non-Voting Member

# MISSION, VISION, INSTITUTIONAL PRIORITIES

## 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

- **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.
- **Centers of Excellence** - Elevate certain areas of study such as Healthcare, Business, and Construction Trade to Center of Excellence status
- **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.
- **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.
- **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.
- **Financial Strength** - Achieve administrative capability and successfully conduct the institution's financial operations.

## INSTITUTIONAL LEARNING GOALS

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:

- **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.

- **Communication skills**

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

- **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.

- **Logical reasoning**

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

- **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.

- **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.

- **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.

# AUTHORIZATIONS AND ACCREDITATIONS

## **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/](http://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](http://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), Columbia Central University (CCU), 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 five 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), Columbia Central University (CCU), and Hillsboro Aero Academy (HAA). Information about NUC, NUC-IBC, NUC-FTC, The DAVE School, CCU, and HAA is available <https://nuc.edu/>, <https://tecnicos.nuc.edu/>, <https://ftccollege.edu/>, <https://dave.nuc.edu/>, <https://columbiacentral.edu/>, and <https://flyhaa.com/>.

## **Programmatic Accreditation**

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

The associate and baccalaureate (including the RN to BSN option) nursing programs at NUC University at the Bayamón (including online), Arecibo, Caguas, Escorial, Mayagüez, Ponce and Río Grande campuses and the Columbia Central University Bayamón and Caguas campuses are accredited by the:

Accreditation Commission for Education in Nursing (ACEN)

3390 Peachtree Road NE, Suite 1400

Atlanta, GA, 30326

Phone: 404-975-5000, web site: [https://www.acenursing.org](http://www.acenursing.org)

The most recent accreditation decision made by the ACEN Board of Commissioners for the associate and baccalaureate nursing programs is continuing accreditation.

## **Authorizations**

### **Veterans Affairs (VA)**

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 the institution 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.

**American Registry of Radiologic Technologists (ARRT)**

Furthermore, CCU partners with the **American Registry of Radiologic Technologists (ARRT)** to make our students' journeys toward their ARRT credential(s) as smooth as possible. The educational programs that are eligible are the Associate Degree in Technological Radiology, which is offered at Caguas and Bayamón, and the Associate Degree in Medical Sonography, which is offered at Caguas Campus. To view the recognized educational programs please access: <https://www.arrt.org/pages/about-the-profession/learn-about-the-profession/recognized-educational-programs>.

*The availability of academic programs may vary based on the approvals or recognitions held by CCU locations from the regulatory agencies mentioned above.*

## PROGRAM OFFERING BY LOCATION

### BAYAMÓN

- Bachelor's Degree in Nursing Science
- Bachelor's Degree of Science in Diagnostic Imaging with concentration in CT and MRI
- Associate Degree in Radiological Technology
- Associate Degree in Medical Sonography
- Associate Degree in Optical Sciences
- Associate Degree in Cardiac and Vascular Technology
- Associate Degree in Nursing Sciences
- Vocational Technical Certificate in Laboratory Assistant with Electronic Processing
- Vocational Technical Certificate in Veterinarian Assistant
- Vocational Technical Certificate in Professional Pet Groomer
- Vocational Technical Certificate in Medical Secretary with Insurance Billing Program

### CAGUAS

- Master's Degree in Business Administration, specialty in Management
- Master's Degree in Business Administration, specialty in Human Resources
- Master's Degree in Business Administration, specialty in Health Organizations Management
- Master of Science in Nursing, specialty in Adults and the Elderly, with a choice of a role in Education or Management.
- Bachelor's Degree in Business Administration
- Bachelor's Degree in Information Technology, Networks and Security
- Bachelor's Degree of Science in Nursing RN to BSN
- Bachelor's Degree in Nursing Science
- Bachelor's Degree of Science in Diagnostic Imaging with concentration in CT and MRI
- Bachelor's Degree in Diagnostic Medical Sonography with a Concentration in Cardiovascular Technology
- Associate Degree in Web Application Development
- Associate Degree in Cyber Security
- Associate of Science Degree in Nursing
- Associate Degree in Business Administration
- Associate Degree in Pharmacy Technician
- Associate Degree in Audio
- Associate Degree in Cardiac and Vascular Technology
- Associate Degree in Optical Sciences
- Associate Degree in Radiological Technology
- Associate Degree in Medical Sonography
- Vocational Technical Certificate in Technical Support
- Vocational Technical Certificate in Computer Repair Technician
- Vocational Technical Certificate in Preschool Teacher Assistant
- Vocational Technical Certificate in Professional Pet Groomer
- Vocational Technical Certificate in Medical Secretary with Medical Insurance Billing
- Vocational Technical Certificate in Veterinary Assistant
- Vocational Technical Certificate in Laboratory Assistant with Electronic Processing

## **LIBRARY SYSTEM**

### **BAYAMÓN**

#### **Physical Facilities**

The Bayamón Campus physical facilities consist of a Study Room with 9 tables, 2 rooms for group study and Development of Information Competencies, a technology area, an area for audiovisual resources, 2 cubicles for independent study, a service area for student and the academic community, work area for the librarian, and a collections and magazines area which supports the academic offering.

#### **Technological Resources**

In the access to information area, it consists of aiding and the availability of technological resources to all the student community for their support and performance of academic work. There are 10 computers with internet access and with Microsoft Office program. Each computer terminal has access to the virtual Library, the physically available Resources catalog, the Professors' Digital Reserve, and the guidelines for the Information Competency Development Program.

#### **Printed Collection**

Our collection consists of 867 volumes, bibliographic resources, and magazines in Spanish and English which supports the different academic offerings in our campus such as Radiology, Sonography, Pet Grooming, Veterinary Assistant, Laboratory Assistant, Cardiovascular, Optical Assistant, and Nursing. These resources can be accessed through the Mandarin automated public catalog from any computer or mobile device.

#### **Digital Collections**

The Virtual Library contains databases and provides access to virtual collections which supports our academic offering. The databases consist of EBSCO responding to all disciplines offered, Mandarin (OPAC) databases on physically available resources, access to the World Library database, magazines, and newspapers.

#### **Audiovisual Resources**

Audiovisual resources are used in educational institutions as a means that allows the development of different learning strategies. In addition, they constitute a useful and effective resource, both for pedagogical activities and for greater library dynamics and training of users. Our audiovisual resources consist of 5 projectors, 4 laptops, 4 electric extensions, 1 DVD, 3 speakers, and 4 pointers. These resources loans are made in the library service area according to the established rules and procedures.

#### **Information Competencies**

Information competencies equip your learners with the critical thinking skills necessary to become independent lifelong learners. The American Library Association (ALA) defines information skills as a set of skills necessary to find, retrieve, analyze, and use information (1989). The information competence offered by the Librarian responds to the needs of the students and academic community, for this reason it is on varied topics, for the development and successful achievement of those objectives. Achievement and process evaluation is done with the purpose of improvement. The user is trained to handle, solve their information problems, plan, develop and improve their intellectual work. The development of critical, creative, and ethical thinking is encouraged.

### **CAGUAS**

#### **Physical Facilities**

The Efraín Solá Bezares Library is the first building to be found at the campus main entrance in a two-

story structure. The first of these is equipped with tables for collaborative study and it is there where the printed collection is located as well as the Public Services area. It has an area of preferential use for people with disabilities with four computers, one equipped with specialized equipment. The second floor has collaborative study tables, cubicles for individual study, and 16 computers and 2 group study rooms equipped with audiovisual equipment to be used by both students and the faculty and administrative staff in group work and presentation practices.

#### Technological Resources

Computers are up to date with Microsoft Office and have Internet access. They provide access to the different databases existing in the Virtual Component, to the online catalog and to emails. They are used by students to carry out their research work, as well as to prepare their projects and presentations.

The **MANDARIN Automated Public Catalog (WebOPAC)** provides quick and efficient access to all library resources. It can be accessed through the CCU website and from any computer or mobile device in or outside the Institution. The library also has a multifunctional equipment service (printers and photocopiers), available to its users.

#### Printed Collection

The collection of printed resources consists of over 7,000 volumes and 10 journal titles updated and intricately linked to the curriculum in academic areas and offerings.

## **STUDENT SERVICES**

Among the student services offered by the university, the following ones stand out: admissions, orientation and counseling, financial aid, collection, retention, registration, placements, academic tutoring, and all those aimed at ensuring that the student, regardless of their study modality, achieves the reason for which they selected this university. All services are aimed at serving regular, veteran, and international students.

### **Admissions Office**

The Admissions Office is responsible of offering clear and complete information about the study program they wish to complete to any person interested in becoming part of the university. Among the main information that is given to the prospect is: the application, admission requirements, curriculum for the program of interest, and a suggested study program, among other documents. In addition, the interested party is directed at visiting the Financial Aid Office and Collections to receive all the information available about the financial aid that is available if the student qualifies, as well as alternative payment methods.

### **Guidance and Counseling Office**

Guidance and counseling services facilitate student adjustment to university life and student development. These services include academic counseling, vocational, personal or group counseling, individual or group counseling, and referral to other supporting professionals or public or private agencies.

Assistance is offered to the students to achieve their educational, vocational, and personal goals. The Guidance and Counseling Office is responsible for monitoring students through guidance and students under the different classifications of academic progress, as well as those of reasonable accommodation.

### **Registrar's Office**

The Registrar's Office is responsible for the enrollment processes, the filing and custody of student records and the expedition of documents, and certifications to the students that have met the graduation requirements and required certifications. In addition, it is responsible for certifying those students who have met all established graduation requirements.

### **Retention Office**

The main function of the Retention Office is to look for alternatives to avoid student dropouts, promoting the involvement and persistence of students with the university. This office helps the student get to the office concerned according to their needs and which has inheritance in said need. As one of its retention strategies, it offers and coordinates a program of cultural, social, and educational activities for the enjoyment of the student body. It also monitors student attendance, follow up, and refers them to tutoring. It also encourages the constitution of student organizations and the Student Council.

### **Placement Office**

The Placement Office's primary responsibility is to provide employment services to its graduate students. To comply with this, it carries out different activities, such as: orientation to the graduate candidate on how to prepare a resume, techniques for an employment interview, and letters of recommendation, among others. Guidance is offered to students who will take board exams, on the documents required by the Examining Board, the deadlines for document submissions, and the examination dates.

Placement Office staff visits public and private sector employers to promote Columbia alumni. University facilities are offered for the recruitment processes of those companies that request it.

Note: The University does not guarantee employment to graduate students.

## **Treasury Office**

The Bursar's Office is responsible for collecting the money billed to the student for tuition, fees and other related services. It orients and offers the student a payment plan, in which the student commits to the university to pay off the balance before the next enrollment.

In addition, the work-study program checks are delivered, loan checks are endorsed, and students who participate in the study benefits are oriented. Also, this office collects payments from students and/or graduates requesting official documents, such as diplomas and official credit certificates, among others. Payments to the University can be made in cash, check or money order payable to Columbia Central University; credit cards such as Visa and Master Card, ATH and Telepago from Banco Popular de Puerto Rico are also accepted.

## **Financial Aid Office**

The Financial Aid Office provides guidance on financial aid sponsored by federal, state, and institutional funds. The purpose of these grants is to help the student obtain a certificate or an academic degree for those students who thus qualify. The offer of this aid is conditioned on the eligibility and availability of the funds, and that the student meets the requirements established by government agencies, including those for satisfactory academic progress. This Office reserves the right to make the necessary changes to financial aid if there are changes in the student's economic status, academic load, or any change in the funds available at the university. For additional information on grants, refer to the Student Consumer Manual published on the website <https://columbiacentral.edu/asistencia-economica/>.

## **Tutoring Program**

To respond to the students' academic needs regarding their academic achievement, Columbia has an Academic Tutoring Program. The Program is aimed at providing the student with individual or group academic assistance to reinforce knowledge and skills in those courses or interdisciplinary subjects where the student needs to improve their academic performance. Students can be referred to by their professors or they can voluntarily request the service. The tutoring is offered by tutors participating in the Work-Study Program and is supervised by professors from different academic areas.

## **Online Services**

Columbia, in its desire to provide a better service to its students and tempered with the different modalities, has an electronic page to provide some of the online services, depending on the venue, accessing [www.columbiacentral.edu](http://www.columbiacentral.edu).

# INSTITUTIONAL POLICIES AND PROCESSES

## ADMISSIONS POLICY

### Introduction

Columbia Central University (CCU) gives people the opportunity to continue undergraduate and graduate studies through our certificate, associate, baccalaureate, and master's degree programs. Anyone interested and who can benefit from continuing their studies at our university must meet the established admission requirements. Once people complete and comply with the admission process, they will be able to begin their studies in the selected program that will lead them to become professionals in the chosen discipline.

Our admission policy requires a high school diploma or its equivalent (for undergraduate programs), and graduation from a bachelor degree program for graduate programs. CCU welcomes applications for admission from students who are studying or have studied in other post-secondary educational institutions, which are duly authorized and/or accredited to operate in Puerto Rico and the United States, as well as those of recognized foreign institutions.

This policy provides individuals with the opportunity to continue post-secondary studies through our various academic programs. The university does not exclude participation, nor does it deny benefits, nor does it discriminate against any person based on race, sex, color, birth, sexual orientation, origin, or social condition, physical or mental handicap, or because of political, religious, social, or union ideals.

### Admissions Office

The Admissions Office is responsible for offering clear and complete information about academic programs to any person interested in attending the University. Among the main information that is given to the prospective student is the curriculum for the program of interest, the admission requirements to be completed, practice requirements and licensure disclosures (if applicable), and the eligibility criteria to apply for licensure and/or licensure exams per board review requirements (if applicable), among other documents. In addition, the interested party is directed at going through the Financial Aid Office and the Bursar's Office to receive all the information about the available financial aid, if he/she qualifies, and about the alternative payment methods

### General Admission Requirements

#### Certificate and undergraduate level admission

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

1. Complete the admission application and sign it.
2. Be a high school graduate or have the recognized equivalent preparation:
  - a. High school completion must be verified by submitting a high school transcript or diploma. A student who cannot provide a high school transcript or a copy of his/her diploma because the school closed may be permitted to provide a signed affidavit for high school completion. Such exceptions are only allowed in the most exceptional cases and must be reviewed and approved by the Academic Opportunity Program.
  - b. Documentation of successful completion of the general education development (GED) or other state sanctioned test or diploma equivalency certificate is accepted as equivalent to high school completion.
  - c. If the student is transferring from another post-secondary institution, a college transcript

documenting completion of 1) an associate's degree 2) successful completion of 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) enrollment in a bachelor's degree program where at least 60 semester or trimester credit hours or 72 quarter credit hours have been successfully completed, including credit hours transferred into the bachelor's degree program.

- d. Documentation of completion of home schooling at the secondary school level (additional details below under "Admission of Homeschooling Students")
- 3. The student must have earned a minimum grade point average of 2.00 or more in high school or from the post-secondary institution they are transferring from. Those students who do not meet the required GPA of 2.00, may be eligible for admission as regular students under the "Academic Opportunity Program" (POA). (See Academic Opportunity Program Policy published in the institutional catalog).
- 4. If the student cannot present a transcript or the results of the equivalency exam, the high school diploma will be accepted, and a true and exact copy of the original diploma will be taken by college personnel as evidence of the high school degree or Graduation Certification (original document, not copy). These students are admitted as students under the POA, since we will not have a way to document the GPA earned in high school.
- 5. Students who have graduated from a high school outside of Puerto Rico and the United States must submit evidence of their academic credentials validated by the Puerto Rico Department of Education.
- 6. Students under 18 years of age must be accompanied by their parents or their sponsors when completing the admissions process.
- 7. For programs in which there is an internship component or in which there is a requirement to request the revalidation exam of the Examining Boards, the prospect must be 18 years of age or older by the time the requirement applies.
- 8. Submit the Certificate of Vaccines by the Department of Health (students under 21 years of age), in compliance with Law 25 on School Immunization of PR. See Immunization Policy published in the Institutional Catalog.

#### **Admission to the Graduate Level for New Students and CCU Graduates**

To be admitted as a regular student to a graduate program at CCU, each applicant must meet the following requirements and documents:

- 1. File an application for admission, which can be obtained at the Admissions Office or Graduate Program Office. Students who have graduated from CCU will also have to file an application for admission to the preferred graduate program.
- 2. Submit one (1) copy of the valid credit transcript(s) of the institution where the baccalaureate degree or higher was completed. The corresponding university where the baccalaureate was obtained must have proper authorization and/or accreditation.
- 3. Submit three (3) letters of recommendation from 3 people who can offer an opinion about the candidate's chances of success in graduate studies. See forms included in the application.
- 4. International students must provide the transcript, diploma or degree received with their grades and grade point average must be submitted. Said transcript must be approved by an agency accredited by NACES (National Association of Credential Evaluation Services) and must include course by course, average and grade awarded, if any.

Specific admission requirements for Master's Degrees for new students and graduates of undergraduate programs at CCU:

Master's in Business Administration

- Have a 2.50 cumulative baccalaureate grade point average. Students interested in being admitted who have a lower grade point average, refer to the POA policy.

Master's in Nursing Science

- Have a 2.75 cumulative general average. Students interested in being admitted and have a lower average, refer to the POA.
- Have a Bachelor's Degree in Nursing
- Present evidence of a current license as a general nurse

**Admission requirements at the graduate level under the Non-Residential (distance) modality, in addition to the aforementioned requirements, the applicant must:**

- Distance education students enrolled in graduate programs must be residents of Puerto Rico. Prospective students must present the university with a copy of an identity document from the state which proves their identity and residence. At the time of the interview, this document can be sent by email.
- Later, to validate the registration, the same document in a copy legalized by a notary of the city in which you reside must be sent. This document must be the National Identity Document (DNI), identification issued by the state or country of origin or a valid unexpired passport. If an applicant can visit the CCU offices personally, they have the option of presenting their identification and validating it at our offices without notarization.

**Verification of High-School Documents in the Admission Process for Puerto Rico students**

CCU, as part of its admission policy, verifies the origin of the document, evidencing that a student has graduated from high school.

The admissions officer will use the document provided by the Board of Postsecondary Institutions (or the appropriate predecessor or successor agency), which indicates the school's license date, to determine if the high school was licensed when the student graduated. If the school was licensed when the student graduated, the documentation of high school completion is accepted. If the school was not licensed at the time the student graduated, the student is directed to consult with the school. If the school was not registered/licensed at the time the student graduated, the student will not be admitted to the University.

In those cases that the documents presented by the student for validation reflect inconsistencies in identity or difference in name as provided in the admission application, the corresponding verification will be carried out, guaranteeing that no discrimination against any person based on race, sex, color, birth, sexual orientation, origin, or social condition, physical or mental handicap, or because of political, religious, social, or union ideas is met. Given this, they must submit:

- Affidavit certifying the change in name.

**Verification of High School Documents in the Admission Process for students from Accelerated Schools**

CCU, as part of its admission policy, 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 school and do not provide documentation of a recognized equivalent to a high school diploma.

Through the established procedure, the following will be verified:

1. The validity of the license of the accelerated school from which the student comes.
2. The year the accelerated school diploma was awarded.
3. That the students from said schools completed their studies according to the applicable requirements according to the Board of Postsecondary Institutions (or the appropriate predecessor or successor agency). CCU, as part of its admission policy, 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 school and do not provide documentation of a recognized equivalent to a high school diploma. Through the established procedure, the following will be verified:

**Documents to be delivered by the student from an accelerated school:**

1. Accelerated school credit transcript.

Once the documents delivered by the student have been verified and validated, their admission to the institution will be determined.

**High school credentials of questionable validity**

All high school diplomas and/or transcripts submitted by prospective and admitted students are individually reviewed by admissions officers. If CCU has any reason to question the validity of a student's documentation of high school completion, the admissions officer will check with the high school to confirm the validity of the student's diploma and will confirm with the relevant department or agency in the state in which the secondary school is located (including via a published list) that the secondary school is recognized as a provider of secondary school education. A student's self- certification of high school graduation is not sufficient to validate a questionable high school credential.

## **Admission of Homeschooling Students**

Students from homeschooling may apply to CCU in three ways:

1. Present evidence of having completed a program of study equivalent to high school graduation in Puerto Rico. The equivalency must be certified by the Puerto Rico Department of Education. The equivalence of the academic index obtained must meet the minimum requirement of 2.00.
2. If there is no certification from the Puerto Rico Department of Education, the student's parent or guardian will present:
  - a. Credit transcript: the person or entity that certifies home studies will prepare a transcript of the courses completed by the student. It should include the name of the course, period in which the course was taken, and grade obtained. The students must complete all courses required by the Puerto Rico Department of Education to complete High School.
  - b. An affidavit that highlights that the student completed their studies through the home learning modality (homeschooling).
3. If the completed a program of study equivalent to high school graduation in the United States or a foreign company, the student must submit their transcripts to the National Association of Credential Evaluation Services (NACES) for evaluation. NACES will confirm if the student's program of study is equivalent to high school completion.

## **Requirements for Admission for Professional Improvement**

A Professional Improvement (PI) student is one who is interested in taking certain courses, without being enrolled in an academic program at the University. The most frequent reasons for this type of request are for continuing professional education purposes or to request transfer credits to another university. PI students are not eligible for financial aid. The requirements for admission as a PI student are:

- Submit a duly completed application for admission.
- Full payment of the admission application fee.

## **Transfer Credit**

CCU will accept transfer credits from postsecondary institutions authorized and/or accredited by an agency recognized by the United States Department of Education and legitimate foreign institutions, as determined by CCU. The courses completed in the institution of origin will be considered individually for validation; CCU reserves the right to determine the awarding of transfer credit for courses completed at other institutions. For more details, refer to the Validation and Transfer of Credits Policy.

- For students at the graduate level, transfer credit hours will be accepted up to a maximum of 18 credits. Ordinarily, completed courses with a grade of less than B will not be accepted as transfer credits. Courses accepted in transfer will not be considered to compute the student's grade point average at CCU.
- For students with professional experience who are applying to the Master of Business Administration Program, CCU offers the opportunity to consider and credit the knowledge and skills acquired through their professional work experience, as established by the PROSIGUE alternative. Through this alternative, a maximum of 18 credits can be awarded. At the undergraduate level, a student can also be awarded credits for professional experience (residency requirements apply).

In the case of institutions that have ceased functions and therefore it is impossible to obtain a credit transcript, the student may submit a student credit transcript or any other document that attests to their completed courses for consideration by CCU, provided they are supported by an affidavit. However, CCU reserves the right to validate said knowledge through its evaluation instruments prior to the acceptance of transfer credit. This provision applies only to undergraduate programs.

The student with veterans benefits and/or their beneficiaries, having studied at any post- secondary or university institution, will be required to present the credit transcript of the institution of origin, in order to qualify for the educational benefits of the Veterans Administration. If the credit transcript is not presented, CCU will not be able to certify it to the Veterans Administration.

## **Special cases - "Experiential Learning"**

- People who have acquired knowledge through other means, other than traditional academics, and wish to have it considered for academic credit should request guidance regarding this at the Admissions Office, so that it can be referred to the Dean of Academic Affairs.
- In those cases that present evidence of having completed the parts of the Mathematics, English and/or Spanish with 560 points or more on the College Board, the course will be validated according to their study program, regardless of whether they come from high school or transfer.

## **Residency Requirements**

**Graduate programs:** Regardless of how many credits a student can obtain through transfer, professional experience, or other methods accepted by the academic community, each student must complete at least 21 credit hours in their study program in residence within CCU.

**Undergraduate programs:** Regardless of how many credits a student may obtain through transfer, professional experience, or other methods accepted by the academic community, each student must complete at least 24 credit hours credited towards their program of study in residence within CCU.

**For certificate or associate degree programs,** these credits in residence must include at least 12 credit hours in the student's area of specialization. Students enrolled in a baccalaureate program must complete at least 24 credit hours in residency in their area of specialization or related courses, except in the Bachelor of Science program in Nursing RN to BSN, in which at least 18 credit hours must be completed in the student's area of expertise or related courses.

## **Notification of Admission**

All applicants will be informed in a timely manner about the institution's decision regarding their admission to the university, through a letter from the Admissions Office.

**Acceptance to the university and an educational program does not authorize the applicant to begin classes unless all required documentation has been submitted or an extension has been granted to submit the documents.**

## **Other Conditions 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 Recruitment and Admissions Officer will notify the student of the documentation that is needed to complete their file and the deadline for its delivery. Such a student is conditionally admitted, and financial aid will not be disbursed to the student until all admission requirements have been satisfied. If the student does not deliver the required documentation in the specified period, the enrollment will be canceled, and the student will be dropped from the University.

## INSTITUTIONAL INFORMATION FOR VETERANS/MILITARY STUDENTS

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

### Approval

Columbia Central University is approved by the State Veterans Educational Services Approving Agency to provide academic training under the various GI Bill® educational programs. Approvals may vary by campus. Veterans of the Armed Forces may be eligible for educational benefits from the U.S. Department of Veterans Affairs (VA). The VA pays some benefits directly to the student veteran, and others to the school, depending on the program in which the veteran participates.

### 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. For the estimated tuition, fees, room, and board rates, books, and other cost materials, please refer to CCU webpage under <https://columbiacentral.edu/asistencia-economica/programas-para-veteranos-militares/>

Estimated tuition, fees, room, and board rates, books, and other cost materials and important information, please refer to the following website and related links: <https://columbiacentral.edu/asistencia-economica/programas-para-veteranos-militares/>

- [CCU-Tuition-Fees-Other-Charges-July-2024-Rev.-05.28.24-Spanish.pdf](https://columbiacentral.edu/wp-content/uploads/2024/05/CCU-Tuition-Fees-Other-Charges-July-2024-Rev.-05.28.24-Spanish.pdf)
- CCU Tuition Assistance Returned of Unearned Tuition Policy
  - <https://columbiacentral.edu/wp-content/uploads/2024/11/DOD-CCU-Tuition-Assistance-Returned-of-Unearned-Tuition-Policy.pdf>
- Consumer Information
  - <https://columbiacentral.edu/student-consumer-information/>

### Evaluation of Transfer of Credits

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 Validation and Transfer of Credit Policy.

### Satisfactory Academic Progress

Columbia Central University (CCU) 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).

The Registrar or Certifying Official will maintain a copy of each student's Satisfactory Academic Progress (SAP) report. For further information, please refer to the Satisfactory Academic Progress Policy.

### 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 enrolled members, 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 Attendance Policy.

### **Administrative and Academic Regulations**

Students are expected to conduct themselves in a nature and manner that reflects the values and integral development that CCU has as its mission for its students. Students must abide by the rules and regulations in the Student Consumer Manual and the Institutional Catalog. The Institution may dismiss any student in case of violation of the rules of conduct outlined in the Student Consumer Manual 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.

### **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, CCU 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.

CCU 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 Certifying 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.

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 institutional catalog at the time the student entered or was readmitted to CCU whichever date is later. The student should meet the minimum grade point average and other requirements as indicated in the Graduation Requirements 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.

\*GI Bill® is the U.S. Department of Veterans Affairs (VA) registered trademark.

## INSTITUTIONAL GRANTS

This policy applies to all students who enroll at any Columbia Central University (CCU) location and meet the eligibility criteria of the grant for which they are applying. Students may participate in 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 CCU 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 CCU encourages you to apply early, as funds available for these grants are limited. CCU will disburse the amount of the grant awarded at the end of the academic semester 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 applies to the first semester of study. An additional \$200.00 will be awarded to students who demonstrate 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. Completed high school in the year admitted to CCU,
2. Complete the Institutional Grant Application before the end of their first semester,
3. Be a resident of Puerto Rico and/or enrolled in CCU,
4. Maintain satisfactory academic progress,
5. Complete all courses enrolled in the first semester of studies.

### **Institutional Grant: Healthcare Heroes**

The Healthcare Heroes grant awards \$200.00 to students enrolled in programs leading to a diploma and \$300 to students enrolled in programs leading to an associate, bachelor's, or master's degree. The grant applies to the first semester 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 eligibility for this grant.

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 semester,
3. Be a resident of Puerto Rico and enrolled in CCU,
4. Maintain satisfactory academic progress,
5. Complete all courses enrolled in the first semester of studies.

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

The "Creciendo Contigo" grant awards:

- \$500.00 to students reenrolling after 180 days in a program previously initiated, or

- \$200.00 to students enrolled in programs leading to a diploma. 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.
- \$300.00 to students enrolled in programs leading to an associate, bachelor's, or master's degree. 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.

The grant applies to the first term of study.

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

1. Enroll in a new program after previously completing a program at one of CCU's locations, or re-enroll in a program previously initiated that was not completed in any of CCU 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 to new students enrolled in programs leading to an associate, bachelor's, or master's degree. The grant applies to the first semester 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 eligibility for this grant.

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

1. Be a new student,
2. Complete the Institutional Grant Application before to the end of their first semester,
3. Be a resident of Puerto Rico and enrolled in CCU,
4. Maintain satisfactory academic progress,
5. Complete all courses enrolled in the first semester of studies.

# **POLICY OF VALIDATION AND TRANSFER OF CREDITS**

## **Introduction**

The fulfillment of the mission of Columbia Central University (CCU) depends on several factors, including the validation of courses or their transfer. It is important to establish mechanisms for those students who request the evaluation of courses approved in other institutions at the postsecondary or university level. Consequently, the Office of the Vice President for Academic Affairs has established the Policy for the Validation and Transfer of Credits.

## **Applicability and Dispositions**

Students who are or have studied at other post-secondary and higher education institutions and who wish to continue their studies at CCU, must satisfy the admission requirements and, if they wish for their approved courses to be considered by the institutions of origin, they must obtain, from said institutions, an official credit transcript, which must be sent by mail from institution to institution. The courses approved in the institution of origin will be considered individually for validation and/or transfer, except in case of articulation agreements with partner institutions. CCU reserves the right to accept courses approved at other institutions, for valid reasons.

Acceptance of approved courses at the institution(s) of origin will be subject to the following considerations:

1. Have filed a request for course evaluation to be validated or transferred in the Registrar's Office.
2. The courses submitted for evaluation must be equivalent or acceptable to those offered in the study program requested by the students.
3. The courses must have the same or greater value in credits, or the equivalent in contact hours.
4. In cases of graded courses, the approved course at the institution of origin must have a grade of C or above. In courses with a minimum qualification per study program policy, the same will be considered when evaluating. Ordinarily, courses with a "D" grade will not be accepted for validation. For those programs that require credit transfer, all courses approved in the institution of origin, especially in cases in which the degree has been conferred, will be accepted; this includes those rated "D".
5. In cases of courses without qualification, approved courses will be evaluated for validation through the modalities of military credits, work experience, university experience, CLEP, PNA, and DANTEs exams, among others.
6. The student must submit the official certification issued by the entity offering the exam. Please refer to the minimum accepted scoring table for details.
7. In case of passing the diagnostic tests about Spanish, English, and mathematics with 70% or more, the course will be validated according to their study program.
8. Those candidates who prove that they have passed the mathematics, English and/or Spanish parts with 560 points or more in the College Board, may request validation of the applicable courses according with their study program.
9. To transfer courses from authorized international institutions in their country, the student must present the official transcript and official certification issued by an evaluation agency that is affiliated with the National Association of Credential Evaluation (NACES).
10. Remedial or continuing education courses, as well as challenge exams taken at other institutions will not be considered for validation.

The validation of the courses will be made only of the credits, but not of the qualification. That is, these courses grades will not be considered for the average computation. The credits of the validated courses will be considered as part of the credits attempted and approved to determine the Satisfactory Academic Progress (SAP) of the student. However, the average determination will be based on the courses approved at CCU.

CCU does not want to establish a specific term for the expiration of previously completed studies because we understand that not all knowledge has the same ability to expire and because the person may have been strengthening that knowledge at their work in another way. For this reason, the university will evaluate each case individually.

### **Procedures**

1. The candidate will file an application for their credit evaluation to be validated or transferred to the Registrar's office.
2. The candidate will specify all the institutions of origin from which they will present the transcript to be evaluated when applying.
3. The designated official will make the corresponding evaluation, taking into consideration the information described above. The original validation document is for the student and the copy will be filed in the student's academic record along with the credit transcripts that validate the validation.
4. The application for validation establishes that all validation will be considered tentative until the official transcript of each evaluated course is presented. The student has 45 days from the request day to provide the official transcript of the institution of origin. In the case of institutions that have ceased functions and therefore it is impossible to obtain an official credit transcript, the student may submit a student credit transcript, or any other document that attests to their approved courses, for consideration by CCU, if they are supported by an "affidavit". However, CCU reserves the right to validate said knowledge through its evaluation instruments, if understood, as a previous step to their transfer acceptance. If the student does not present an official credit transcript, they may request other possible validation alternatives; like, for example, challenge exams.
5. Once the accepted courses and/or exam results have been validated, they will be recorded in the student's academic record.

### *Residency Requirements*

#### **Graduate Level Programs**

Regardless of how many credits a student can obtain through validation, transfer, professional experience, or other methods accepted by the academic community, each student must obtain at least 21 approved credit hours in their study program in residence within CCU.

#### **Undergraduate Level Programs**

The credits that a student can obtain through validation, transfer, professional experience, or other methods accepted by the academic community will not exceed 49% of the total credits required to complete the study program. In certificate programs, a maximum of 12 credits will be accepted in validation. For certificate or associate degree programs, residency credits must include at least 12 credit hours in the student's area of specialization. Students enrolled in a Baccalaureate program must complete at least 24 credits in residency in their area of specialization or related courses, except in the Bachelor of Science program in Nursing RN to BSN, which of the 24 credits must complete at least 18 in your area of expertise or related courses.

The credits approved by challenge exams or by work experience will be considered as part of the credits approved in residence and will not be considered as part of the policy of maximum 49% credits to be validated.

# **POLICY ON COURSE VALIDATION BETWEEN THE NON-UNIVERSITY POSTSECONDARY LEVEL AND THE UNIVERSITY**

## **Introduction**

The fulfillment of Columbia Central University's mission depends on several factors; among them, the need to provide mechanisms for students to continue their studies until they reach their academic goals. CCU offers students enrolled in non-university postsecondary programs the opportunity to transfer courses to other non-university programs or to a college-level program. To achieve its mission, the Office of the Vice President for Academic Affairs has established the Policy for Course Validation between the Non-University Postsecondary Level and the University Level.

Courses approved at the certificate level may be considered individually for transfer to other non-university or higher-level study programs. They will be considered if the non-university post-secondary level technical courses transferred are part of the student's non-university program of interest or at least one of the higher-level programs offered at the university.

## **Applicability**

This policy applies to all students enrolled in a program that belongs to the certificate level that is part of at least one of the higher-level programs offered at the university.

## **Dispositions**

Acceptance of approved courses will be subject to the following considerations:

1. Courses to be considered for transfer must have a "C" grade or higher. Courses with a minimum qualification per study program policy will be considered during evaluation. Ordinarily, courses with a "D" grade will not be accepted.
2. The courses to be considered must have the same or greater credit, or the equivalent in contact hours.
3. The courses submitted for evaluation must be equivalent in content, quality, and rigor to the courses offered in the study program requested by the student. The determination of averages will be made based on the courses approved at CCU.

The validation of any course duly approved in CCU will be accepted when it is offered in programs of different levels, but the course must be comparable in content, hours, and credits. Students who graduated from a program or students who have processed withdrawal and are determined to enroll in a certificate program must pass a minimum of 12 credits of residence after validating all the applicable courses: this is for average purposes. For the Associate Degree, Baccalaureate and Master's degree programs, it is required to pass a minimum of 24 credits of residency once all the courses that apply for validation have been accepted.

Students who have processed withdrawal who request readmission to finish the program from which they withdrew will have to take the necessary courses to complete it. All courses that are comparable to the current program will be validated for these students.

CCU does not want to establish a specific term for the expiration of previously completed studies, as it understands that not all knowledge has the same capacity to expire and because the person may have been strengthening that knowledge in their work in another way. For this reason, the university will evaluate each case individually.

## **POLICY FOR THE CHALLENGING EXAM**

### **Introduction**

The fulfillment of Columbia Central University's mission (CCU) depends on several factors. Among them, the course is validated through other alternatives. To achieve its mission, CCU offers students the opportunity to validate courses, demonstrating the knowledge and skills acquired through passing challenge exams. For this reason, the Office of the Vice President for Academic Affairs has established the Policy for Challenging Exams.

Any student interested in challenging a course for it to be validated must request and take the challenge exam before registering for the course, according to the established dates. Only one opportunity to take the exam is allowed. The student must obtain a minimum of 70% to consider the exam passed.

### **Applicability**

This policy applies to all students enrolled in CCU programs, regardless of level of study.

### **Dispositions**

1. Students:
  - a. Not having previously enrolled in the course.
  - b. Have approved all requirements established for the course to be challenged.
  - c. The student will have the right to try the challenging exam for a course only once. If the exam is failed, the student will have to enroll in the course.
  - d. Once enrolled in the courses, the student will not have the right to request a challenge exam for said courses.
  - e. The challenge exam is not a substitute or alternative for completing courses or making up courses previously attempted and not approved.
  - f. The student may only challenge up to a maximum of 3 courses per semester.
  - g. Make the payment at the Treasurer's Office.
  - h. File the challenge exam application at the Registrar's Office.
2. Registrar Officer:
  - a. Process the application for the challenging exam.
  - b. Give the student the study guide.
  - c. Notify the Academic Directors/Coordinators of the student's request to take a challenging exam.
  - d. Coordinate with the Director/Academic Coordinator the date and time to offer the challenging exam.
  - e. Notify the student, in writing, of the test results.

## **POLICY FOR THE ACCREDITATION OF COURSES BY EDUCATIONAL EXPERIENCE IN CONTINUOUS PROFESSIONAL GROWTH AND PROSIGUE ALTERNATIVE**

As part of the alternatives that CCU grants the students to complete their study program, the university recognizes professional experience, non-academic professional training, and performance by execution of tasks as sources of knowledge. For those students who have acquired knowledge and skills through these means and wish to have them evaluated to accredit them as part of their study program, there is the **Policy for the Accreditation of Courses by Educational Experience in Continuous Professional Growth**.

The evaluation of the experience for continuous professional growth consists of establishing judgment and academic assessment on the student's narratives on the cognitive, personal, and professional aspects, focused on their work experience, if it is consistent with the learning that is supposed to be acquired in private

courses. The narratives must be documented with evidence which will be requested according to the course for which accreditation is needed. The student will request the courses they wish to accredit by experience and will undergo the evaluation process correspondent. This process is carried out by evaluating professors of each discipline and according to the academic level of the study program.

The courses evaluated by this modality are not covered by the financial aid programs available at the Institution. The student must cover the cost of the courses accredited by experience at the time of the evaluation request.

**Requirements:**

1. Go through an interview process with the Program Coordinator.
2. Present evidence of a minimum of 3 years of experience in the specialty area or related area.
3. Go through an orientation process.
4. Approved courses will not be taken into consideration for average purposes but will be taken into consideration for attempted credits according to the Satisfactory Academic Progress Policy. Courses approved under this alternative will count as approved, but not graded.
5. The student will comply with the specific evaluation requirements of the course during the academic term in which it is requested. If the course is not completed, the student will receive notification of non-compliance and will have to enroll in the course.
6. The student will be obliged to satisfy the criteria applicable to the accreditation of all the course credit hours through the evaluation. Under this alternative, no credits representing a portion of the course will be awarded; This means that all experience evaluated must be equivalent to the total amount of credits, knowledge, skills, and competences required for this course approval.

**Continuing Alternative**

PROSIGUE is an educational alternative designed to respond to the needs of an adult student with significant professional experience. The modality allows serving those students who have little time to study, are trained, and wish to complete their progress in their studies. Applicants must possess the required competencies to validate the courses of interest.

In this alternative, the undergraduate student enrolls in the SEMI 3008 course: Life Reflection Seminar. Through this course and with the advice of a college facilitator, the student prepares a professional portfolio. It consists of a series of narratives on personal, academic, and professional aspects focused on the work experience that is relevant to the instruction of the selected courses. These narratives must be supported by evidence that justifies the writing. During the period established in the term, the student will request the courses wished to be validated by experience and will undergo the evaluation process.

The cost of the SEMI 3008 course can be covered by federal funds, in those cases where the students qualify. However, the costs of the courses that will be evaluated by this modality will not be covered by federal funds. Before the final evaluation process, the student must have covered the current costs. The final evaluation process will be carried out by evaluating professors in the different disciplines according to the courses of their study program.

Regardless of how many credits a student can obtain through transfer, challenge exams, validation of professional experience, or other methods accepted by the academic community, each student must approve at least 24 credit hours towards their study program in residence as established in the Undergraduate Level Admissions Policy and the Course Validation Policy.

At the graduate level, the student develops the portfolio with the advice of a mentor. Before the final

evaluation process, the student must have covered the current costs. The final evaluation process will be carried out by evaluating professors in the different disciplines according to the courses of their study program.

Regardless of how many credits can be obtained through transfer, challenge exams, validation of professional experience, or other methods accepted by the academic community, the student must pass at least 21 credit hours towards their study program in residence established in the Admissions Policy (Graduate Level) and the Course Accreditation Policy.

**CCU reserves the right to accept or reject the candidate's application for any of these alternatives for validation and/or transfer of credits if, at the time of the initial evaluation, it is identified that it does not meet the requirements to proceed.**

## READMISSION POLICY

### Introduction

CCU reserves the right to readmit students in each session and/or academic term. CCU's obligation is exclusively during the term in which the student has enrolled and paid all fees. All students who request readmission must abide by the university's existing academic policies, as well as those of the academic program requesting re-admission.

If there is a curricular review of the program that the latter wishes to readmit, the Registrar's Office will determine the student's placement according to the applicant's academic evaluation. The readmission of each applicant will be subjected to the evaluation of their academic record, their status with the university, and that there is a group available to continue their studies.

### Applicability

The Columbia Central University (CCU) Readmission Policy applies to all students who have stopped studying at the university for one or more academic terms or have graduated. They must apply for readmission to the university when they decide to continue their studies in the program from which they dropped out.

### Classifications:

- *Reentry*- Student who was one or more terms out of college and did not complete any academic program and returns to continue the same academic program. This readmission is carried out by the Retention Office together with the Registrar's Office.
  - Withdrawn student who has not passed any course and returns to the same program.
  - Withdrawn student, applies for readmission to the same program, and has approved credits.
  - Withdrawn student who only needs his/her practice to graduate.
- *Grad Reentry Future Start*- CCU graduate students who re-enroll in another academic program at the university. This type of readmission is processed by the Admissions Office.
- *Reentry Future Start*- Student who dropped out of an academic program at the university and enrolled in a new program. This type of readmission is handled by the Admissions Office.

### Readmission Requirements

If the student wishes to resume their studies in the same unit where they previously studied, or on another of the CCU campuses, to request reentry they must meet the following requirements:

#### Graduate level programs:

- a. File the readmission application, which can be obtained at the Admissions Office.
- b. If the applicant has withdrawn from an academic program at CCU and completed the study program at another institution, they must provide the following documentation: Submit 1 official copy of the valid credit transcript(s) from the institution where the baccalaureate degree or higher was completed. The university where the baccalaureate was obtained must have proper authorization and/or accreditation.
- c. An applicant who has graduated from a CCU undergraduate program and wishes to readmit to a graduate program must provide the following documentation:
  - Present 3 letters of recommendation from three people who can offer an opinion on the chances of success of the candidate for graduate studies.

#### Certificate and Undergraduate level programs:

- a. File a request for readmission, which can be obtained at the Retention Office.

- b. If the student has any debt with the University, the financial situation must be resolved before readmission.
- c. Comply with the policies and/or requirements of the program to be readmitted.
- d. If the student withdraws again and wishes to apply for readmission a second time, it will be strictly evaluated and must be approved by the Retention Officer, the Counselor, and the Registrar Officer. If necessary, input may be requested from the Director/Academic Coordinator of the program.

## **IMMUNIZATION POLICY**

Columbia Central University (CCU) recognizes the importance of a good quality of life. For this purpose and in compliance with Law 25 on School Immunization of 1983, the Immunization Policy was created. The Law establishes that no person under the age of 21 may attend a college or university unless they present a Certificate of Immunization with all the doses of vaccines required by the Department of Health.

### **To whom this Policy applies**

This Policy applies to all those students who enroll in a program and are under 21 years of age.

### **Definition**

Immunization Certificate - Form provided by the Department of Health, signed by the doctor or professional administering the vaccine and certifying that a particular person has been immunized against a certain disease.

### **Policy Disposition**

All students under the age of 21 who are enrolled must present the current Immunization Certificate. If they do not comply with this requirement, their enrollment will be canceled. Those students who request exemption to vaccinate for medical or religious reasons, as provided by Law, will have to submit the Medical Certification or Affidavit provided by the Department of Health of the Commonwealth of Puerto Rico. In these cases, the following applies:

1. Every parent or guardian must deliver to the university staff the aforementioned Medical Certificate or Affidavit.

It should be noted that, although the Law stipulates such exemptions, the student must orient themselves in the Admissions Office, since there are academic programs that require internships in hospitals, and these require that they be duly vaccinated to participate in said practice

# **POLICY OF ADMISSION CONDITIONED TO A HIGHER-LEVEL PROGRAM**

## **Introduction**

The fulfillment of Columbia Central University's mission (CCU) depends on a number of factors. Among them, the need to provide mechanisms for students to continue their studies until they reach their academic goals.

Changes in society and advances in science, health, technology, and various professions have promoted the need for professionals trained to meet job demands. This causes many students to wish to continue their studies at a higher level. CCU encourages students to develop their knowledge and skills to their maximum and face challenges as well as to expand their opportunities to climb new positions and achieve personal, professional and work success. Consequently, the Vice Presidency for Academic Affairs has established a Policy for conditional admission to higher level programs.

## **Applicability**

This policy applies to all students enrolled in a CCU academic program.

## **Dispositions**

1. Students:
  - a. Be enrolled in their penultimate term of studies and lack 11 credits or less to complete the program if a certificate or associate degree student.
  - b. Be enrolled in their penultimate term of studies and lack 9 credits or less to finish the program if a high school student.
  - c. Duly complete the Conditional Admission Application to a Higher-Level Program of their interest and any other document related to the validation process, if applicable.
  - d. The student will not be officially enrolled in an associate, baccalaureate, or master's program, as applicable until the previous academic level is completed.
  - e. Receive guidance from the Financial Aid and Collections Officer on their new financial obligation and be aware that Title IV Funds for conditionally admitted courses will not be received.
  - f. If the application is accepted, continue to approve the courses enrolled in their original program to maintain their status of conditional admission.
  - g. Could enroll up to a maximum of 3 credits per academic term of the higher-level program of interest. Once conditionally admitted, if the student completes the degree and continues studies in the program that was conditionally admitted, he/she will be considered an admitted student in the higher-level program without needing to go through any additional application process, except when it is at the graduate level. At the graduate level, the student must refer to the graduate admission requirements.
2. Personnel of the Registrar's Office:
  - a. In the case of those students who have registered as transfer students, the application and transcript will be sent to the designated official, for the validation process of transferred courses, if applicable.

Notify the applicant on the decision made, emphasizing the importance of receiving guidance from the Financial Aid and Collections Offices regarding their new financial obligation and emphasizing that conditionally admitted courses are not eligible to receive Title IV Funds.

# **POLICY FOR THE CONTINUITY OF THE ACADEMIC OFFER, ACCORDING TO THE SUGGESTED PROGRAM OF STUDY**

## **Introduction**

The fulfillment of the Columbia Central University's mission (CCU) depends on a myriad of factors, including demand for the programs offered to meet community's needs. To achieve this, it is important that the academic curriculum includes the mechanisms that allow students to progress in their study program until they complete their academic degree, according to their needs. CCU is committed to complying with the regulations established by the licensing and accrediting agency and the federal government.

For this reason, the Office of the Vice President for Academic Affairs has established the Policy for the continuity of the academic offer, according to the suggested study (PES) and the time established to complete an academic program, based on its development of rules, procedures, and regulations established by the Board of Postsecondary Institutions of Puerto Rico, the Middle States Commission on Higher Education, and the United States Department of Education.

## **Applicability**

This policy applies to all Academic Directors/Coordinators and students of all academic programs offered at the university, regardless of the type of study.

## **General Dispositions**

1. The Director/Academic Coordinator will keep the PES updated, for each program under his/her charge, using the format established by the Office of the Vice President for Academic Affairs.
2. The Director/Academic Coordinator of each program will guide all students.
3. Students, regardless of their classification, on the courses that correspond to enroll, for each term according to the PES and the time established to complete their academic program, aligned to the curricular sequence.
4. The Director/Academic Coordinator of each program will guide those transfer students who come from another university, on the courses that correspond to enrolling for each academic term, according to the PES and the validation of transfer courses. With this information, the Director/Academic Coordinator will determine the time it will take for the student to complete their program if it continues without interruption.
5. Orientation offered by the Director/Academic Coordinator will include, but will not be limited to, the following:
  - a. Suggested Study Program (PES)
    - i. The academic load that the student must enroll for each academic term until completing their degree, according to their PES.
    - ii. The benefit of complying with the academic load to finish the degree in the established time, of following the PES without interruption.
    - iii. The consequence of not complying with the academic load to finish the degree in the established time, of following the PES without interruption.
    - iv. The importance of visiting the Financial Aid and Collections Offices to discuss the PES, after knowing the recommendation of the Director/Academic Coordinator.
  - b. Selection of Courses
    - i. The frequency of the courses offered is based on the number of students and the demand.
    - ii. The importance of enrolling in the recommended courses for each academic term for the student to complete their degree in the time established in the PES.
    - iii. They need to comply with the program and course requirements on time, to avoid delays in

the enrollment of each academic term.

**c. Study Alternatives**

- i. The study alternatives that exist to complete the academic degree in the established time, according to the PES include challenge exams, portfolio, and work experience, among others.

**d. Course Guarantee**

- i. CCU guarantees continuity in offering courses to students who follow the suggested study program without interruption (without failing or leaving a term in between), until they complete their academic degree.
- ii. CCU guarantees continuity in offering courses to students who request the graduation evaluation with at least two terms prior to their graduation date.

# **POLICY FOR THE CONTINUATION IN THE COURSE OFFERINGS TO STUDENTS ENROLLED IN ACADEMIC PROGRAMS THAT THE INSTITUTION PROPOSES TO PLACE IN MORATORIUM, CLOSE, OR CEASE OPERATIONS**

## **Introduction**

The fulfillment of Columbia Central University's mission (CCU) depends on a myriad of factors, including demand for the programs offered to meet the communities' needs. CCU periodically evaluates the enrollment movement and the labor demand market to determine the continuation of the academic programs. When the demand for the programs drops significantly, in a period of 3 years or more, the situation is analyzed to determine if there is a need to place it in moratorium or close the program. When demand drops dramatically in all programs offered, the situation is analyzed to determine whether it is necessary to cease operations.

CCU is committed to complying with the regulations established by the licensing agency, accrediting agency, and the federal government. For this reason, the Office of the Vice President for Academic Affairs has established a Policy for the continuation of courses offered to students enrolled in academic programs that the institution intends to place in moratorium or close, as well as the possible cessation of operations, taking as a basis for its development; the rules, procedures, and regulations established by the Board of Postsecondary Institutions of Puerto Rico, the Middle States Commission on Higher Education, and the United States Department of Education.

## **Applicability**

This policy applies to all Academic Directors/Coordinators and students of all academic programs offered at the university, regardless of the type of study.

## **General Dispositions**

When the university determines to place a program on moratorium, close it, or cease operations, it must:

1. Notify the licensing agency, accrediting agency, and the federal government of the decision.
2. Comply with the requirements established by the licensing agency, the accrediting agency, and the federal government for such purposes.
3. Ensure active students the continuation of the courses offerings that follow in the Suggested Studies Program, uninterruptedly (without failing or leaving a term in between) until they complete their academic degree.
4. Assure the graduation candidate students the continuity in the courses offering to which they request the graduation evaluation at least 2 terms prior to their graduation date.
5. Ensure that students and graduates continue to receive transcription services for official credits and other documents related to the registry.
6. Notify the licensing and accrediting agency and the federal government about changes in the address, telephone number, person to contact, and any other information necessary for the student to request and receive services.

## **Other considerations when the university determines to cease operations:**

1. Dialogue with affected students to identify the educational institutions that they are interested in transferring to and help them to carry out the procedures.
2. Establish a verifiable and reliable system to continue providing students with information relevant to their academic work (transcription of credits and other documents).
3. Post an announcement notifying the closing of the university.
4. Establish a Teach out plan for all students affected by the moratorium or operational closure of the university.

## **INSTITUTIONAL POLICY ON ACADEMIC RESEARCH**

### **Introduction**

The fulfillment of Columbia Central University's mission (CCU) depends on a myriad of factors, including promoting the development of knowledge through teaching and research in the various areas of study. Currently, the program curriculums offered at the master's and baccalaureate levels include projects that engage students in the research process. The results of these projects demonstrate the integration of the knowledge acquired by students in their study disciplines.

Similarly, CCU promotes value and interest in the research processes in the program curriculums offered at the associate and certificate level. CCU's commitment continues to expand by including teaching research to develop projects according to the area of specialty of the faculty. For this purpose, the Office of the Vice President for Academic Affairs has established the Institutional Policy for academic research.

### **Applicability**

This policy applies to the entire university community and the academic programs of CCU and its enclosures.

### **Dispositions**

1. Develop research projects in the classroom that contribute to the generation of knowledge in the study programs offered and in the community in general.
2. Develop projects in teaching that promote the value and interest of research and professional development of the faculty in their area of specialty.
3. Encourage the collaboration and participation of administrative, academic, and student units to facilitate the research projects or activities carried out at the university.
4. Facilitate the dissemination of the results of research projects or activities to the university community and in general.
5. Promote the students and professors' quality and integrity of the projects or activities throughout the research process.
6. Ensure that research projects or activities are carried out according to the Institutional Manual for Academic Research (MIIA).
7. Ensure that research projects that involve human beings do not begin without the proper authorization of the relevant Institutions and that they follow the procedures established by the Federal Regulations Code of the Department of Health and Human Services for the Protection of Human Subjects in Applicable Research, <http://www.hhs.gov/ohrp/>.

Collaborate or participate with other universities, institutions, or public or private organizations that work or promote research projects for the benefit of society.

## **SELECTION AND PROGRAMS CHANGES**

One of the advantages offered by the curricular structure of Columbia Central University is that the study programs integrate Professional Education courses. It is therefore necessary for the student to make their selection of academic program before beginning to study.

This does not prevent the student, after having started their studies, from changing the program. For this, it will be necessary to discuss the matter with the Counselor.

## **DEFINITION OF THE STUDENT'S ACADEMIC LOAD**

#### **Graduated Level**

A graduate-level student is considered full-time when having 6 credits or more in the term. If a student has 5 credits or less is considered part time.

#### **Undergraduate and Certified Level**

A full-time student is one who has 12 credits or more in the academic term or its equivalent. A student who takes 9-11 credits (3/4 time) and 6-8 credits (1/2 time).

In case of those students who wish to enroll in 18 credits or more, they must be referred to the Counselor. This, in conjunction with the Director or Academic Coordinator of their program, will evaluate the academic performance to determine if it is recommended to enroll said number of credits.

## **STUDENT ENROLLED ONLINE**

A student will be considered under the online modality, as long as he/she is enrolled in an approved academic program under the distance education modality (hybrid program or online program). A hybrid program is one that offers fully online courses and face-to-face courses such as laboratory courses and internships. The suggested program of study of the student in this modality clearly identifies the courses of the program that will be offered completely online and those that must be taken face-to-face, in order to fulfill the objectives of the program. An online program is one that offers its courses completely online.

## **DEFINITION OF ACADEMIC YEAR**

An academic year is equivalent to a period of 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 at the beginning of each academic term on the web page.

## **POLICY ON THE DEFINITION OF CREDIT HOURS**

#### **Introduction**

Credit hours are the basic unit the federal government uses to determine the amount of funds a student is eligible for under Title IV financial aid programs. To prevent fraud and abuse when using financial aid, the United States Department of Education establishes, effective July 1, 2011, determined that there must be a federal definition of credit hours, which serves as a standard for all educational institutions to develop their own definition to be used in all the courses they offer. For such purposes, and in compliance with the regulation 34CFR 600.2 of October 29, 2010, the Office of the Vice President for Public Affairs Academics have established the Policy on the definition of credit hours.

#### **Applicability**

This policy applies to all programs offered by CCU on its campuses, regardless of their level or type of studies.

#### **Definition of Credit Hours**

CCU defines credit hours as the amount of work represented in expected learning outcomes, which are evidenced by student achievement. For the associate, baccalaureate, and master's degree levels, the unit of measurement used to calculate credit hours is the Carnegie Unit, which states that 1 credit is equal to 15 hours of theoretical instruction or 30 hours of laboratory or 45 hours of practice. To calculate the approximate time of the amount of work that will be done outside the classroom, the Carnegie Unit establishes that each hour of

theoretical class is equivalent to a minimum of 2 hours of homework outside the classroom.

For the certificate level, the unit of measurement used to calculate credit hours is the U.S. Department of Education's definition of "conversion of clock hours to credit hours": a semester/quarter hour must include at least 30 clock hours of instruction.

#### General Dispositions

1. The definition of credit hours will be used to develop new programs and develop the course schedule.
2. Evidence of compliance with the amount of work represented by the expected learning outcomes for all programs and levels, regardless of the study modality, will be evidenced by the faculty in the student's grade register as the Supplementary Independent Component (CIS).
3. Every professor who has an assigned course will ensure compliance with the credit hours and will use the instruments established by the program or identified in the syllabus for such compliance.
4. The syllabi of all courses in the programs will specify the number of contact hours for the CIS in the General Information (under Contact Hours) and Methodology sections, as established in the Guide to the Syllabus. Each student's CIS will be evaluated in each academic term and a grade will be assigned. At the end of each academic term, the faculty will include the CIS grade in the grade register, as one of the evaluation criteria for the course.
5. The syllabi of all courses of all certificate level programs will reflect the number of contact hours of the CIS in the General Information (under Contact Hours) and Methodology sections, as established in the Syllabus Guide. At the end of each academic term, the faculty will include the CIS grade in the grade register, as one of the evaluation criteria for the course.

## ENROLLMENT

A student is officially enrolled at Columbia Central University (CCU) only when the entire admission and enrollment process is completed, and has satisfied all study fees, including, but not limited to any other special fees. It is also necessary to have a registration agreement and class program duly endorsed by the university.

The enrolling act of the student at CCU means total approval, acceptance, and endorsement to all the rules and academic, administrative, and student policies contained in this catalog and any other publications.

## ELIMINATION OF SCHEDULED COURSES

Every course that the university offers has been duly considered and its inclusion in the program of course offerings is due to the best goodwill to be fulfilled. However, due to imponderables that may arise, Columbia Central University notifies those reserves, at all times, the faculty and prerogative to open or close courses and/or study programs and/or alter the student's program after the end of the enrollment period, if the circumstances so require, depending on the circumstances to be interpreted by the university itself.

## CANCELLATION OF ENROLLMENT

The cancellation of enrollment is to discard (render without effect) a duly made official registration, prior to the beginning of classes for each term during the normal registration process. The student who enrolls and notifies the institution on or before the beginning of the semester classes that they will no longer attend will have their enrollment canceled. A cancellation implies that the student will not be penalized for the tuition costs. This does not refer to admission fees.

## **ACADEMIC OPPORTUNITY PROGRAM POLICY**

### **Policy Statement**

Columbia Central University (CCU) offers its services to those who want to improve academically and professionally. In keeping with this philosophy, the university has an open-door policy for all those who show a genuine interest in pursuing studies and who, in the opinion of the university, possess the necessary skills to pursue higher education.

In keeping with this open-door policy, the university may admit students who do not meet the prior achievement requirements. These students will be enrolled under the Academic Opportunity Program.

### **Applicability**

The Academic Opportunity Program (POA) applies to all those students who graduate from: high school, equivalency exams (Law 188 or GED), home schooling, or transfers to the undergraduate level whose average is less than 2.00 points and students at the graduate level who do not meet the minimum average income required for the program of interest.

### **Program Layout**

All students who apply for admission to an undergraduate academic program and their average is less than 2.00 points may be admitted to the university under the POA. The POA will also apply to students who apply for admission to graduate programs and do not meet the minimum GPA required for the program they are applying for.

#### **During the Pre-admission stage, the student:**

1. The Recruitment and Admissions Officer, once all those students below the required minimum average are identified, will proceed to refer them to the Guidance and Counseling Office (using the Guidance and Counseling Referral form for students with an average lower than 2.00 GPA for undergraduate programs and below the minimum average applicable to graduate programs).
2. The Counselor will proceed to interview the student, to determine the student's interest in continuing studies and identify the reasons why they did not obtain a satisfactory average and will complete the corresponding part in the Referral to the Guidance Office and Counseling form.
3. Will be oriented on the university Satisfactory Academic Progress Policy.

#### **After being admitted and enrolled:**

1. The student will be monitored to determine the level of integration and adjustment to university life around the following activities:
  - a. Attendance at classes at the undergraduate level. The Counselor will verify the attendance referrals made by the school.
  - b. At the graduate level, the student will verify the faculty census during the first 2 weeks of classes.
  - c. The follow-up to the students will be done through regular mail, email, calls, or summoning those students who are not actively participating to the office.
  - d. Academic progress
- i. The student's academic progress will be measured according to the parameters established in the Satisfactory Academic Progress Policy. If failure to achieve the minimum academic progress required, the student will be suspended from the University. The suspension will be valid for 1 year. After the year of suspension, the student may request reentry to the university and will be evaluated according to the Satisfactory Academic Progress Policy existing at the time of application. The University reserves the right to readmit it.

- ii. In case the student presents mitigating circumstances that have affected the academic progress, he/she may appeal to the Board of the Academic Opportunity Program; constituted by the Director/Academic Coordinator of the program, the Counselor, and the Retention Officer, to evaluate the case. The Board will determine if the student will be authorized to continue studies for a second term maintaining their POA classification. Students who receive a favorable appeal and do not make academic progress in the second term granted will be suspended from the University. This decision will be final.
- e. Tutorships
  - i. The student who holds a POA classification may be referred to benefit from scheduled tutoring services, according to their need. Tutorials are not compulsory, but it is recommended to participate in them so that the student achieves his/her academic objective.
- f. Tracing
  - i. The Guidance and Counseling Office will meet with the students monthly to evaluate how they are doing in their courses and, if necessary, examine other alternatives that contribute to the academic success of the same in conjunction with the Academic Dean.
- g. Workshops
  - i. The Guidance and Counseling Office will hold at least two workshops during the academic term related to adjusting to university life for the benefit of students classified under the POA and any other student who may benefit from them.

## **ATTENDANCE POLICY**

### **Introduction**

Columbia Central University is a university that is not required to take attendance; however, for the best student academic achievement, recommends attendance as required for all students in its courses, except in the practice courses. However, the student will be responsible for fulfilling the objectives and requirements of the course, as established in the syllabus.

### **Applicability**

This policy applies to all those students who are enrolled in a university program, regardless of the type of study, at the undergraduate level.

### **Dispositions**

1. It is the responsibility of the faculty together with its Directors or Academic Coordinators to comply with this attendance policy.
2. Unexcused attendance, tardiness, or leaving the classroom.
  - a. If a student is absent, it will be their responsibility to obtain the material covered in class.
  - b. Any student who is absent for 3 consecutive days, is frequently late, or leaves the classroom unjustifiably, will be referred to the Director or Academic Coordinator.
  - c. Those students who are absent for a period of 14 consecutive days without excusing themselves with their professors will be processed a retroactive withdrawal to the last day of attendance at the Registrar's Office.
3. Attendance of students enrolled in a program under the modality of distance education.

- a. Attendance will be defined by the participation of that qualifying academic task leading to evaluation as established or programmed by the professor in charge of the course.
- b. During the school period, the student must access the course at least once a week, as established by the teacher to carry out the tasks and assignments that are assigned.
- c. The student must participate in 100% of the activities programmed on the online education platform for the course they are taking.
- d. Failure to submit more than 2 tasks without justification endorsed by the professor, will be grounds for immediate referral to the Director or Academic Coordinator and will require an evaluation of the case. This will imply an immediate evaluation of the possibility of replacing the material in cases where it is feasible. If material replacement is not feasible, it would imply failing the course.
- e. Attendance at online education courses will be related to task deliveries and participation in the activities required by the professor. The students' attendance will be registered and updated according to their fulfillment of tasks delivery and participation in activities. The last day of attendance on the course will be determined based on the update of the students' attendance.
- f. Any qualifying activity worked by the student and completed in its entirety within the virtual classroom will be considered participation in the course. This includes but is not limited to participation in discussion forums, development, and submission of papers, responding to tests in their entirety within the established time, and responding to verification of readings assigned by the teacher, among others. The work done by the students, as part of their participation in the virtual classroom, will be completed on the platform established for this.
- g. The student will spend time checking the platform frequently to identify pending work, communicated by the teacher, homework, or other academic assets which are under their responsibility. The classroom assignments must always be completed in the time established by the professor.

# WITHDRAWAL POLICY

## Introduction

Columbia Central University (CCU) is a university which is not required to take attendance. However, for the best academic achievement Columbia has made it a policy to take attendance. Starting from this premise, the Dismissal Policy is based, whether official or unofficial.

## Applicability

This policy applies to all students enrolled in any academic program at the university, except those at the graduate level.

## Definitions

Official Withdrawal - Withdrawal that is requested by the student from one or all courses.

Unofficial withdrawal - Withdrawal processed by the University since the student is absent from all classes for 14 consecutive calendar days without being excused.

## Dispositions

### Official Discharges

They are those withdrawals that are processed through the student's request. Official withdrawals are classified as total withdrawals (including all enrolled courses) and partial withdrawals (does not include all enrolled courses).

1. The student will notify his intention to withdraw in the Counseling or Retention Office.
  - a. Intention to unsubscribe means that the student indicates their interest in not attending their classes or understands that, at the time of notification, they will stop attending classes.
  - b. All possible help will be offered to the students so that they can achieve their academic goal. From the student making the final decision to process the withdrawal, he/she will complete the Withdrawal Form, to determine the last day attended the University.
2. Once the withdrawal form is completed, the student will be referred to the Treasury Office for signature and guidance on the debt acquired, if applicable.
3. Then the student will be referred to the Financial Aid Office where the status of his file, financial aid and the official's signature will be verified.
4. Finally, the student will be referred to the Registrar's Office where the withdrawal will be processed, and the copy will be delivered to the student and to each corresponding office.

### Unofficial Discharges

These are those that are processed when the student stops attending the University. Students who are absent for a period of 14 consecutive days (including counting Saturdays, Sundays, and holidays) from all their classes without excusing themselves to their professors will be processed a withdrawal, retroactive to their last day of attendance at the Registrar's Office:

1. The Retention Officer will check daily the students who have 14 consecutive days absent, to determine those that correspond to an Administrative Withdrawal.
2. The Retention Officer will follow up on absent students and will document the information obtained in the weekly report.
3. The Retention Officer will evaluate each situation and file a withdrawal in those cases in which the student has not returned to the University. The last day attended will be determined and the Withdrawal Form will be sent to the Registrar's Office to complete the process.
4. The Registrar's Office will evaluate the withdrawal form and process it.
5. The Withdrawal Form will be sent to the corresponding offices for the Signatures of the Officers and for the processing thereof (Retention, Registrar, Collection, and Financial Aid).
6. Once the Withdrawal Form has arrived, and is completed by all the Officers, the Registrar's Office will proceed to send by mail a copy of the withdrawal made and a letter to the student notifying him that he was withdrawn from the University. A copy of the withdrawal and the letter will be sent to the student file.

### **Withdrawal cancellation**

1. Any student interested in continuing their studies after having processed any type of withdrawal may request that it be canceled within a period of 7 school days at the Registrar's Office.
2. To cancel any withdrawal process, the student must visit the Registration Office or Retention Office where he will request the Cancellation Form. Said document must be delivered complete and authorized in all its parties at the Registrar's Office. Cancellation must indicate that the student will continue to attend classes, and their intention is to complete the academic term. In turn, he will sign the Orientation Sheet for Withdrawal cancellation.
3. If after canceling the same, the student requests a new withdrawal, the effective date of the same will be the date on which the student for the first time notified the university of their intention to withdraw.

## **INSTITUTIONAL REFUND POLICY**

The Institutional Refund Policy regulates how Columbia Central University (CCU) 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 CCU 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 students' 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 students' 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%. CCU 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.

Completed Days in Payment Period / Total Days in Payment Period	Percentage of Charges owed to the Institution	Percentage of Charges to be Refunded
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 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.

# DEPARTMENT OF DEFENSE (DoD)

## TUITION ASSISTANCE RETURNED OF UNEARNED TUITION POLICY

### Preamble

Military Tuition Assistance (TA) is awarded to a student assuming that the student will attend school for the entire period for which the assistance is awarded. When a student withdraws, the student may no longer be eligible for the full amount of TA funds originally awarded. To comply with the Department of Defense (DoD) policy, Columbia Central University (CCU) will return any unearned TA funds on a prorated basis through at least 60% of the period for which the funds were provided. TA funds are earned proportionally during an enrollment period, with unearned funds returned based on when a student stops attending.

When a service member stops attending due to a military service obligation, CCU will work with the affected service members to identify solutions that will not result in student debt for the returned portion in compliance with the DoD policy.

### Purpose

To inform students receiving military tuition assistance (TA) of the required actions CCU will take to comply with the DOD Memorandum of Understanding Return Policy for Military Tuition Assistance (TA) funds rules and align with the return of unearned student aid rules applicable to the Federal Student Aid as required under section 484B of the Department of Education Title IV of the Higher Education Act of 1965.

### Scope

This policy applies to all students receiving Military Tuition Assistance (TA) for the Army, Navy, Marines, Air Force, and Coast Guard.

### Definitions

Military Tuition Assistance (TA) is a benefit paid to eligible members of the Army, Navy, Marines, Air Force, and Coast Guard. Congress has given each branch of service the ability to pay up to 100% of the tuition expenses of its members. Each branch of service has criteria for eligibility, obligated service, application processes, and restrictions. This money is usually paid directly to the institution by the individual branch of service.

This policy only applies to this type of educational benefit. The TA program is a benefit that is available only while the student is in the service. This policy does not apply to Veterans or Veteran's benefits.

### Procedures

To comply with the Department of Defense's policy, CCU will return any unearned TA funds through at least 60% of the course total days on a prorated basis. The amount of unearned TA that is returned is based on the date of withdrawal from the course. After 60% of the total course days have passed, TA will not receive any reimbursement for tuition.

### Department of Defense (DoD) Tuition Assistance Returned of Unearned Tuition

Department of Defense (TA) Returned of Unearned Tuition		
Total Days in a Payment Period	Earned Tuition	Unearned Tuition
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%

For additional information please refer to the following website: <https://columbiacentral.edu/asistencia-economica/programas-para-veteranos-militares/>

## LEAVE OF ABSENCE POLICY

Columbia Central University has adopted and promulgated a Policy for Requesting a Leave of Absence (LOA). The purpose of this policy is to establish the criteria and processes required for a student at Columbia Central University to get a Leave of Absence (LOA) under federal regulations, specifically 34 CFR 668.22 (d) Approved leave of absence and in compliance with institutional policies. A Leave of Absence (LOA) is a student's temporary interruption in the academic program in which the student is enrolled at the institution. A LOA should meet certain conditions to be considered an interruption, rather than a withdrawal. Out of the possible scenarios, the student should have a reasonable expectation of returning and should meet the eligibility criteria and reasons.

Any student who needs to be absent from the University for an extended period must notify the Registrar's Office in writing of the reasons for requesting a Leave of Absence (LOA). The LOA request must be submitted prior to the start of the LOA. The students' 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 semester immediately following the end date of the leave of absence.

If the student requests a leave of absence, he/she will retain the academic progress classification held at the time of receiving approval for the leave of absence. At the end of the semester, the student will be evaluated in accordance with the Academic Progress Policy. The leave of absence will not affect academic progress.

The granting of the license shall be governed by the following parameters:

1. Have a reasonable expectation of return.
2. The student must notify the institution in writing by completing and submitting the LOA request form to the Registrar's Office.
3. Request the leave of absence prior to the LOA start date unless unforeseen circumstances prevent it. Such a request must state in writing the reasons why you are required to be absent and must provide evidence. The following situations may be considered for granting a Leave of Absence:
  - a. Health problems (student or a family member's) and the student must submit evidence
  - b. Activation of safety management personnel.
  - c. Military activation (present evidence of the order)
  - d. Loss of a relative (submit death certificate)
  - e. Legal matters.
  - f. Personal matters (duly documented).
  - g. Emergencies such as atmospheric phenomena and epidemics, among others.
4. If the Leave of Absence Request cannot be completed in time due to exceptional circumstances, the Registrar will evaluate the possibility of granting it, under the condition that the student presents evidence of what happened and completes the request at a later date. This process must take place during the changes in the current academic calendar or by exception, if applicable.
5. In order for a student to be considered for an LOA, they must meet the following criteria:
  - a. Have a reasonable expectation of return.
  - b. Notify the institution in writing by completing and submitting the LOA request form to the Registrar's Office.

The leave of absence is granted for a predetermined period of time, with a realistic expectation that the student will return to the university. If, at the end of the authorized leave of absence, the student does not return to school, the date for any leave to proceed will be the day the leave of absence begins.

In the case of students with veteran's benefits and/or beneficiaries who request a leave of absence, payment will automatically be suspended by the Veterans Administration for the duration of the leave. Once the student or beneficiary returns to school, the Agency will proceed to continue their benefits.

**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 the following criteria:

1. The student must be enrolled in a program that offers courses in modules.
2. The student must be able to return to a future module in the same term (payment period).
3. 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).

# **POLICY OF ACCEPTABLE USE OF TECHNOLOGY**

## **Background**

Columbia Central University (CCU) recognizes that the use of technology and its resources in the work and student environment is highly susceptible to inappropriate use, ethical and legal violations. To that end, CCU has adopted the following policy to clarify the appropriate use of technology and the responsibility of users.

## **Introduction**

CCU is committed to promoting the ethical and responsible use of technological means and their resources. The use of technology resources is a privilege, not a right, and should be treated as such. Access to the Internet and technology is provided for professional, administrative, and educational purposes. Anyone who uses university technology is responsible for its appropriate use. By accessing and using technology, users acknowledge that inappropriate use is prohibited and may result in disciplinary action.

CCU reserves the right and has the means to monitor and control all network activities with or without prior notice, including emails and communications to all Internet sites, so users should not expect privacy when using these resources. The technology is provided to assist employees to carry out their tasks, educational purposes in the classroom, and for external and internal communication, among others.

## **Applicability**

This institutional policy applies to CCU teaching and non-teaching staff, both full-time and part-time, professionals, contractors, and all university students. The policy is a condition of employment and contracting with CCU.

## **Objective**

This policy offers the necessary support and guidance to clarify the responsibility of staff and students related to the appropriate use of the technology provided and the sanctions to be implemented for not complying with it.

## **Code of Conduct**

The technological infrastructure that CCU possesses is intended to ensure and satisfy the needs of the university community and its resources. It is necessary that everyone who uses our facilities observe good judgement and apply what is described in this policy. You must try to be careful in your activities and not try to alter or circumvent the security measures provided by the institution. When necessary, you should request technical support.

## **Collaborative Content**

CCU provides the university community with access to online sites and services that allow it to communicate and exchange messages or content in a secure manner. It is recommended that the user always communicates in a courteous and professional manner. All electronic messaging activity may be monitored.

## **Security**

In compliance with Law 267 of 2000, our university has acquired several security systems. These systems provide security for all our computer networks at the institutional level. These systems provide us with a virtual surveillance mechanism in real time for all the computing activities carried out in our student network and administrative services.

Additionally, it is recommended that the user take security measures when using the computer resources of the university. This includes not opening and/or distributing unknown or questionable files, leaving personal or sensitive information on the screen when leaving the computer. The equipment should not be used to print personal and/or sensitive information that may be exposed to others. It is not recommended to disclose sensitive or personal information on pages that are not secure. If you see a message, comment, image, or anything else online that is thought to endanger personal safety or the University, it should be brought to the attention of a professor or supervisor immediately.

Personnel who, as part of their duties, handle sensitive information must take the necessary precautions to protect said information. You must not share your information system access credentials with another user.

To maintain our equipment and systems at an optimal level, we recommend our users report any malfunctions to the Department of Information Systems as soon as possible. Users are not allowed to fix computers or try to remove viruses by downloading programs.

### **Rules of Conduct on the Web**

Users must use reliable sources when carrying out their research through the resources offered by the university. Users in the academic area should not store personal information on university computers. This information could be shared and disseminated in an unexpected way.

CCU will not be responsible, financially or in any other way, for unauthorized transactions carried out on the technological network or for the damage, theft, or destruction of personal property devices.

### **Copyright Policy**

The university has a Copyright Policy (Employee and Faculty Handbooks, Student Consumer Handbook) to which users must refer to the handling of information in such a way that is not violated. When using online information to carry out work and research, the user will have the responsibility to adequately cite the sources from which they were obtained, giving credit to the original author.

### **Cyber Bullying**

Cyberbullying, as set forth in our Institutional Bullying/Harassment and Cyberbullying Policy (Employee and Faculty Handbooks, Student Consumer Handbook), will not be tolerated. Harassing, disrespecting, sending harassing or threatening messages, demeaning, impersonating, disclosing confidential information about a person, misleading, excluding, and online harassing are all examples of cyberbullying. You should not send electronic messages or post comments with the intention of frightening, hurting, harming, or intimidating someone.

Engaging in these activities or engaging in any online activity intended to harm (physically or emotionally) another person, will result in disciplinary action as set forth in our policy. In some cases, cyberbullying can be a crime. All user activity is monitored.

## **Acceptable Uses of Technology**

The technology provided for our users can be used to:

1. Access the infrastructure and resources for activities related to the university.
2. Promote the responsible use of university resources.
3. Treat university property carefully and notify technical support staff if any problems occur with its operation.
4. Immediately notify a professor or supervisor if you see threatening, questionable, or inappropriate content online.

## **Unacceptable Uses of Technology**

1. Post unauthorized information/graphics belonging to the university, its employees, or its students.
2. Visit improper or inadequate sites.
3. Design, create, or post sites that do not follow the standards of the university.
4. Use logos without authorization from the university.
5. Use online chat rooms. This does not apply to the Chat tool in Canvas LMS or MS Teams.
6. Violate the copyright of information obtained through the web. Make or use illegal copies of copyrighted software, store such copies on CCU systems, or transmit them over university networks.
7. Access video games for recreational use.
8. Access social media sites such as Facebook, Twitter, Instagram, and others during work and/or class hours; excluding personnel assigned to use said sites for purposes aimed at promoting the university of its educational programs.
9. Access sites to view or download movies or TV shows.
10. Send inappropriate emails such as: nonessential messages including jokes, thoughts of the day, chain emails, political ads, personal commercial use and making comments that affect the institutional image.
11. Gain access to or use another person's system, files, or data without permission.
12. Share a password or other means of authentication with any other person, either internal or external to CCU.
13. Use computer programs to decode passwords or access control information.
14. Attempt to circumvent the security measures of the system or the institutional network.
15. Engage in any activity that is intended to harm systems or any information stored on them, including creating or spreading malware; discontinuing services; or make unauthorized modifications to CCU data.

## **Confidentiality**

No personal or private email is confidential. Emails may be subject to revision without notice.

## **Disciplinary Actions for Employees**

All violations will be handled like any other infraction of university policies and sanctions will be applied as established in the Employee and Faculty Handbooks. These sanctions can range from a written reprimand to dismissal, depending on the seriousness of the violation.

## **Disciplinary Actions for Students**

All violations will be handled like any other infraction of university policies and sanctions will be applied as established in the Student Handbook. These sanctions may include a written warning, suspension, or expulsion, depending on the seriousness of the violation.

# INSTITUTIONAL DISTANCE EDUCATION POLICY

## Introduction

Columbia Central University (CCU) recognizes the value of distance education as a means to further its educational mission and reach a diverse student population with a wide range of needs. The purpose of this policy is to provide institutional standards and definitions for distance education in order to guarantee the academic quality that characterizes CCU is maintained in all distance education programs and courses. This policy will be applicable to all administrative staff, faculty, and students of all CCU campuses, distance education programs, and online courses as defined in the Terms and Definitions section of this policy; and contractors related to distance education.

## Applicability

This policy shall apply to all administrative staff, faculty, and students of all CCU campuses, distance education programs and courses as defined in this policy, and distance education related contractors.

## Definitions

- **Distance Education:** Educational process in which all or most of the instruction occurs with faculty and students in different locations using one or more types of technology to support regular and substantial interaction synchronously (in real time) or asynchronously between parties in order to develop skills and competencies in students. The types of technology that can be used are the internet, satellite communication, and audio and video conferencing.
- **Online Program:** Academic program authorized to be offered through distance education delivery method. In these programs, 100% of the required courses are offered in a distance education format.
- **Hybrid Program:** Academic program authorized to be offered through distance education delivery method in a combination of onsite and online courses. For ACEN-authorized programs, if 25% or more of nursing courses are offered online.
- **Onsite Program:** Academic program authorized to be offered in face-to-face mode in the campuses for which it is authorized. In these programs, up to 49% of the courses could be offered online.
- **Online Course:** Course that offers 100% of the total hours of instruction through the internet using the synchronous and asynchronous communication tools available on the Canvas LMS.
- **Onsite Course:** Course that requires the physical presence of the professor and the student(s) in the classroom and/or university laboratory for 100% of the hours of instruction.
- **Onsite Course with Online Support:** Face-to-face course that integrates the Canvas platform as a support resource for the teaching and learning process. This support can be for sending assignments, reviewing material, practice exercises, among others. This support does not replace synchronous meetings according to scheduled times. Synchronous meetings could be with faculty and students in the classroom or with faculty in the classroom and students from home or elsewhere connected through MS Teams on Canvas LMS.
- **Faculty:** Any qualified person who performs instructional activities in a course. It is responsible for the quality and content of instruction.
- **Substantial Interaction:** Engage the student in teaching, learning, and assessment, consistent with the content under discussion, and includes at least two of the following:
  - provide direct instruction,
  - assess or provide feedback on student work in the course,
  - provide information or answer questions about the content of the course or competition,
  - facilitate group discussion about the content of the course or competition,
  - other instructional activities approved by the regulatory entities.

## **Provisions**

To maintain the highest academic quality, consistent with our mission and institutional and accreditation standards, all distance education programs and courses offered by CCU must meet the requirements established in this policy.

The requirements are based on the standards for the evaluation of distance education of Middle States Commission on Higher Education (MSCHE), Accreditation Commission for Education in Nursing (ACEN) and National Council for State Authorization Reciprocity Agreements (NC-SARA); and have been specifically developed based on CCU's mission and context.

## **Fulfillment of the mission and policy**

All distance education efforts must be consistent with the institutional mission and are subject to CCU policies.

### **Academic Quality**

All distance education programs and courses will meet the same academic requirements, quality standards, and student learning objective's evaluation of face-to-face programs or courses offered by CCU. The faculty must guarantee the same academic standards for distance education students as those that apply to face-to-face students and provide syllabuses that contain rubrics to evaluate the learning expectations of the students.

To ensure academic quality, CCU will evaluate the syllabi, planned learning outcomes, and effectiveness evaluations of distance education courses according to consistent standards that are used with face-to-face courses.

### **Delivery Methods**

All online courses and face-to-face courses with online support will use Canvas LMS to deliver prescribed and validated academic content. Faculty is required to enrich the course with additional content of their own and may integrate other websites or external tools at their discretion, but they must be accessible or linked through Canvas LMS.

Regardless of the modality used, reasonable efforts must be made to ensure that all course content is accessible to students with disabilities.

All faculty teaching distance education must comply with federal and state law and university copyright policy in the preparation and delivery of course material.

Faculty and administrative staff must take the same care with the educational files and records of distance education students as they do with face-to-face students.

### **Student Identity Verification**

CCU has to authenticate the identity of all distance education students (hybrid programs and online programs). During the admission process, the applicant will be required to present a copy of a state identity document.

For class registration, students must send the same identity document legalized by a notary of the country or state in which he/she resides. This document must be the National Identity Document (DNI), identification

issued by the state or country of origin or passport valid by the expiration date. In the event that the applicant can appear in person at the CCU offices, he/she has the option of validating their identification at our offices without notarization.

All students at CCU are provided with a unique university-issued username and password for secure access to university systems, including for distance learning, after the registration process is completed. It is against university policies for a user to give someone his or her password or to allow others to use his or her account (Acceptable Use of Technology Policy, Online Services Use and Security Policy, and the Institutional Policy on Copyright and Academic Integrity).

Faculty must verify distance learning student identity prior to any in-person or online classroom activity and may require students to present a state or federal government-issued photo ID or turn on their camera at any time to receive the service or participate in the activity. When enrolling in an online course, the student accepts the use of the camera and the microphone in order to verify his/her identity. For more information on the use of cameras, see Guidelines for camera usage in distance education.

### **Institutional Support**

Distance education students shall have access to all the academic support services, instructional equipment and services, campus events, and other non-academic activities, which the teaching instruction provides for other students. Support services may include but are not limited to:

- **Academic Advising:** students can visit the campus for in-person advising. Students who are unable to attend campus may receive academic advising by phone, email, or other electronic means. In such cases, students should contact the academic dean of the campus to obtain contact information for their advisor.
- **Counseling:** students can receive support from the Guidance and Counseling Office in person, by phone, email, or other electronic means.
- **Disability Support Services:** students needing accommodation for disabilities must apply to the Counseling Office in person, by phone, email, or other electronic means. The application must include a medical certification that specifies the required accommodation and shall be requested in advance.
- **Tutoring Services:** students can request the service through the Counseling Office in person, by phone, email or by other electronic means. They can also be referred to by the faculty, retention official, or other academic staff.
- **Library and Learning Resources:** CCU library has a wide range of support systems for distance education, including virtual resources, virtual reference, open access resources, electronic books, among others. This service is integrated into all courses through Canvas LMS.
- **Canvas Support:** for any assistance related to Canvas LMS, users can submit a service request by email at [apoyocanvas@columbiacentral.edu](mailto:apoyocanvas@columbiacentral.edu).
- **Technical Support:** for technical support, users can submit a service request by email at [apoyotecnico@columbiacentral.edu](mailto:apoyotecnico@columbiacentral.edu) or call 787-745-7005 (Monday to Friday 8:00am – 5:00pm).

For more details on institutional support services, please refer to the Student Consumer Manual.

### **Requirements and Expectations for Distance Education Faculty**

As with face-to-face courses, faculty assumes primary responsibility and oversight for online courses, ensuring both the rigor of the courses and the quality of the instruction.

**Validate student attendance:** every faculty must contact each student enrolled in an online course to ensure that the student accesses it during the first two weeks of class. In addition, he/she must register student

attendance at Campus Portal.

**Office Hours:** each distance education faculty shall schedule a minimum of two (2) synchronous office hours per week to attend students through Canvas LMS tools. The faculty must report these hours to Academic Dean and post them on the online course home page the first week of class.

**Response Time:** faculty in online courses are required to maintain a maximum response time of 24 working hours to answer students' emails or Canvas messages and are expected to display high levels of social and cognitive presence, as well as high-quality writing skills.

High-quality social presence is defined as:

- The faculty accesses the course and the discussion forums several times a week.
- The faculty publishes announcements or sends course communications several times a week.
- Posts are directed at students. Professor demonstrates professional behavior and evidence of respect for diversity and the viewpoints of others.

High-quality cognitive presence is defined as:

- Professor encourages discussion.
- Posts are clear, original, and relevant.
- Reasoning shows well-developed analytical skills and critical thinking.
- Faculty encourages the students to achieve their objectives.
- Faculty provides appropriate supporting details and examples. High-quality writing skills are defined as:
  - All posts are well written and demonstrate accurate spelling and grammar, good organization, careful editing, conciseness, and clarity.

For detailed information on communication expectations, see the Policy for Faculty-Student Communication in Distance Education.

**Interaction:** interaction, like communication, is a vital factor in distance education. A student who feels engaged in the course is more likely to complete it and report a positive distance learning experience. It is the professor's responsibility to integrate strategies for substantial interaction with students and between students.

This interaction can occur synchronously (videoconference, chats, polls, telephone) or asynchronously (discussion forums, videos, audios, announcements, activities, exercises, links to web pages, surveys). The faculty is responsible for instructing students and managing their online courses with appropriate and innovative teaching techniques to engage students in active learning in order to achieve desired learning outcomes.

All instructors must include in the online course a personalized welcome, their contact information and synchronous office hours, academic closing at the end of each module and a course recap message prior to concluding the course. For more details see the Course Planning Guide.

**Student Referrals:** Faculty of online courses, as in face-to-face courses, are expected to refer students to the various service offices as needed. Referrals must include, but are not limited to retention, orientation, counseling, tutoring, library.

**Qualifications:** All faculty must obtain certification in distance education and use of the Canvas LMS prior to offering an online course. This requirement may be obtained through the university's Faculty Training in

Distance Education Fundamentals and Canvas LMS course, through an organization or entity previously approved by the vice presidency of academic affairs, or when it is determined that previous teaching experience is sufficient to guarantee the quality of instruction. If faculty obtains the certification from an external organization or entity, he/she must submit a copy of the certificate awarded that demonstrates it.

It will be the associate vice-presidency of curricular innovation and distance education in collaboration with the vice-presidency of academic affairs who will determine if the previous experience of the professor is sufficient to exempt him/her from certification. In addition, online teaching evaluations to faculty will be considered for future course assignments. All professors who take the Teacher Training course offered by CCU must teach one online course prior to receiving the corresponding certificate. For more details see the Faculty Recruitment Manual and Lecturer Manual.

**Faculty evaluations:** It is the responsibility of the academic deans to coordinate the faculty evaluation process, according to the procedures described in the Faculty Evaluation Manual. In addition, students have the opportunity to evaluate the performance of the faculty in each online course. All faculty assigned to an online course will be evaluated in their administrative and teaching management, regardless of their type of contract.

**Academic load:** Distance education courses are part of the teaching load of the faculty, with the same compensation as face-to-face courses. Online courses can also be taught as an overload, with the same compensation rate as face-to-face courses. Any exception will be reviewed on a case-by-case basis and the Vice President for Academic Affairs will make the final determination. For more details see the Faculty Manual.

**Ownership of Materials:** Faculty must be aware of copyright, trademark, and licensing provisions when offering distance education courses, and therefore must be familiar with CCU's Copyright and Academic Integrity Policy. Examples include the use of photographs, graphics, text selections, audio, or video clips. It is the faculty responsibility to acquire and document the usual permissions prior use of protected material.

Ownership rights to materials developed by the faculty are governed by the relevant agreement between the faculty member and CCU and will be determined, in part, by whether or not the faculty member was paid additional compensation (stipend) for developing these materials. "Course Materials" shall include additional course notes, lectures, syllabi, reading lists, assignments, tests, guides, content in any media (written, visual, audio), among others.

**Course Development Agreement with Stipend:** CCU will own copyright materials in distance education courses for which the faculty members will receive additional compensation based on the parties' course development agreement.

**Non-Stipend Course Development Agreement:** All faculty members must enrich the prescribed content of distance education courses as part of their duties without receiving any additional compensation. In this case, faculty has the right to the materials for their exclusive use. This content will not be part of the course template on future occasions. CCU may, with the written permission of the professor, receive a non-exclusive right to use the materials for educational purposes, including derivative use rights, regardless of whether the professor is assigned to teach the course or remains employed by the university.

#### **Development and approval of online courses**

All online courses at CCU are considered comparable to face-to-face courses and adhere to the same standards, prerequisites, and course requirements as face-to-face sections of equal courses. To encourage high-quality course offerings, online courses must not only meet the same quality standards as face-to-face courses, but additional review is also necessary to ensure the suitability and feasibility of CCU's chosen instructional format for teach the course. Online courses must be approved by CCU before being taught.

The Associate Vice President for Curriculum Innovation and Distance Education is responsible for the development and implementation of online courses and supports the Subject Matter Expert (SME) in aspects of course design and development. This support is offered through a combination of online activities, face-to-face workshops and individual consultations that prepare SMEs to develop courses in line with CCU's course quality review, either by internal CCU staff or external staff hired for said purposes. All courses will be designed based on 8 modules equivalent to: 1 week for each module in graduate courses and 1 week in module one and two weeks in modules 2 to 8 in undergraduate courses.

### **Review of Course Design Quality**

Based on the standards of best practices, as well as the principles of research and instructional design, CCU carries out several processes to guarantee the quality of online courses and support continuous improvements in them. During the course development process, the quality of the course is addressed in the following:

- Originality, innovation, timeliness, and depth of the content
- Alignment of content with objectives, instructional activities, and assessments
- Interaction and feedback
- Grammar and orthography
- Technology and course tools

### **Distance Learner Requirements and Expectations**

Distance learning students will be held to the same academic standards as face-to-face students and are subject to the Institutional Policy on Copyright and Academic Integrity and other student conduct policies. Distance learning students should also be aware of other relevant academic policies and regulations, including those related to admission, registration, tuition, refund, credit transfer, and attendance. It is the student's responsibility to check the university's website for more details on institutional policies.

CCU may limit the extent to which students enrolled in face-to-face programs may take online courses in their program of study to comply with applicable state and federal regulations.

Every student on an online course has the responsibility to:

- Complete the affidavit when registering to verify his/her identity. If he/she can present documents onsite, he/she will be exempt from this responsibility.
- Accept the use of the camera and microphone in order to verify his/her identity.
- Participate in the training on the use and management of the Canvas platform that the university offers each semester or review the tutorials on [www.comousacanvas.com](http://www.comousacanvas.com).
- Access Canvas LMS at least once a week to carry out the activities and actively participate in the enrolled online course.
- Study the contents offered, investigate the indicated topics, and meet the requirements according to the course syllabus.
- Send some communication to faculty with a frequency not greater than 14 calendar days. This communication may be related to course content.
- Send any communication to another classmate related to any group activity of the course with a frequency not greater than 14 calendar days.

- Respect the correct use of information sources and the copyright of all content susceptible to intellectual property.

According to the principles established in the Institutional Policy on Copyright and Academic Integrity, acts of falsification, misrepresentation, intellectual dishonesty, whether intentional, unintentional or deception will not be tolerated. To that end, the use of artificial intelligence (AI) generative tools is not permitted to complete course assignments unless the instructor permits their use for specific purposes and with precise instructions.

In the event that instructors authorize the use of these tools, it must be governed by the rules established by the Institutional Policy on Copyright and Academic Integrity, in the section on Mechanisms available to detect plagiarism. At the certificate, associate degree, bachelor's and master's degree academic levels, 75% of the content must be original work by the student. A maximum of 25% of the communication may be a work obtained from various sources of information, which must be properly cited according to the style standards of the American Psychological Association (APA) Seventh Edition.

It is essential that the faculty guides the students on the use of AI tools and provides clear instructions on correct citation, following APA standards. This is so that students recognize and demonstrate their commitment to the principles of Columbia Central University's Institutional Policy on Copyright and Academic Integrity. Otherwise, the corresponding disciplinary measures will be taken, with the objective of preserving the value of the education we offer at our institution.

Columbia Central University has a tool that allows the instructor to identify the percentage of academic similarity that a student's work may have with other sources found on the WEB. Turnitin has recently made an update to include the detection of generative AI tools in student work for English.

For more details, see the Institutional Attendance Policy and the Guide on the use of generative Artificial Intelligence tools in the Classroom provided to the faculty members.

# USE AND SECURITY OF ONLINE SERVICES POLICY

## Introduction

The university community commits to accept the conditions stipulated in this policy, in which the use of services for exclusively academic and administrative purposes is indicated, which prohibits any commercial use of the network, as well as any inappropriate practices or any other activity that tends to affect other users in the privacy of their information.

Columbia Central University (CCU) offers online services to its entire university community. Its use is limited to academic and administrative purposes. The online services are used entirely at the user's own risk. CCU will not be responsible for any loss, damage or inconvenience arising directly or indirectly from the use of any of the University's online services. Although every effort will be made to maintain the services, facilities, and the integrity of the information and software, CCU does not accept responsibility for the malfunction, loss of data or software or the violation of any security mechanism, except to the extent legally required.

## Objective

This document establishes the rules and procedures for the use and management of the university's online services in a safe, legal, equitable, and considerate manner.

## User codes, passwords, data, and its protection

User accounts are provided for work and study purposes. They are not private. All electronic communications using University user accounts belong to CCU (including their content and attachments). Electronic messages can be disclosed in legal proceedings and can be recovered even after a user has deleted them.

- a. All registered users will be responsible for protecting their username and data from any unauthorized access.
- b. Any unauthorized access to a username will be notified immediately by the affected user.
- c. Access to user accounts other than your own is prohibited.
- d. The accounts are not meant to be shared, the user must preserve their password and change it regularly as required by the system.
- e. CCU reserves the right to cancel at any time any user account used for any purposes other than those authorized.
- f. In rare circumstances, it may be necessary for CCU to gain access to an individual user account. For example, sudden or unexpected absence, to address legal compliance situations, or to advance a legitimate college need. Said access must be authorized by the president & CEO or the rector of the venue.

## Technical Support

- a. If the student or user has problems with their account, they will have several alternatives to solve their problem:
  1. Call the Department of Information Systems and request technical support.
  2. Send an email.
  3. Complete the online service request, visit <https://columbiacentral.sysaidit.com/servicePortal>.
- b. CCU technicians do not provide technical support nor are they responsible for the hardware or software installed on personal equipment, that is, laptop or desktop computers, or mobile devices that are not owned by CCU.

### **Student Information System (SIS)**

- a. These systems are used to store, manage, and exchange information between offices to streamline services to students.
- b. These systems are used by CCU employees to manage student information.
- c. Every employee will be responsible for protecting their username and password.
- d. The employee must not leave their system account open while they're away from their desk.
- e. The employee is responsible for ensuring the access granted to all CCU systems to which they are authorized to work.

### **University webpage**

- a. The electronic website, [www.columbiacentral.edu](http://www.columbiacentral.edu), allows students to acquire useful information and tools from CCU.
- b. The webpage provides access to publications and student services.

### **Protection or Backup of Information Systems**

The content of the systems is safeguarded by the university's Department of Information Systems to guarantee the availability of the information and protect the information of CCU students.

### **Software and web applications to support the academy**

- CCU makes software and web applications (Canvas LMS, Inmediata, SIMTICS, VSim, Rx30, CT Program, Innovations, 123 Pets, SAIL, among others) available to users to support the academic process.
- The use of these resources is limited to employees, officially enrolled students and the faculty assigned to the courses, according to the terms of the corresponding contracts and licenses.
- It is the user's responsibility to safeguard and protect the access credentials granted by CCU.
- CCU will provide training (face-to-face, virtual, manual) in the use and management of the various applications to users.
- Technical support will be channeled through the Online Service Request.

## **INSTITUTIONAL POLICY ON COPYRIGHT AND ACADEMIC INTEGRITY**

### **Introduction**

Columbia Central University (CCU) recognizes integrity as a fundamental principle that must be present in all the resources that make up the academic community, as it promotes an academic culture based on integrity and honesty. Conduct that threatens a healthy academic activity, including plagiarism, is strictly forbidden and if it occurs, it will be investigated and sanctioned according to the seriousness of the incident. This policy always applies to full-time and part-time CCU faculty and staff, contractors, visitors and students at the university.

CCU adopts this policy to protect, acknowledge, and disclose the legal protection of copyright and to publicize the scope of Federal law and the legal responsibility of the parties. In addition, to notify the entire university community of appropriate and inappropriate academic conduct to ensure fair treatment, clear process, and consistent application in the administration of this policy.

CCU will not tolerate acts of falsification, misrepresentation, intellectual dishonesty, intentional or unintentional, or deception. Academic dishonesty includes, but is not limited to, copying, plagiarizing, fabricating data or citations, stealing exams for distribution or sale, engaging in academic activity by another student, using technology to distribute exam or quiz questions and answers, tampering with the work of another student or faculty, facilitating acts of academic dishonesty by others, academic sabotage, and turning in work completed in another course.

## **Legal Base**

CCU's Institutional Copyright Policy recognizes as relevant and applicable to copyright protection the following statutes as part of the Federal Copyright Act of 1976, as amended (Copyright Act of 1976, 17 U.S.C., 101; and Act No. 96 of the Commonwealth of Puerto Rico of July 1988, as amended). 17 U.S.C., 101; and Act 96 of the Commonwealth of Puerto Rico of July 15, 1988, as amended.

These laws establish legal protection to the authors of original literary, dramatic, musical, artistic and other intellectual works in the partial or total reproduction without prior authorization of their creators. It is illegal to violate these rights for one's own benefit or for the benefit of others, and such violation carries penalties under the law.

## **Intellectual Property and Copyright Protection**

Copyright protection arises from the moment a work is created and transmitted in a tangible form of expression. In the case of works made under contract, the employer is considered the owner of the exclusive right of use. In order to use part or all of a copyrighted work, authorization or permission from the author is required for its use (Copyright Clearing Center).

The following creations are protected by copyright:

- literary works (poems, essays, novels, among others)
- musical works, including vocal accompaniment
- dramatic works
- speeches
- pantomimes and choreography
- photographs
- graphic arts
- sculptures
- films and other audiovisuals, recordings, computer programs
- architectural works
- digital programs (software)

## **Copyright in the Academic Environment**

Copyright applies to all literary creations, so it is the responsibility of every academic institution to guide faculty and students to ensure compliance with this federal law. In terms of course materials (textbooks), CCU does not encourage any copyrighted material to be reproduced by faculty, students, employees and other contractors.

The faculty may occasionally use images, music, and films that relate to the curriculum to be taught in the classroom. Reproduction of content from licensed databases is permitted. An example of this is journal articles, whose complete content and multiple copies may be used to support courses.

## **Fair use**

"Fair use" is a concept that recognizes that certain uses of protected works do not require authorization from the author. It establishes that the use must be minimal, must not interfere with the author's exclusive rights, and must acknowledge the author of the work. Regarding physical and digital reserve in the CCU Library System, these subscribe to the copyright (Section 107 of the Copyright Act) and fair use doctrine that provides the principle behind reserve collections.

Section 107 presents a four-factor approach to measuring fair and reasonable use that is different and simply directs libraries in general to assess whether a use is fair by considering: the character of the use, the nature of the work to be used, the amount used in proportion to the whole, and the impact on the labor market.

### **Factors to Help Determine Fair Use**

- The purpose of the use, including whether the use is for commercial purposes, if there is an academic benefit, it is not considered fair use.
- The purpose, educational if performed by a non-profit entity.
- The nature of the work is also considered.
- The amount of the portion used in relation to the total work.
- The effect of the use on the market of a work or protected work.

### **Examples of Fair Use**

- Quotes from extracts for illustrative use, comments, or criticism.
- Quotes from short passages of school or technical work, for illustrative purposes.
- Limited use of poems, essays, and stories. No more than 3 of the same authors must be reproduced in collective work during the same academic period.
- Newspaper articles that illustrate the topic of the class to be discussed, for non-repetitive use.
- News
- For parody or small portion use.
- Summary of an article that includes quotes or short portions.

The use of materials under fair use should not substitute or replace compilations, collective works, manuals, or text.

### **Plagiarism in the University Environment**

CCU offers comprehensive and exhaustive information on compliance with the Copyright Law. Supporting this document, additional information is offered in the Rules and Policies Manual, in which the acceptable parameters of reasonable use of the protected material in the exercise of academia, teaching, and learning are offered.

Technological changes, access to information on the network and the ease with which information resources can be used in the academic field at CCU will observe the corrective measures regarding the detection of use and abuse of protected material, and the action of plagiarism at the institutional level.

CCU recognizes integrity as a fundamental principle inherent to the entire academic community. This principle prevails in all academic assets and all the modalities that CCU offers as part of its teaching-learning process. Academic integrity is the basic guide for professors, students, and administrative staff conduct.

Academic integrity includes ethics in research and the promotion and prevalence of academic honesty, and integrates the universal principles of:

- honesty
- trust
- justice
- respect
- responsibility

How plagiarism is defined and how it is constituted:

- The Royal Spanish Academy (RAE) defines it as "the action and affection of substantially copying other people's works and being awarded ownership" (original creation as own).
- Use a large portion or copy a work in any format (written, representations and documents, others)

and adjudicate themselves as own and original work without the citations and references corresponding to its original author.

#### How to avoid plagiarism:

- Verify and note the source of origin of the information presented.
- Cite the phrase or paragraph directly from the original and prove the authority and source by means of a citation or bibliographic reference.
- Paraphrase the original words of the author and prove the authority and source by means of a citation or bibliographic reference.
- Educate the faculty and students in workshops on the use of the Style Manual of publications of the American Library Association (ALA, 2010).
- Take internal measures to identify plagiarism.

The use of "disclaimer" phrases, stamps, or writings does not constitute good faith use of materials beyond fair use, in the teaching and learning process to present them as authentic. This action does not excuse the user from the authenticity and authorship of the document(s) of others, when you present your name and that of the institution on the title page, in research papers and class presentations and student work in groups.

#### Use of Materials in the Library and Reserve

Section 108 of the Copyright Act establishes that reproduction (photocopying) by libraries and preservation archives does not constitute a violation of law if it is to provide access to resources for the purpose of study and research. This was established for educators, librarians, and archivists by the following clarification of the article, "it should not, in some cases, influence the possibility to use photocopies for reserve books". The library can reproduce resource materials related to archives and replace lost or damaged copies. In the reserve area, members of the faculty may locate personal books that are not available in the collections and items, if fair and reasonable use is observed.

#### Internet Materials

The works published on the Internet do not lose copyright and are subject of intellectual protection for which; before using them, we must ensure that this protection is not violated. There are sites on the Internet that allow the material reproduction and have permitted use, as stated on their pages (community commons and open source).

#### Distribution of Copyrighted Material

It is prohibited to illegally download and share information from files using the computerized systems provided by the university. Unauthorized person-to-person distribution of material protected under the law is prohibited. Such material includes, but is not limited to sharing music files, video games, movies, computer software, and photos. Such action is subjected to civil and criminal charges.

#### Mechanisms Available to Detect Plagiarism

The university has tools for the use of academic and administrative personnel, with the purpose of identifying plagiarism in documents generated in the academy and administration. The tool can be used through the online platform, among others. All work to be evaluated will be submitted through the tool and an analysis will be received indicating the percentage of authenticity for the detection and control of plagiarism. All work produced is expected to be 75% original and a maximum of 25% obtained from various sources of information, which must be properly cited according to APA.

## Copyright Protection and Online Education

In terms of distance education, only excerpts or limited portions of dramatic works, music, and audiovisual works can be shown. The law does not allow the reproduction or duplication of content of:

- Electronic reservations (electronic or printed “course packs”) or Interlibrary Loans (ILL).
- Access and reproduction of electronic books in collections of other institutions.
- Partial or total electronic transfer of commercial documents.
- Textbooks or other digital content provided under license from the author or publisher, unless there is an institutional license for the content and use, provided by the source suppliers.
- Materials in a printed format analogous to digital format without prior authorization and when there is no digital version of the work.

The Fair Use Dispositions and the 'Teach Act' (2002) indicate that professors may use the following resources to conduct their courses online without the permission of the author:

- Artistic or literary representations (example; poetry, plays, movies, or musical works). It is important to assess whether an extract is used and that it cannot be copied. It is recommended that live broadcasts be used (streaming or links that can be accessed by the student).

## Student, Faculty, and Employee Work

CCU recognizes the authorship of faculty and student works and documents created in the normal course of academic and study activities, unless otherwise agreed. However, CCU will be recognized as the author of those works that are the product of the exercise of administrative or academic functions specifically commissioned and contracted by the university.

CCU establishes that the authorship of its work does not exempt it from the responsibility of granting the university the due explicit recognition, as appropriate, for contributions, support or collaborations that made possible its design, development or dissemination. Likewise, it does not relieve students of their responsibility to indicate whether their works were developed as part of course or degree requirements. In any case, CCU retains the right to claim such recognition. It is the responsibility of employees and students to register and protect works under their ownership.

Authors will retain ownership of works developed during sabbaticals, leaves of absence, assignment substitutions, highlights and other similar situations, unless previously agreed upon. Ownership of thesis works, and other similar academic requirements shall remain with the student(s), even if they receive academic credit for them, unless otherwise agreed.

## Procedures for Resolving Disputes Regarding Copyright Ownership

In the event of a controversy over the ownership of works and copyright or related to any other provision of this policy, said dispute will be submitted to the consideration of the Chancellor, who may make a consulted determination for his/her decision, final and firm, on the matter according to with law dispositions and applicable regulations.

## Tools for Monitoring Compliances with this Policy

CCU has technological equipment that makes it possible to use, as a preventive measure, to compare and monitor through reports, the bandwidth, and the network traffic to determine if there are any anomaly and, therefore, violations of this policy.

## Legal Alternatives to Using Copyrighted Material

At CCU, it is possible, under certain parameters, to use materials without the need to request authorization

or permission from the author, if the Dispositions of this fair and reasonable use policy are complied with.

1. **Materials created by the Professor** – Instructors can publish materials of their own, such as course summaries, exercises, tests, investigations, and presentations, among others. If another user uses these materials, they must fill out the authorization sheet.
2. **Materials for which CCU has acquired licenses** - CCU has digital collections in the Virtual Component for which it has obtained licenses and agreements with each provider of these resources. The provider and not the institution assumes the control, limitations of reproduction and use of these materials.
3. **Materials in the public domain** - There are materials not protected by the Copyright Law that can be published in electronic reserves or on websites, without the permission of the copyright owner.
  - Materials that have entered the public domain because protection has expired copyright law (70 years after the death of the authors).
  - Works or documents from the governments of the United States and Puerto Rico.
4. **Links to content from websites** - Links from electronic sites can be included and cited. The document must state that the person who creates the link is not responsible for its content.
5. **Works with Creative Commons licenses** - If the material has a Creative Commons license, it means you have copyright. The user who accesses these materials may reproduce in its entirety the work for study, research, and reference use in academic works.
6. **Open access materials on the web** - Materials that are available with open access are those that the user can use without permission for study, research, and reference use in academic works. The publication license of the materials must be verified before use. Some examples of links that contain open access materials are:
  - Flickr and Flickr Commons: [www.flickr.com](http://www.flickr.com) and <https://www.flickr.com/commons>
  - Wikimedia Commons: [https://commons.wikimedia.org/wiki/Main\\_Page](https://commons.wikimedia.org/wiki/Main_Page)
  - The Internet Archive: <https://www.archive.org/>
  - Digital Public Library of America: <https://dp.la/>

### **Plan to Educate the University Community**

CCU has developed the following plan to educate the university community about the distribution and unauthorized use of copyrighted materials.

1. Send the Copyright Policy to the university community (students, faculty, and administrative employees) through the institutional mail at the beginning of the academic term.
2. Offer talks on the Copyright Policy on an annual basis.
3. Publish the Policy on the institutional website.
4. Offer workshops to the faculty and students on the use of the Style Manual of the APA

### **Penalties for Violating the Copyright Policy**

Violation of copyright is the act of exercising, without permission or legal authority, one or more of the exclusive rights granted to the owner of the title in Section 106 of the copyright laws. These rights include the reproduction or distribution of copyrighted material. In the context of file sharing, downloading, or uploading substantial portions of copyrighted material without authority constitutes a violation.

The penalties for copyright infringement include civil and criminal penalties. Anyone found guilty of copyright infringement may be ordered to pay actual or statutory damages in an amount of not less than \$ 750 and not more than \$ 30,000 per violation. For willful violation, a court can award up to \$ 150,000 per violation. A court may, at its discretion, also include an attorney's fees and expenses.

Deliberate violations can also result in criminal charges, including imprisonment for up to 5 years or fines of

up to \$ 250,000 per offense.

#### Policy Violations /Disciplinary Actions

If a complaint is received that an employee or student has violated the Dispositions described, the complaint will be investigated through the Board to Ventilate Complaints (JVQ) of students or employees. If cause is found, the corresponding disciplinary procedures described in the Employee or Faculty Handbook (verbal, written warning, and dismissal) and in the Student Regulations (published in the Student Consumer Handbook in the case of students (verbal warning, written, expulsion), depending on the magnitude of the violation.

#### Copyright Related Links

1. Federal Copyright Law <https://www.copyright.gov/espanol/circ01-espanol.pdf>
2. Plagiarism: A void the Consequences <http://www.onlinecolleges.net/for-students/avoid-plagiarism>
3. Creative Commons Licenses <http://www.creativecommons.org/>
4. Legal Sources of Online Content <https://www.educause.edu/focus-areas-and-initiatives/policy-and-security/educause-policy/issues-and-positions/intellectual-property/legal-sources-online>
5. Copyright Guide of Online Courses, E-Reserves, and Course Management Systems <https://library.cn.edu/CopyrightTips.pdf>

Plagiarism is considered a violation of academic integrity. Any student or professor is prohibited from commenting on plagiarism, defined as the act of presenting someone else's ideas or work as a whole or in part as their own. This includes, but is not limited to, any text, figures, photographs, images, sounds, or videos.

In the case of using material belonging to another author as support material, it is required as part of the writing process to reference the external sources used. Other actions not allowed, also considered as a variant of plagiarism, lacking in academic integrity are:

- Change key words and phrases, but keeping the essence of the original work
- Integrate a significant portion of a text by another author without giving due credit
- Present as your own creation the identical or partial work of someone else
- Appropriating the work of another author by not citing the text
- Use works from other classes, already previously qualified and present them as new

Major offenses may have therefore the suspension of the student, the suspension of a professor or administrative officer for a defined time, or the permanent expulsion from the institution of the person who commits the offense according to the findings of the investigation carried out by the members of the Discipline Committee. It is required for the entire academic community to promote and ensure integrity and ethical, truthful, and responsible conduct in all work related to the work in the teaching and learning processes.

Professors will not participate in or tolerate acts of forgery, plagiarism, dishonesty, identity theft, or any other act that violates the fundamental ethical principles of the university community. Dishonesty, dishonesty, fraud, plagiarism, and any other inappropriate behavior in relation to academic work will constitute a referral to the Discipline Committee and sanctions to be awarded according to the severity of the incident.

Fraudulent actions in general, paper delivery, and obtaining grades or academic degrees through fraudulent acts, the usurpation or allowing usurpation of their identity, copying all or part of academic works are classified as incidents related to dishonesty or lack of academic integrity, and copying someone else's answers to test questions, as well as helping someone else to engage in the conduct. This and any other conduct that violates academic integrity will be referred to by the Disciplinary Committee for the corresponding action.

## **COMMUNICATION POLICY BETWEEN FACULTY AND STUDENTS IN ONLINE COURSES**

Columbia Central University (CCU) recognizes that interaction and clear communication observing all ethical standards between the faculty and students must be frequent, direct, and consistent to provide experiences that tend to maximize the learning process in each course. Unlike presential courses, in the online modality, communication can be asynchronous. This policy will be applicable to all professors and students during the academic term in which they teach or participate in courses offered by CCU online mode.

CCU recognizes that, unlike the synchrony in the interaction between professors and students of the courses in the face-to-face mode, in the non-face-to-face study modality the interactions often occur asynchronously between the facilitating resource and the learner. To guarantee that both professors and students have an official, effective, and consistent media with this type of study, CCU has established the Policy for Communication between Faculty and Students in the Online Study Mode.

Through this policy it is established that the university will provide official means of communication between students and professors to promote and ensure effective interactions between them. CCU encourages interactions to be open and frequent and to ensure their integrity, establishes that:

1. The university will provide an email account to all professors and students.
2. Said account will be the official means provided by CCU for exchanging written communications. All exchanges between the faculty and students must comply with the policies established for the use of email, for the acceptable use of technology, and with this policy.
3. The university will use Canvas LMS as a learning management platform for offering online courses and will consider this the only official means for the exchange of content, material, assignments, and grades between the professor and his/her students. The user account for both the faculty and students will be linked to their institutional email account.
4. Through Canvas LMS, both students and professors will have access to functions for exchanging messages, emails, announcements, content, homework, and grading.
5. The professor's response process to any type of communication by his/her students in the online mode must occur within a time frame that does not exceed 24 hours after the message was received. This does not imply that any request or request by a student can or has to be resolved at that time, but that the professor will respond and provide feedback to the student.
6. The university does not sponsor the use of social networks and applications such as WhatsApp and Facebook for the official exchange of messages or communications regarding the courses in the remote mode. CCU will not consider any official communication exchanged through these or other unofficial means.

## **SATISFACTORY ACADEMIC PROGRESS POLICY**

### **Introduction**

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

### **Applicability**

This policy applies to all students enrolled in CCU, regardless of whether they are full-time or part-time students or if they receive federal financial aid, or any other type of aid. The policy does not apply to students enrolled in

Continuing Education courses.

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

CCU defines Satisfactory Academic Progress as the required measurement of a student's academic progress towards completing his or her academic program. Satisfactory Academic Progress (SAP) is evaluated with two standards: qualitative (GPA) and quantitative (Credits Successfully Completed). Students must maintain the required cumulative GPA and successfully complete the cumulative required percentage of attempted credits (pace) to ensure they will graduate within the maximum timeframe for their program in order to meet the qualitative and quantitative components of SAP.

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 successfully complete the required percentage of attempted credits throughout the duration of his/her academic program. 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, the student becomes ineligible for FSA funds (Federal Student Aid) provided that the student is permitted to receive FSA funds during a single consecutive payment period of Financial Aid Warning status or, after a successful appeal, while on Financial Aid Probation status.

#### **Roles and Responsibilities**

Academic Progress Committee	Academic Director and/or Program Coordinator, Registrar, Counselor, and the Director of the Financial Aid Office.
Submission of Appeal Request	The Counselor or equivalent will submit the Satisfactory Academic Progress Appeal request that was prepared and submitted by the student to the Dean of Academic Affairs and/or Chief Academic Officer, who will convene the Appeal Committee for an appropriate evaluation.

### **SATISFACTORY ACADEMIC PROGRESS POLICY REQUIREMENTS**

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

Students need to achieve the minimum cumulative grade point average at each SAP evaluation point. (For more details, please refer to the Satisfactory Academic Progress Evaluation Charts).

A student enrolled in a program of more than two academic years must have a GPA equivalent to his/her 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**

A student must progress through the program at the minimum pace for the specified SAP evaluation points 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 time frame 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 Academic Progress Evaluation Charts).

The chart below provides information about how grades affect the Qualitative (GPA) and Quantitative (credits) components of SAP:

Grade Type	Grade	Included Cumulative GPA	Included Credits/ Attempted	Included Hours	Included Credits Earned (Successfully Completed)	Included Credits in Maximum Time Frame
Passing Grades	A, B, C, D	Yes	Yes	Yes	Yes	Yes
Additional Passing Grades (Pass/Fail courses)	P	No	Yes	Yes	Yes	Yes
Failing Grade	F	Yes	Yes	No	Yes	
No Pass Grade (Pass/Fail courses)	NP	No	Yes	No	Yes	
Incompletes	I	No	Yes	No	Yes	
Dropped Course (Withdrawals)	W, WT, WF	No	Yes	No	Yes	
Emergency Courses - COVID-19	Drop COVID-19 Grade	No	No	No	No	
Repeated courses	As earned for each attempt	Highest grade earned at the course	Yes, all attempts	Yes, all attempts of the course	Yes, all attempts of courses successfully completed	Yes, all attempts of the course
Transferred Credits/Hours from prior programs at CCU accepted towards current program	Refer to grades above	Yes	Yes	Yes	Yes	Yes
Credits transferred from other institutions that were accepted towards current program	T	No	Yes	Yes	Yes	Yes

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

#### **Maximum Timeframe Criteria**

Students are required to complete their program within a reasonable timeframe. Federal regulations define the maximum timeframe as 150% of the published length of the program of study. The maximum timeframe is based on credits attempted and is determined by multiplying the number of credits required to complete the program by 1.5. For example, a 64-credit program would have a maximum time frame 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 and therefore loses eligibility for federal financial aid for their program. All attempted credits, with the exception of drops due to COVID-19, count towards the maximum timeframe, including transfer credit hours accepted for the student's current program of study.

A student for whom it has become mathematically impossible to complete the program within 150% of the program's length in credits may be allowed to continue for an additional term, if approved by the Academic Progress Committee. This term will not be considered eligible for financial aid and students are not permitted to submit an SAP appeal. If allowed to continue for an additional term, the student enrolls under an Academic Plan.

#### **SAP Evaluation Procedure**

Students are expected to meet the cumulative required minimum completion rate and grade point average at the end of each SAP evaluation period (semester).

The Registrar Office will evaluate academic progress at the end of each academic term.

#### **SAP Reevaluation Procedure**

The Registrar Office will reevaluate the Satisfactory Academic Progress 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. CCU 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 Satisfactory Academic Progress standards, the Registrar Office will send written notification indicating the results of the evaluation, the satisfactory academic progress status under which student was placed, and any applicable process that should be followed to maintain or regain financial aid eligibility.

In addition, the Registrar's Office will prepare the list of students who do not comply with the SAP policy and will notify the Financial Aid, Collections, and Counseling offices in writing.

#### **Financial Aid Warning**

Financial Aid Warning is a status assigned to a student who fails to comply with the qualitative and/or quantitative component as established in the Satisfactory Academic Progress policy.

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 satisfactory academic progress

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 quantitative standards described above upon completing the Financial Aid Warning period, the student will be placed on Financial Aid Suspension status and will lose eligibility for FSA programs. If the student successfully appeals their Financial Aid Suspension status, the student will be placed on Financial Aid Probation Status.

### **Financial Aid Suspension**

Students placed on Financial Aid Suspension lose eligibility for financial aid. A student will be placed on Financial Aid Suspension 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 (discussed below), or
- It is mathematically impossible for the student to complete the program within the maximum timeframe allowed. As discussed above, students who cannot complete their program within the maximum timeframe are not permitted to submit an SAP appeal.

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

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

### **Appeal Process**

An appeal is a process where a student on Financial Aid Suspension status 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 (including the terms of their Academic Plan, if applicable) in the period evaluated.

If a student experienced extenuating circumstances that prevented him/her from complying with the SAP requirements, the student may appeal to regain eligibility for federal financial aid.

The Institution 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, including supporting documentation, within a period of five (5) business days from the date of receipt of the notification that they were placed on Financial Aid Suspension status. The students 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 SAP appeal form 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 and determine whether it is possible for the student to meet the standards of academic progress or an Academic Plan at the end of the next term.

The Appeals Committee will evaluate the Request for Appeal of Satisfactory Academic Progress and notify the Academic Director or designee of the decision. This Committee must establish a meeting schedule for each academic term, with a deadline for the student to document his/her case and present it to the Committee via the SAP Appeal form. The Registrar's Office will send the students' written notice of the Committee's decision no later than 5 calendar days from the date of the committee's decision.

If the appeal is approved, the student will be eligible for financial assistance during the probation term. At the next evaluation point, in order to maintain eligibility for financial aid, the student must be able to demonstrate that he or she meets the requirements of satisfactory academic progress or is adhering to the terms of his/her Academic Plan. The student has the opportunity to appeal again if he/she fails to comply with the requirements of SAP or the terms of his/her Academic Plan.

### **Financial Aid Probation**

This status applies to those students who have not been able to meet the SAP requirements and were placed on Financial Aid Suspension status, but subsequently complete the appeal process and their appeal is approved. (Please refer to the Appeal Process section 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 the student is unable to meet satisfactory academic progress standards by the end of the payment period under probation. The purpose of the Academic Plan is to ensure the student is monitored each subsequent payment period to ensure student's ability to graduate with the appropriate GPA and within the maximum time frame.

Students will be eligible for financial aid during the payment period under Financial Aid Probation status. Once the probation period ends, students must be able to show they meet the requirements of Satisfactory Academic Progress 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 satisfactory academic progress standards by a specific point of time.

If a student successfully appeals and is placed on Financial Aid Probation status with an Academic Plan, the student will retain eligibility for federal financial aid if he/she meets 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 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 (Credits) standards. A student who has lost federal financial aid eligibility due to maximum timeframe cannot reestablish eligibility.

### **COVID-19 Exception for SAP Quantitative Criteria**

Section 3509 of the CARES Act allowed institutions to exclude any attempted credits from the calculation of satisfactory academic progress (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 his family
- The need to become a caregiver or first responder
- Economic difficulties
- Increase in working hours
- Loss of childcare
- Inability to continue with classes through online education

This exception is available to students upon request to the Registrar Office for any terms that included the start and end dates of the COVID-19 national emergency (March 5, 2020, to May 11, 2023). 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 73 percent (79/108), which meets SAP standards. The 12 credits attempted are also excluded from the maximum timeframe and GPA.

### **TABLES TO EVALUATE THE STUDENT'S SATISFACTORY ACADEMIC PROGRESS BY LEVEL:**

#### **CERTIFICATE PROGRAMS**

**Program:** Computer Repairs Technician

**Program Summary:**

Program Credits Required	Maximum Timeframe	Minimum Cumulative GPA	Minimum Cumulative Pace (Credit hours completed / Credit hours attempted)
36	54	2.00	66.67%

**Program:** Veterinary Assistant

**Program Summary:**

Academic Credits in Program	Financial Aid Credits in Program	Maximum Timeframe in Financial Aid Credits
55	36	54

**Satisfactory Academic Progress Requirements:** Satisfactory Academic Progress will be evaluated at the end of each term. At each evaluation point students must achieve:

- A cumulative GPA of 2.00, and
- A minimum cumulative credit completion rate of 66.67%
  - For example, if 18 credits are attempted by the end of term, at least 12 must have been successfully completed ( $12/18=.6667\%$ )

Academic and financial aid credits are different for this program. Satisfactory Academic Progress evaluation is based on financial aid credits. The table below provides details about required courses and the corresponding academic and financial aid credits.

Course Description	Academic Credits	Financial Aid Credits
Introducción a la Medicina Veterinaria y Bioseguridad Animal	4	2
Destrezas de Comunicación Efectiva en Español	3	1.5
Conceptos Básicos de Ciencias	4	2
Conceptos Matemáticos	3	1.5
Principios Generales de Quirófano Veterinario	2	2
Anatomía y Fisiología de los Animales	5	3
Microbiología Veterinaria	3	1.5
Patología, Toxicología y Farmacología Veterinaria	4	2
Principios de Enfermería Veterinaria	4	2.5
Manejo, Cuidado y Enfermedades de Animales de Granja	4	3
Procedimientos Clínicos Veterinarios	3	3
Principios de Odontología Veterinaria	2	1
Nutrición Animal	2	1
Introducción a la Radiología y Sonografía Veterinaria	4	3
Principios de Psicología Social Comunitaria	2	1
Práctica Clínica Veterinaria	6	6

**Program:** Veterinary Assistant with Pet Grooming

**Program Summary:**

Academic Credits in Program	Financial Aid Credits in Program	Maximum Timeframe in Financial Aid Credits
71	48	72

**Satisfactory Academic Progress Requirements:** Satisfactory Academic Progress will be evaluated at the end of each term. At each evaluation point students must achieve:

- A cumulative GPA of 2.00, and
- A minimum cumulative credit completion rate of 66.67%
  - For example, if 18 credits are attempted by the end of term, at least 12 must have been successfully completed ( $12/18=.6667\%$ )

Academic and financial aid credits are different for this program. Satisfactory Academic Progress evaluation is based on financial aid credits. The table below provides details about required courses and the corresponding academic and financial aid credits.

Course Description	Academic Credits	Financial Aid Credits
Introducción a la Medicina Veterinaria y Bioseguridad Animal	4	2
Destrezas de Comunicación Efectiva en Español	3	1.5
Conceptos Básicos de Ciencias	4	2
Conceptos Matemáticos	3	1.5
Principios Generales de Quirófano Veterinario	2	2
Anatomía y Fisiología de los Animales	5	3
Microbiología Veterinaria	3	1.5
Patología, Toxicología y Farmacología Veterinaria	4	2
Principios de Enfermería Veterinaria	4	2.5
Manejo, Cuidado y Enfermedades de Animales de Granja	4	3
Procedimientos Clínicos Veterinarios	3	3
Principios de Odontología Veterinaria	2	1
Nutrición Animal	2	1
Introducción a la Radiología y Sonografía Veterinaria	4	3
Principios de Psicología Social Comunitaria	2	1
Introducción a Pet Grooming	2	1
Técnicas Pre-Grooming	3	2.5
Grooming Básico	3	2.5
Empresarial Básico y Mercadeo	2	1
Patrones y Estilos de Recorte	3	2.5
Técnicas Avanzadas de Grooming	3	2.5
Práctica Clínica Veterinaria	3	3
Práctica de Grooming	3	3

**Program:** Medical Secretary with Insurance Billing

**Program Summary:**

Academic Credits in Program	Financial Aid Credits in Program	Maximum Timeframe in Financial Aid Credits
56	36	54

**Satisfactory Academic Progress Requirements:** Satisfactory Academic Progress will be evaluated at the end of each term. At each evaluation point students must achieve:

- A cumulative GPA of 2.00, and
- A minimum cumulative credit completion rate of 66.67%
  - For example, if 18 credits are attempted by the end of term, at least 12 must have been successfully completed ( $12/18=.6667\%$ )

Academic and financial aid credits are different for this program. Satisfactory Academic Progress evaluation is based on financial aid credits. The table below provides details about required courses and the corresponding academic and financial aid credits.

Course Description	Academic Credits	Financial Aid Credits
Español Básico	4	2
Basic English	3	1.5
Matemática Comercial	3	1.5
Terminología Médica	8	4
Mecanografía Básica Computarizada	3	3
Crédito y Cobro en Facturación a Planes Médicos I	4	2
Administración de Documentos	4	2
Mecanografía Intermedia y Avanzada	3	3
Relaciones Humanas	2	1
Principios Básicos de Clasificación y Codificación ICD-9-CM y ICD-10CM/PCSyCPT	4	2
Principios de Computadoras	2	2
Español Comercial	2	1
Business English	2	1
Administración de Oficina	2	1
Principios de Récord Medico	2	1
Crédito y Cobro en Facturación a Planes Médico II	3	3
Práctica en Médico Secretarial y Facturación de Planes Médicos	5	5

**Program:** Laboratory Assistant with Electronic Processing

**Program Summary:**

Academic Credits in Program	Financial Aid Credits in Program	Maximum Timeframe in Financial Aid Credits
38	24	36

**Satisfactory Academic Progress Requirements:** Satisfactory Academic Progress will be evaluated at the end of each term. At each evaluation point students must achieve:

- A cumulative GPA of 2.00, and
- A minimum cumulative credit completion rate of 66.67%
  - For example, if 18 credits are attempted by the end of term, at least 12 must have been successfully completed ( $12/18=.6667\%$ )

Academic and financial aid credits are different for this program. Satisfactory Academic Progress evaluation is based on financial aid credits. The table below provides details about required courses and the corresponding academic and financial aid credits.

Course Description	Academic Credits	Financial Aid Credits
Introduction to the Clinical Laboratory - Laws Regulations and the Assistant Role in Equipment Handling	7	4
General Compendium of Sciences	5	3
Basic Skills in Effective Communication and Customer Service	4	2
Medical Terminology	2	1
Basic Concepts of Microbiology	3	2
General Data Entry Processes and Billing of Laboratory Services	3	2
Management of Laboratory Samples	5	3
Special Procedures	5	3
Clinical Practice	4	4

**Program:** Pre-School Teacher Assistant

**Program Summary:**

Academic Credits in Program	Financial Aid Credits in Program	Maximum Timeframe in Financial Aid Credits
63	36	54

**Satisfactory Academic Progress Requirements:** Satisfactory Academic Progress will be evaluated at the end of each term. At each evaluation point students must achieve:

- A cumulative GPA of 2.00, and
- A minimum cumulative credit completion rate of 66.67%
  - For example, if 18 credits are attempted by the end of term, at least 12 must have been successfully completed ( $12/18=.6667\%$ )

Academic and financial aid credits are different for this program. Satisfactory Academic Progress evaluation is based on financial aid credits. The table below provides details about required courses and the corresponding academic and financial aid credits.

Course Description	Academic Credits	Financial Aid Credits
Relaciones Humanas	3	1.5
Español Básico	4	2
Principios de Computadora	2	2
Desarrollo del Niño	6	3
Manejo de Disciplina en Niños	3	1.5
Intervención en Crisis	4	2
Administración y Supervisión de Personal	4	2
Conceptos básicos en Salud y Seguridad en Infantes y Niños	5	2.5
Niños con necesidades especiales	5	2.5
Diseño de Actividades	4	2.5
English Applied to Preschool Teaching	2	1
Matemática Comercial	3	1.5
Desarrollo de Programas de servicio y desarrollo de propuesta	4	2
Curriculum de infantes y preescolares	4	2
Integración de experiencias de arte, música y literatura en la niñez temprana	4	2
Práctica Supervisada	6	6

**Program:** Professional Pet Groomer

**Program Summary:**

Academic Credits in Program	Financial Aid Credits in Program	Maximum Timeframe in Financial Aid Credits
33	25	37.5

**Satisfactory Academic Progress Requirements:** Satisfactory Academic Progress will be evaluated at the end of each term. At each evaluation point students must achieve:

- A cumulative GPA of 2.00, and
- A minimum cumulative credit completion rate of 66.67%
  - For example, if 18 credits are attempted by the end of term, at least 12 must have been successfully completed ( $12/18=.6667\%$ )

Academic and financial aid credits are different for this program. Satisfactory Academic Progress evaluation is based on financial aid credits. The table below provides details about required courses and the corresponding academic and financial aid credits.

Course Description	Academic Credits	Financial Aid Credits
Introducción a Pet Grooming	2	1
Anatomía y Zootecnia	3	1.5
Salud, Bienestar y Manejo de Emergencias	3	1.5
Técnicas Pre-Grooming	3	2.5
Principios de Conducta	3	2.5
Grooming Básico	3	2.5
Empresarial Básico y Mercadeo	2	1
Patrones y Estilos de Recorte	3	2.5
Grooming Creativo y Funciones Asiáticas	3	2.5
Técnicas Avanzadas de Grooming	3	2.5
Práctica de Grooming	5	5

#### CERTIFICATE PROGRAMS, ASSOCIATE, BACHELOR, AND MASTER DEGREES

Program	Program Required	Credits	Maximum Timeframe	Minimum Cumulative GPA	Minimum Cumulative Pace (Credit hours completed / Credit hours attempted)
Technical Certificate in Veterinary Assistant	38	57	2.00	66.67%	
Technical Certificate in Veterinary Assistant With Pet Grooming	52	78	2.00	66.67%	
Technical Certificate Professional Pet Groomer	37	56	2.00	66.67%	
Associate Degree in Audio	60	90	2.25	66.67%	
Associate Degree in Business Administration	72	108	2.25	66.67%	
Associate Degree in Cardiac and Vascular Technology	91	136.5	2.25	66.67%	
Associate Degree in Cyber Security	71	106.5	2.25	66.67%	
Associate Degree in Graphic Design	60	90	2.25	66.67%	
Associate Degree in Medical Sonography	84	126	2.25	66.67%	

Program	Program Required	Credits	Maximum Timeframe	Minimum Cumulative GPA	Minimum Cumulative Pace (Credit hours completed / Credit hours attempted)
Associate Degree in Nursing Sciences	72	108	2.25	66.67%	
Associate Degree in Optical Sciences	79	118.5	2.25	66.67%	
Associate Degree in Pharmacy Technician	83	124.5	2.25	66.67%	
Associate Degree in Radiological Technology	83	124.5	2.25	66.67%	
Associate Degree in Therapeutic Massage	63	94.5	2.25	66.67%	
Bachelor's Degree in Information Technology, Networking and Security	120	180	2.25	66.67%	
Bachelor's Degree in Nursing Sciences	125	187.5	2.25	66.67%	
Bachelor Degree of Science in Nursing RN to BSN	52	78	2.25	66.67%	
Bachelor's Diagnostic Imaging CT and MRI	135	202.5	2.25	66.67%	
Bachelor's Degree in Business Administration	120	180	2.25	66.67%	
Master Degree in Business Administration Specialization in Health Organizations Management	39	58.5	3.00	66.67%	
Master Degree in Business Administration Specialization in Human Resources	39	58.5	3.00	66.67%	

Program	Program Required	Credits	Maximum Timeframe	Minimum Cumulative GPA	Minimum Cumulative Pace (Credit hours completed / Credit hours attempted)
Master Degree in Business Administration Specialization in Management	39		58.5	3.00	66.67%
Master Degree of Sciences in Nursing with Specialization in Adults & The Elderly	41		61.5	3.00	66.67%

## GRADING SYSTEM POLICY

### Introduction

To ensure that grades are awarded fairly and consistently, all programs have evaluation criteria that professors must apply to their rubrics. These evaluation criteria (rubric) vary depending on the program and the academic activity to be evaluated. Students may be evaluated through exams, final exams, hours of external work, projects, participation in classes, and reports, among others. If there are justified causes for a student to be absent from an exam, he/she will coordinate with the professor to make it up.

### Applicability

Our Grading System policy applies to faculty, service office personnel, and all our enrolled and active students in the certificate, undergraduate, and graduate level academic programs. The student receives detailed feedback on their performance in the assessment tests carried out by the faculty for each of their enrolled courses and for the grades of these assessments, the university uses the equivalent system to the GPA method ("Grade Point Average"). According to the grading system, the marks are expressed with the letters A, B, C, D, or F.

### Dispositions

All academic activity that is related to the student while studying at the university is constituted in the credit transcript and grade report. In these official records, the students' different courses will appear with the grades obtained. In addition, it will include the academic index of the term.

To determine the index or general average of the student, the equivalent in honor points of each classification is multiplied by the number of credits of each course and its result is divided by the total of credits considered. For purposes of this and other averages to be computed by the university, the grades for courses approved in other institutions and accepted in transfer and any course that is accepted by any alternative and does not have a grade will not be taken into consideration.

Each grade is accompanied by a number, which is its equivalent in honor points. Honor points allow the computation of the arithmetic average of each student. The grades that are awarded at the university and their respective points of honor are the following:

Grade	Equivalency	Honor Points	Intervals	Percentages
A	Excellent	4	4.00 - 3.50	100 – 90
B	Good	3	3.49 - 2.50	89 – 80
C	Satisfactory	2	2.49 – 1.60	79 – 70
D	Deficient	1	1.59 - 0.80	69 – 60
F	Failed	0	0.79 - 0.00	59 – 0

Any student who understands that his/her grade(s) warrants a review will have the right to request a grade review. Any claim to review the grade(s) must be made within the term following the grade's receipt. Claims

after this time will not be received. Additionally, there are letters or codes that the university uses in the report cards, which are detailed below:

Symbol	Equivalency
<b>W</b>	Withdrawal
<b>WF</b>	Administrative Withdrawal
<b>WT</b>	Total Withdrawal
<b>P</b>	Passed
<b>NP</b>	Not Passed
<b>R</b>	Repetition
<b>T</b>	Transfer
<b>L</b>	Laboratory
<b>I</b>	Incomplete
<b>IP</b>	In progress

The symbols presented in the table above are used in certain circumstances but are not included in the determination of the student's cumulative academic average but are considered for the percentage of attempted credits versus approved credits. In addition, it can affect the students' Satisfactory Academic Progress. Each of the symbols with their respective equivalents are detailed below:

**W**-It means withdrawal or voluntary withdrawal, in writing, from a course, on or before the deadline for withdrawal. Also considered withdrawals (W) are those students who are processed as withdrawal by the Institution through the Registrar's Office for the following reasons:

- In the case of consecutive absences for a period of 14 calendar days.
- Unsatisfactory academic progress
- Improper conduct
- Health problems (after completing the Leave of Absence-LOA)
- Changes in the class schedule without the consent of the Registrar's Office.

**WF**- An administrative withdrawal in all courses is processed because the student did not have active participation in their courses and/or stopped attending classes with or without reasonable causes.

**WT**- When a student decides to officially withdraw from all the courses in which they enrolled.

**P**- This symbol indicates that the student successfully passed a course or was validated (if it was taken at our Institution). It carries academic credits but does not affect the computation of the general average. It is considered for the computation of attempted credits versus approved credits, for the Satisfactory Academic Progress Policy.

**NP**- It means that the student did not pass the course.

**R**- It means that the student repeated the course. CCU will allow its students to repeat the courses as many times as they wish, but for average purposes, the best grade obtained will be considered (for general average purposes, previous attempts are not considered). All repeated courses will be considered as attempted credits in the computation to determine satisfactory academic progress. In those cases where there are N/A (never participated) within the attempts of the same class, they will not be taken into consideration, since no payment of federal funds is made for them.

Otherwise, if the student voluntarily wishes to repeat a class because is not satisfied with the grade received, he/she may repeat it only once if he/she is a recipient of federal funds. In addition, there are courses that require a minimum grade of B to be considered approved. The student must refer to the breakdown of the requirements of each academic program, in compliance with the Minimum Grading Policy.

**T-** Courses that are validated from another institution. It carries academic credits but does not affect the computation of the general average. They are considered for the computation of attempted credits versus approved credits, for the Satisfactory Academic Progress Policy.

**L-** Laboratory courses

**I-** This symbol indicates that the student has not been able to fulfill the course requirements in the allotted time of the semester in which he/she is enrolled. This symbol is accompanied by the grade now in the course, until the student proceeds to remove the incomplete, in the period established in the Academic Calendar.

**IP-** In Progress. This symbol indicates that the student did not complete their internship hours within the enrolled academic semester. A TW is considered to indicate a special semester in which the student completes the practice hours.

## **GRADING REVIEW POLICY (GRADES)**

### **Introduction**

Any grade (grade) awarded to the student by the faculty represents the student's level of academic achievement in their courses. Scores are determined by using assessment instruments, such as metrics and rubrics, among other academic assessment tools designed to evaluate student learning.

The student has the right to appeal against the result of any grade obtained and request its review. This request could be related to the content of the evaluation instrument used, the application of rubric, or even an involuntary arithmetic error, among other possibilities. Therefore, if the student is not satisfied with the grade acquired, they must file the request for the review of grades at the Registrar's Office.

### **Applicability**

The policy applies to every student who understands that it warrants a review of the grade received and will have the right to request a grade review. Any request to review the grade must be made within the term after the student received such grade(s). Claims after this period will not be received.

Process for filing the request for review at the Registrar's Office:

1. To start the process, the student must complete the Request for Grade Review form at the Registrar's Office or through the online services on the university's website [www.columbiacentral.edu](http://www.columbiacentral.edu). The request result must be communicated to the student in 5 working days or before; from the date the application was filed.
2. If the student does not agree with the result of the review or wishes to meet with the professor, he/she must visit the Registrar's Office and complete the Request for Grade Appeal Review form within a term of no more than 5 working days.
3. Once the form is completed, it will be sent to the Coordinator or Academic Director to coordinate a meeting with the professor. The meeting must be held within a period of 5 business days or before, from the date the request was filed.

### **Professor's Responsibilities**

1. All professors must keep evidence of the evaluation methods used to calculate the student's grade. This evidence must be kept for a period not less than the term following the one in which the course was offered.
2. All professors must answer any Request for Grade Review on or before 3 business days from the date they received it.
3. All professors must be available for a meeting with the student who requests it. The Coordinator, Director, or Academic Dean must establish the date, time, and place with the professor, within 5 working days from the date of filing the request.

## REQUEST AND REMOVAL OF AN INCOMPLETE POLICY

### Introduction

Columbia Central University (CCU), in its best intention to contribute to the academic achievement of its students, developed the Incomplete Request and Removal Policy. The purpose of this policy is to establish the conditions under which the university will guarantee the student the opportunity to satisfy the requirements established for their courses when they cannot fulfill them in the assigned time of the semester in which they are enrolled.

### Applicability

This policy promotes the best interests of the university to support the student in their academic process and guarantees that the student can be provided an additional opportunity to satisfy the criteria and activities by which they will be evaluated in the course.

### Policy Layout

The end-of-course grade called Incomplete (I) may be used when the student fails to meet the final requirement of the course, be it a test, written work, a project, or others. Note that the incomplete is only given when the requirement that has not been met is the final course work and the student has satisfactorily met the other academic requirements of the course.

The student must request a grade of Incomplete 2 weeks before the end of the term and must be in Good Standing on the course. Understand "Good Standing", as being successfully passing the course at the time of requesting the Incomplete grade.

When reporting the final grade, the professor must submit the incomplete grade accompanied by the grade that the student would obtain assuming that the grade in the final work had been zero. This will allow the Registrar to grant the student the corresponding grade in case the incomplete is not removed at the close of late enrollment, the date established in the current Academic Calendar, of the following semester.

In case of practices, the professor in charge of the practice will be responsible for identifying students who have not completed the requirements and assigning them an incomplete. When reporting the final grade, the professor must submit the incomplete grade accompanied by an "F" grade until the student meets all the course requirements, including all the required practice hours, as established in their class program. For the practice courses, the deadline to remove the incomplete will be according to the practice hours that remain to be completed. In case the incomplete F is not removed within the established term, the Registry will proceed to assign an F grade corresponding to the practice course.

If the Incomplete has not been removed within the established term, any course enrolled for the next term that has as a prerequisite the course with a grade of incomplete not removed, will be automatically eliminated once the late registration deadline is met.

All removal of incomplete carries a charge, according to the current Cost Table. The student must manage with the professor the removal of the incomplete. In case the professor is not available, the student should go to the Director or Academic Coordinator of their program to process the removal.

## **POLICY ON STUDENTS ACTIVATED BY THE UNITED STATES ARMED FORCES AND THE PUERTO RICO NATIONAL GUARD**

### **Introduction**

Columbia Central University (CCU) recognizes the commitment of all those students who are part of the Armed Forces of the United States and the National Guard of Puerto Rico. Taking this as a basis and in compliance with Law 109 of 2003, the following policy was developed.

### **To whom this policy applies**

This policy applies to all those students who are enrolled in a program and who show the university that it has indeed been activated by the United States Armed Reserves in Puerto Rico or the National Guard of Puerto Rico.

### **Policy Layout**

All students who are activated must notify the Registrar's Office, at least 15 days before the activation date, presenting the original evidence of the activation order. Each student is responsible for notifying the Registrar's Office at the beginning of each term that they are a member of any of the agencies mentioned here. To better serve the student, the Registrar's Office will do the following:

**a. Cancellation of registration**

Once the activation order has been received, the enrollment will be canceled for the term in which it is enrolled.

**b. Academic progress**

The student's academic progress will not be affected since the cancellation of enrollment cancels any credit attempt. Likewise, the credit transcript will not be affected since that term will not be reflected in it.

**c. Tuition costs**

For all students who are activated, once their enrollment is canceled, any charge made to their account will be void.

**d. Reasonable accommodation in case of activations**

For all students who are activated, the university will ensure a space in the courses in which they were enrolled or their equivalent for a period of no more than 2 terms after their inactivation. If changes and/or curricular revisions occur, after this date, the student will be evaluated in the new curriculum.

**e. Candidates for graduation**

If the student is a candidate for graduation, they are also guaranteed the courses needed to complete their academic objective.

## **COSTS OF TUITION**

For details of the tuition costs by program, courses, laboratories, and others, please see the Current Cost Table of the university. Any change in tuition and fees will be notified to students at least 3 months in advance of its effectiveness. Upon approval, and at least three months before, the new charges and fees will be posted on the university's bulletin boards and electronic screens. The cost table is disclosed within CCU webpage under Consumer Information at: <https://columbiacentral.edu/asistencia-economica/estudiante-consumidor/>. Changes in tuition and fees are prospectively effective.

## COLLECTION POLICY

To whom this Policy applies

The following Collection Policy is established for students studying at Columbia Central University (CCU):

### Payment Deferrals

Payment of tuition costs will be made in advance. However, in cases where the student cannot meet this requirement, the university allows payment through a payment plan at the Collection Office. There will be no surcharges or penalties for establishing deferred payment plans.

Students who are not up to date with their financial commitments to college, as set forth above, risk missing the opportunity to:

1. make their class schedule for the next academic term
2. the processing or processing of any request for official or other documents
3. continue to participate in classes
4. The student will be awarded the academic degree; however, no official credit transcripts or diploma will be issued. This also applies to those who did not complete an academic degree.

Given that there are different situations among students who must contribute all or part of the tuition cost from their own funds, each of these categories will have a particular treatment within the limits of the established policy. More specifically, the following categories of cases will be treated as follows:

### Private students

Private students are those who do not have the benefit of benefiting from Title IV federal funds programs, such as: Federal Pell Grant, FSEOG, and Direct Loans. The University considers them private students.

1. The student must pay the entire tuition fees at the time of registration.
2. If the student does not have the full tuition payment, they must go through the Collection Office or access the online services on the website [www.columbiacentral.edu](http://www.columbiacentral.edu), to establish payment agreements. These agreements will proceed as follows:
  - a. The student must pay 25% of the tuition costs before the start of classes.
  - b. The difference (75%) will be divided into equal payments for a period equal to or less than the number of months of the semester.

### Semi-Private Students

Semi-private students are those who have the benefits of federal Title IV funds, but who do not cover their entire tuition cost. Those students who intend to make use of their scholarships and other financial aid must have completed the corresponding procedures before starting classes.

Once their aid has been awarded, the student is responsible for any difference between the cost of the semester and the possible financial aid for which he/she is eligible and must pay them at the Collection Office.

To do this, they will receive a payment plan indicating the amount and the payment dates (the amount of the payments is estimated and may change once the financial aid to which the student finally qualified is awarded).

Once the aid has been granted and accepted by the student, they will be credited to his/her account. If the student does not have to make any disbursement to the university, any excess payment will be reimbursed after the financial aid has been credited. If during this process the student is not eligible for federal scholarships or if he is only eligible for a part of them, the Collection Policy will be applied as a private or semi-private student, as applicable.

### Outstanding Balances and Non-Compliance with Payment Plans

1. If a student has a balance pending payment at the time of finishing or interrupting their studies, either for processing a withdrawal or cancellation of their enrollment, they will be sent a billing notice. If they do not respond to it, the student's debt will be referred to the Collection Agency hired by the Institution. There will be a charge of \$ 20.00, added to the debt already contracted.
2. If a student does not meet their payment plan, they may be referred to the collection agency and they will be charged \$20.00 to cover this expense.

### Work Experience Evaluations

The student must pay the full charge for evaluations for work experience requested before being evaluated.

### Challenge Exams

The student must pay the full cost when requesting the Challenge exam(s).

### Payments by Companies, Veterans, Government Agencies or Programs and Vocational Rehabilitation

The student who covers the cost of studies through any of the above institutions must notify it before registering and provide the necessary documentation in which the company or agency commits to the university to make the payment directly. For this, there must be a certification or payment commitment from the company or agency that will assume the study costs. In the case of students participating in the educational aid program under Chapter 31 or 33 of Veterans, at the time of registration, they must provide one of the following documents: Certificate of Eligibility or Declaration of Benefits or VAF form 28-1905.

Once this evidence is submitted, the university will not impose any penalty on students covered by these programs, even when payment has not been received from the agency or it is delayed, which include imposing late fees, denying access to their courses, receiving services, processing any document, and use of facilities, among others. This exception is extended for up to 90 days after tuition costs are certified or until payment is received from the agency, whichever occurs first.

### Payment Methods

CCU accepts payments in cash, check, or money order payable to Columbia Central University, as well as credit cards such as Visa, Master Card, ATH, and TelePago from Banco Popular de Puerto Rico. The Institution will charge \$20.00 for each check that is received and returned for insufficient funds. Payments can be made in person at the Collection Office or by mail, except for credit cards whose transaction must be made in person or by accessing the online services on the website [www.columbiacentral.edu](http://www.columbiacentral.edu).

### Responsibilities and Warning

The student is responsible for staying informed about CCU's payment rules by reading this policy and any other pertinent information. The university reserves the right to change or modify its payment rules at any time. The university will contact the students at the permanent address, as it appears in the Registrar's Office. It is the student's responsibility to provide the university with the correct address and phone number. Any change must be notified.

Columbia Central University will review tuition fees and annual fees. Changes in tuition costs will be effective as of July 1 of each academic year and will be published on the website and in the Treasury Office.

## **POLICY AND PROCEDURE TO MANAGE COMPLAINTS**

### **Policy Statement**

The complaint must be based on any action or inaction on behalf of the university according to the interpretation of one or more of the dispositions contained in the Institutional Catalog, Student-Consumer Manual, Employee Manual, and the Institutional Title IX Policy. Students and visitors must present their complaint to the Campus Rector's Office and the employee to their immediate supervisor or to the Human Resources Director.

If the complaint is related to gender discrimination, sexual harassment, stalking, or sexual assault, it will be immediately referred to the Title IX Coordinator or Human Resources Director. The complainant will be oriented to his/her right to inform the police. The university official who receives the complaint must initiate the corresponding procedure immediately after the filing is done. The Title IX Coordinator or Human Resources Director will proceed to attend to the complaint within the next 3 working days and will inform the parties of the procedure to follow.

### **To whom it applies**

Columbia Central University's institutional policy is to provide all its employees, students, and visitors with a study and work environment free from health and safety risks, promoting the respect, protection, and well-being of the entire academic community. Any student, employee, or visitor who understands that there is a situation in which the institutional policies, regulations, and procedures have been violated, including conduct or action of a sexual nature such as sexual harassment, hostile environment and/or sexual assault or discrimination by reason of race, sex, gender, sexual orientation, color, religion, age, disability, veteran status, marital status, or national origin, that interferes with the achievement of their academic or professional goals, may file a written complaint.

### **Terms and Conditions**

1. Complainant - Person filing the complaint
2. Respondent - Person against whom a complaint is filed

### **Procedure for Filing Complaints**

#### **Informal Process**

The parties involved should have the opportunity to resolve the problem informally. Prior to instituting the formal complaint process, the complainant will have the option of meeting with the person with whom he/she understands he/she has discriminated against, misapplied, or misinterpreted or violated institutional policies or procedures.

If the complainant does not feel able to participate in said meeting, he/she will have the option of meeting with the employee's supervisor, Human Resources Director, Chancellor, and/or Title IX Coordinator to discuss the incident. This meeting must be held within the next 15 working days after the situation that caused the complaint. The staff responsible for receiving the complaint or a representative from their office will be available to guide the parties, both in informal and formal processes. The informal grievance process will end as the parties reach an agreement. If not, the complainant will be informed about his/her right to file a formal complaint.

## Formal Process

If the complainant is not satisfied with the results of the informal process, he/she may initiate the formal process no later than 10 working days after the situation that caused the complaint occurred. The procedure to follow in these cases will be:

- If the complainant is a student or visitor, the case should be referred to the Chancellor Office who will deliver the complaint form and guide you through the process.
- If the complainant is an employee, he/she should go to his/her immediate supervisor. The official should refer the case immediately to the Human Resources Office, who will deliver the complaint form and guide him/her through the process.
- If the accused is the supervisor, the complainant may go directly to the Human Resources office. Both the Campus Chancellor and the Human Resources Director may appoint a Grievance Committee.
  - Complaints of an academic nature - The Complaints Committee will be composed of the Academic Dean, a member of the faculty (the faculty member must be from a different academic program than the students involved), 2 administrative members and a student (the student must be from a different program than the case involved). The Chancellor will appoint this committee.
  - Complaints of an administrative nature and/or other types of discrimination that are not based on gender - The Complaints Committee will be made up of the Campus Chancellor, the Dean, the VP Academic Affairs, a member of the faculty (opposite to the faculty to which it belongs), and an administrative member.
  - Complaints of discrimination by gender, sexual harassment, sexual assault, or stalking
    - The Complaints Committee will be composed of the Rector, the Director of Human Resources, the VP Academic Affairs, a member of the faculty, in case the complaint is related with students (the faculty member must be from a different program than the students involved), an administrative member. If there is a conflict of interest between the members of the Committee, they will be replaced. The Human Resources Director will appoint this Committee.

## Notes:

- The Counseling staff should not be part of the committee due to conflict of interests.
- The participation of a student representative will be limited to cases of Academic nature, that they are made to cases of students only.
- An investigation will be initiated, guaranteeing the strictest confidentiality. The officials responsible for intervening will evaluate the information provided by the complainant and the accused. The complainant's concerns will be addressed to ensure a suitable environment free of intimidating, hostile or offensive conduct.
- The investigation will be conducted in an impartial manner. Equal opportunity will be offered to parties to present witnesses and evidence. Equal time will be offered, and equal access to the information to be considered in the complaint process. For one of the parties to notify them that they will have legal representation, the same opportunity will be offered to the other party.
- During the investigation, all parties involved will be provided with the necessary adjustments relevant to the extent practicable. These provisional arrangements should not be understood as a disciplinary sanction for either party, until the investigation process is complete. As part of the investigation, signed statements may be taken from witnesses identified by the parties.
- At the end of the investigation of the complaint, the complainant will be notified in writing as to the defendant of the decision of the Committee.
- Complaints of an academic nature. It is up to the VP of Academics Academic to notify the Committee's decision.
- Complaints of an administrative nature and other types of discrimination other than gender. It is up to the Human Resources Director to notify the Committee of the decision.
- Complaints of discrimination based on gender, sexual harassment, sexual assault, or stalking. It is the responsibility of the Human Resources Director to notify the Committee's decision.

#### Applicable Sanctions

The sanctions that will be awarded after the investigation of a complaint for the violation of institutional policies, rules, and procedures and/or situations of gender discrimination, stalking, sexual harassment, sexual assault, will be carried out according to with the Dispositions of the Institutional Catalog, Consumer Student Manual and Employee Manual.

#### Right of Appeal:

If they are not satisfied with the decision of the Complaints Committee, both the complainant and the defendant can appeal in writing within the next five working days:

1. All appeals will be directed to the President of the University

The President will appoint a review committee. The review committee will be integrated by 3 members of the administration and 2 faculty members who have not participated as members of the Grievance Committee. This committee will evaluate the complaint and present a final recommendation to the President within 10 business days of the request for review. The President has 5 working days to validate the decision of the review committee and notify the complainant and the respondent of the final decision in writing. The final decision of the President will be final.

Explanatory Note: In circumstances beyond the control of the University, the time to respond to the complaint may be extended.

#### Withdrawal of Complaints

The complainant may withdraw the complaint at any time by requesting it in writing.

#### No Retaliation

Columbia Central University is committed not to retaliate against any student, faculty, employee, or visitor for their involvement in a complaint.

#### Complaint Report

Reports and documents related to complaints will be kept in the Human Resource Director's office or the Chancellor for 6 years.

#### Unresolved Complaints

If they are not satisfied with the process of resolving complaints, both the complainant and the accused may contact:

- **Accrediting Agency:**  
Middle States Commission on Higher Education  
3624 Market Street Second Floor West Philadelphia, PA 19104  
Tel.:(267)-284-5000 [www.msche.org](http://www.msche.org)
- **Licensing Agency:**  
Board of Postsecondary Institutions  
PO BOX 19900  
San Juan PR 00910-1900  
Tel.:(787)-722-2121 [www.ce.pr.gov](http://www.ce.pr.gov)
- **FERPA Compliance:**  
Family Policy Compliance Office  
U.S. Department of Education  
400 Maryland Avenue, SW  
Washington, D.C. 20202-5901
- **Discrimination Issues:**  
Civil Rights Office  
[www.cdc.pr.gov](http://www.cdc.pr.gov)

## **NOTICES, LIMITS, QUALIFICATIONS, AND REPRESENTATIONS**

## **MISREPRESENTATION AND AGGRESSIVE AND DECEPTIVE RECRUITMENT TACTICS OR CONDUCT**

### **Introduction**

Columbia Central University (CCU) is committed to representing the institution accurately and truthfully in its communications to current and prospective students, alumni, current and potential graduate employers, the campus community, other institutions, government and regulatory agencies, and the public at large. CCU is also committed to not engaging in aggressive and deceptive recruitment tactics or conduct. In accordance with the U.S. Department of Education's (USDE) Misrepresentation and Aggressive and Deceptive Recruitment Tactics or Conduct regulations, personnel are prohibited from misrepresenting the institution in regards to the nature of its educational programs and the institution, the nature of financial charges or financial assistance, and the employability of graduates, and personnel are also prohibited from omissions of fact as well as aggressive and deceptive recruitment tactics or conduct.

CCU has zero tolerance for violations of the USDE's Misrepresentation and Aggressive and Deceptive Recruitment Tactics or Conduct regulations. Violations may result in disciplinary action, up to and including termination.

### **Applicability**

This policy applies to all personnel within Columbia Central University (CCU).

### **Policy**

It is Columbia Central University policy that all personnel must comply with the U.S. Department of Education's (USDE) Misrepresentation and Aggressive and Deceptive Recruitment Tactics or Conduct regulations, provided below (Source: 34 CFR 668 Subpart F – Misrepresentation and Subpart R – Aggressive and Deceptive Recruitment Tactics or Conduct).

#### **Misrepresentation - 34 CFR 668.71 Definitions**

Any false, erroneous or misleading statement an eligible institution, one of its representatives, or any ineligible institution, organization, or person with whom the eligible institution has an agreement to provide educational programs, or to provide marketing, advertising, recruiting or admissions services makes directly or indirectly to a student, prospective student or any member of the public, or to an accrediting agency, to a State agency, or to the Secretary. A misleading statement includes any statement that has the likelihood or tendency to mislead under the circumstances. A misleading statement may be included in the institution's marketing materials, website, or any other communication to students or prospective students. A statement is any communication made in writing, visually, orally, or through other means. Misrepresentation includes any statement that omits information in such a way as to make the statement false, erroneous, or misleading. Misrepresentation includes the dissemination of a student endorsement or testimonial that a student gives either under duress or because the institution required such an endorsement or testimonial to participate in a program. Misrepresentation also includes the omission of facts as defined under § 668.75.

*Prospective student.* Any individual who has contacted an eligible institution for the purpose of requesting information about enrolling at the institution or who has been contacted directly by the institution or indirectly through advertising about enrolling at the institution.

*Substantial misrepresentation.* Any misrepresentation, including omission of facts as defined under § 668.75, on which the person to whom it was made could reasonably be expected to rely, or has reasonably relied, to that person's detriment.

**34 CFR 668.72 Nature of educational program or institution.**

Misrepresentation concerning the nature of an eligible institution's educational program includes, but is not limited to, false, erroneous or misleading statements concerning—

- (a) The particular type(s), specific source(s), nature and extent of its institutional, programmatic, or specialized accreditation;
- (b)(1) The general or specific transferability of course credits earned at the institution to other institution(s); or
  - (2) Acceptance of credits earned through prior work or at another institution toward the educational program at the institution.
- (c) Whether successful completion of a course of instruction qualifies a student—
  - (1) For acceptance into a labor union or similar organization; or
    - (2) To receive, to apply to take, or to take the examination required to receive a local, State, or Federal license, or a nongovernmental certification required as a precondition for employment, or to perform certain functions in the States in which the educational program is offered, or to meet additional conditions that the institution knows or reasonably should know are generally needed to secure employment in a recognized occupation for which the program is represented to prepare students;
- (d) The requirements for successfully completing the course of study or program and the circumstances that would constitute grounds for terminating the student's enrollment;
- (e) Whether its courses are recommended or have been the subject of unsolicited testimonials or endorsements by:
  - (1) Vocational counselors, high schools, colleges, educational organizations, employment agencies, members of a particular industry, students, former students, or others; or
    - (2) Governmental officials for governmental employment;
- (f) Its size, location, facilities, equipment, or institutionally-provided equipment, software technology, books, or supplies;
- (g) The availability, frequency, and appropriateness of its courses and programs in relation to the employment objectives that it states its programs are designed to meet;
- (h) The number, availability, and qualifications, including the training and experience, of its faculty, instructors, and other personnel;
- (i) The nature and availability of any tutorial or specialized instruction, guidance and counseling, or other supplementary assistance it will provide to its students before, during or after the completion of a course;
- (j) The nature or extent of any prerequisites established for enrollment in a course;
- (k) The subject matter, content of the course of study, or any other fact related to the degree, diploma, certificate of completion, or any similar document that the student is to be, or is, awarded upon completion of the course of study;
- (l) Whether the academic, professional, or occupational degree that the institution will confer upon completion of the course of study has been authorized by the appropriate State educational agency;
- (m) Institutional or program admissions selectivity if the institution or program actually employs an open enrollment policy;
- (n) The classification of the institution (nonprofit, public or proprietary) for purposes of its participation in the title IV, HEA programs, if that is different from the classification determined by the Secretary;
- (o) Specialized, programmatic, or institutional certifications, accreditation, or approvals that were not actually obtained, or that the institution fails to remove from marketing materials, websites, or other communications to students within a reasonable period of time after such certifications or approvals are revoked or withdrawn;

- (p) Assistance that will be provided in securing required externships or the existence of contracts with specific externship sites;
- (q) Assistance that will be provided to obtain a high school diploma or General Educational Development Certificate (GED);
- (r) The pace of completing the program or the time it would take to complete the program contrary to the stated length of the educational program; or
- (s) Any matters required to be disclosed to prospective students under §§ 668.42, 668.43, and 668.45.

***34 CFR 668.73 Nature of financial charges or financial assistance.***

Misrepresentation concerning the nature of an eligible institution's financial charges, or the financial assistance provided includes, but is not limited to, false, erroneous, or misleading statements concerning—

- (a) Offers of scholarships to pay all or part of a course charge;
- (b) Whether a particular charge is the customary charge at the institution for a course;
- (c) The cost of the program and the institution's refund policy if the student does not complete the program;
- (d) The availability, amount, or nature of any financial assistance available to students from the institution or any other entity, including any government agency, to pay the costs of attendance at the institution, including part-time employment, housing, and transportation assistance;
- (e) A student's responsibility to repay any loans provided, regardless of whether the student is successful in completing the program and obtaining employment;
- (f) The student's right to reject any particular type of financial aid or other assistance, or whether the student must apply for a particular type of financial aid, such as financing offered by the institution; or
- (g) The amount, method, or timing of payment of tuition and fees that the student would be charged for the program.

***34 CFR 668.74 Employability of graduates***

Misrepresentation regarding the employability of an eligible institution's graduates includes, but is not limited to, false, erroneous, or misleading statements concerning—

- (a) The institution's relationship with any organization, employment agency, or other agency providing authorized training leading directly to employment;
- (b) The institution's intentions to maintain a placement service for graduates or to otherwise assist its graduates to obtain employment, including any requirements to receive such assistance;
- (c) The institution's knowledge about the current or likely future conditions, compensation, or employment opportunities in the industry or occupation for which the students are being prepared;
- (d) Whether employment is being offered by the institution exclusively for graduates of the institution, or that a talent hunt or contest is being conducted, including, but not limited to, through the use of phrases such as "Men/women wanted to train for . . .," "Help Wanted," "Employment," or "Business Opportunities";
- (e) Government job market statistics in relation to the potential placement of its graduates;
- (f) Actual licensure passage rates, if they are materially lower than those included in the institution's marketing materials, website, or other communications made to the student or prospective student; or
- (g)(1) Actual employment rates, if they are materially lower than those included in the institution's marketing materials, website, or other communications made to the student or prospective student, including but not limited to:
  - (i) Rates that are calculated in a manner that is inconsistent with the standards or methodology set forth by the institution's accreditor or a State agency that regulates the institution, or in its institutional policy.

- (ii) Rates that the institution discloses to students are inflated by means such as:
  - (A) Counting individuals as employed who are not bona fide employees, such as individuals placed on a 1-day job fair, an internship, externship, or in employment subsidized by the institution;
  - (B) Counting individuals as employed who were employed in the field prior to graduation; or
  - (C) Excluding students from an employment rate calculation due to assessments of employability or difficulty with placement.
- (2) Upon request, the institution must furnish to the Secretary documentation and other information used to calculate the institution's employment rate calculations.

***§ 668.75 Omission of fact.***

An omission of fact is a misrepresentation under § 668.71 if a reasonable person would have considered the omitted information in making a decision to enroll or continue attendance at the institution. An omission of fact includes, but is not limited to, the concealment, suppression, or absence of material information or statement concerning—

- (a) The entity that is actually providing the educational instruction, or implementing the institution's recruitment, admissions, or enrollment process;
- (b) The availability of enrollment openings in the student's desired program;
- (c) The factors that would prevent an applicant from meeting the legal or other requirements to be employed in the field for which the training is provided, for reasons such as prior criminal record or preexisting medical conditions;
- (d) The factors that would prevent an applicant from meeting the legal or other requirements to be employed, licensed, or certified in the field for which the training is provided because the academic, professional, or occupational degree or credential that the institution will confer upon completion of the course of study has not been authorized by the appropriate State educational or licensure agency, or requires specialized accreditation that the institution does not have; or,
- (e) The nature of the institution's educational programs, the institution's financial charges, or the employability of the institution's graduates as defined in § 668.72-74.

**AGGRESSIVE AND DECEPTIVE RECRUITMENT TACTICS OR CONDUCT**

***§ 668.501 Aggressive and deceptive recruitment tactics or conduct.***

(a) Aggressive and deceptive recruitment tactics or conduct include but are not limited to actions by the institution, any of its representatives, or any institution, organization, or person with whom the institution has an agreement to provide educational programs, marketing, recruitment, or lead generation that:

- (1) Demand or pressure the student or prospective student to make enrollment or loan-related decisions immediately, including falsely claiming that the student or prospective student would lose their opportunity to attend;
- (2) Take unreasonable advantage of a student's or prospective student's lack of knowledge about, or experience with, postsecondary institutions, postsecondary programs, or financial aid to pressure the student into enrollment or borrowing funds to attend the institution;
- (3) Discourage the student or prospective student from consulting an adviser, a family member, or other resource or individual prior to making enrollment or loan-related decisions;
- (4) Obtain the student's or prospective student's contact information through websites or other means that:
  - (i) Falsely offer assistance to individuals seeking Federal, state or local benefits;
  - (ii) Falsely advertise employment opportunities; or,
  - (iii) Present false rankings of the institution or its programs;

- (5) Use threatening or abusive language or behavior toward the student or prospective student; or,
- (6) Repeatedly engage in unsolicited contact for the purpose of enrolling or reenrolling after the student or prospective student has requested not to be contacted further.

## **NOTICE OF LIMITS OF LIABILITY**

CCU offers its students some services for which it does not impose charges, such as parking facilities. For these services, the university does not assume any responsibility, and these vary depending on the campus.

## **CHANGE NOTIFICATION**

The student who requests and is admitted to CCU certifies and accepts that their relationship with this university will be subjected to the dispositions contained in this catalog and to the university regulations. CCU reserves the right to make changes to this catalog, even during its validity.

## **INSTITUTIONAL STATEMENT ON EQUAL OPPORTUNITIES NON-DISCRIMINATION**

Columbia Central University guarantees equal opportunities to its applicants for employment and admission, as well as to students and employees, both in terms of study and employment opportunities, as well as in the enjoyment of the services and academic programs offered and in terms and conditions of work.

## **NOTICE OF NONDISCRIMINATION**

### **General**

Columbia Central University (“CCU”) seeks to comply with all federal, state, and local laws, regulations, and ordinances prohibiting discrimination in private post-secondary education institutions.

CCU 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**

CCU 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 CCU’s Title IX Coordinator, the U.S. Department of Education’s Office for Civil Rights, or both. CCU’s Title IX Coordinator is Ms. Norelis Rodríguez, 61 Ponce de León Ave., San Juan, PR 00917, [norodriguez@columbiacentral.edu](mailto:norodriguez@columbiacentral.edu), and 787-704-1020, ext. 140. Contact information for OCR is available here: <https://ocrcas.ed.gov/contact-ocr>.

CCU’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.

## **CHANGE OF STATUS**

The student must inform the university of any change in his/her status that alters in any way the information in the required documents and those others that he/she submitted over time.

## **ACADEMIC RECORDS**

The academic record and all other information related to the student will be treated confidentially. The disclosure of any content of the student's academic record will be done through the parameters established in the FERPA Act (“Family Educational Right and Privacy Act”). For more information, please refer to this in the Institutional Policy Manual.

Access to student records will be allowed to those institutional officials who, individually or collectively, act in the educational interest of students and whose access to such records is authorized by law.

## **FREQUENCY OF CLASS OFFERINGS**

The university undertakes to offer the courses required by the programs as they are demanded by the suggested sequence of classes, at least once a year, in one of its day, evening, Saturday or online sessions.

## **CLASS SUBSTITUTION**

The university reserves the right to substitute equivalent classes for the programs that make up the programs if they do not substantially affect their educational objectives.

## **ACADEMIC FREEDOM**

By academic freedom, the university understands the discretion that the professor must present and discuss the topics that make up the course in the way that the professor understands best to achieve the objectives and to evaluate the students about achievement of those goals.

## **STUDENT PARTICIPATION**

The university encourages and respects student participation and the right to dissent. However, in the exercise of these rights, privileges, and prerogatives, the student must ensure that they do not affect the security or image of the university, hinder its normal operation, or endanger its educational purpose, which is the reason for this University.

The university is committed to guaranteeing the exercise of democratic principles in a responsible and constructive manner, as applied to private educational institutions and according to the terms, definitions and conditions established in the Student Regulations that this university has duly promulgated and adopted published in the Institutional Policy Manual.

## **POLICY APPLICABILITY**

Institutional policies apply to all university students: regular and non-regular, presential, and online, youth and adults, of the different programs and academic modalities of the campus. In other words, they apply to everyone equally, of course, to the extent and dimension in which it corresponds to each.

## **ACADEMIC INFORMATION**

## ACADEMIC ORGANIZATION

CCU starts with the belief that education is a life-long process and that the person, through this process, changes interest and needs while accumulating knowledge derived from their work and professional activities. In keeping with this, the university has structured its academic phase in such a way as to offer the student maximum flexibility to achieve their educational goals, according to their interests, needs and level of knowledge.

The CCU faculty understands that the best structure is a modular one that offers the student several levels of study programs and that also caters for the individual differences and preferences of the students. At present, the current academic structure is composed of four levels: the Certificate Level, Associate Degree Level, the Baccalaureate Level, and the Master's Level \*.

The Certificate is at a vocational-technical academic level. Its purpose is to train the students in a short time to meet the demand of the job market. The Associate Degree is the first level of studies at the university level and its emphasis is also vocational-technical. Unlike the Certificate, this level includes general education courses that offer the student more extensive training. However, if the student already has a certificate and wishes to continue studies in that same academic area, then the university may consider that knowledge to validate it, as far as possible, towards their university studies, so that they do not lose what they have acquired. The courses corresponding to the first and second year are those contained in the curriculum of the Certificate and/or Associate Degree programs.

The Baccalaureate Degree is the second level of studies at the university level. The courses corresponding to the third and fourth year are those contained in the curriculum of the Baccalaureate programs. The Graduate or Master \* program is the highest-level of studies offered at the university. The master's degree welcomes any student who has completed a baccalaureate and meets the admission requirements to the master's program \*.

\* Only available on the Caguas Campus

## **CODIFICATION LEVELS**

1	First Level	Certificates and Associate Degrees – Lower Division
2	Second Level	Associate Degree – Lower Division
3	Third Level	Bachelorette – Higher Division
4	Fourth Level	Bachelorette – Higher Division
5	Fifth Level	Master – Graduate Division
6	Sixth Level	Master – Graduate Division

## **COURSE CODING SYSTEM**

Courses are identified by a four-letter code, followed by a 4- or 5-digit number. The letters identify the name of the course in English, the first number identifies the level, and the remaining numbers are assigned in sequence. Laboratory courses will be identified with an “L” after their numerical coding. Some of the Associate Degree and Certificate Professional Education and General Education courses may be coded three.

## **GENERAL DOCUMENTS REQUIRED FOR PROGRAMS CONTAINING THE PRACTICE COMPONENT (as applicable)**

The documents listed below are not part of the documents required for the student to be admitted to Columbia Central University, but it is necessary to detail them, as some of the academic programs offered at the university require students to do an internship in a real work setting as part of the requirements to complete the study program and obtain the degree. It will be the student’s responsibility to comply with the practice center requirements and it is compulsory that during the course of studies the student manages them and thus can begin their practice and that their studies are not interrupted because they are not aware of them. These requirements may vary depending on what is established by the practice center to which the student attends:

1. Certification of Cardiopulmonary Resuscitation (CPR)
2. Original Negative Criminal Record Certificate
3. Original Health Certificate
4. HIPPA Certificate
5. Hepatitis B Vaccine
6. Varicella Vaccine
7. Influenza Vaccine
8. Negative Certification of Law 300

If the student refuses or fails to meet any of the requirements established by the practice center, he/she could be unable to carry out his/her practice and, consequently, not pass the practice component of the study program, nor meet the graduation requirements of the academic program.

**Note:** The documents required for the practice may vary depending on the study program. Please refer to the Academic Program to which the student was admitted for detailed information on the requirements for the practice.

## **COMPLIANCE WITH REGULATED PROFESSION REQUIREMENTS**

Some professions have revalidation requirements to practice the profession. That is why students and graduates who aspire to practice a regulated profession must comply with the legislation, regulations, and requirements established by the board that grants the license, which applies to their profession. The

requirements to revalidate may vary from one jurisdiction to another.

Additionally, some employers in the private sector or government agencies have revalidation, examination, or test requirements to apply for employment. That is why in these cases the students or graduates who apply for employment must meet the additional requirements to the studies or diplomas offered and conferred by the university.

## **POLICY FOR PAYMENT OF REGISTRATION FOR THE BOARD EXAM**

This policy is extensive and applicable to all course students whose exercise or practice in the Commonwealth of Puerto Rico requires the approval of a certification or revalidation exam. The policy guarantees the university's commitment to promote the exercise of the processing and completion of the revalidation exam among students as required by the State, through the payment, assumed by the university, of the registration for the revalidation exam of your discipline, as applicable.

Columbia Central University, as a responsible educational institution, guarantees the imparting and exchange of knowledge and skills by offering practical experiences that facilitate the student's transition to the labor market.

A fundamental part of the university's commitment resides in the genuine interest of maximizing the professional success of its graduates. This success in most health professions is measured after passing a certification or revalidation exam administered by the Examining Board governing the discipline that applies.

Given the responsibility for the academic achievement of students and to promote the healthy and effective process of transition to the world of work, Columbia Central University establishes its Institutional Policy for the Payment of the Bar Examination Registration.

Columbia Central University undertakes to process and defray the payment of the bar exam registration to graduates, exam candidates, under the following terms and conditions and if they complete the following requirements:

1. Have delivered all the documents applicable to the examination request to the Placement Office on the dates indicated and according to the instructions given by a representative of said office.
2. Having attended the orientations, reviews, or other activities related to the revalidation examination process that have been convened by the university, on the established dates.
3. Having completed the application for examination registration for the first time.

The university will not issue a payment, nor will it reimburse payments for the application or examination registration to graduates who do not meet the requirements described above. A student who has been paid for an exam and does not show up to take it, will be responsible for reimbursing the cost of the exam. For these situations in which case the student has to reimburse the exam registration, the cost of said registration will be added to their university account.

### **Exceptions**

- This policy does not apply to graduates who have tried to take the exam in multiple occasions and to whom the institution has already paid for the registration of said exam.
- This policy also does not apply to graduates who have not submitted to the exam's call and have reimbursed or have pending reimbursement of the registration fee to take their exam.

## **POLICY FOR DOCUMENTATION AND EVALUATION OF EXTERNAL WORK ACTIVITIES**

Columbia Central University (CCU) reaffirms its commitment to offering the highest quality educational services to its students. The university recognizes that the co-curricular and academic activities that the student carries out outside the classroom are conducive to the development and acquisition of knowledge, skills, abilities, and competencies that, indirectly, expand and complement the learning and teaching processes. This policy will be applicable in each academic term in which courses are offered with assignment of an Independent Supplementary Component.

CCU demonstrates consistent compliance with regulations and policies applicable to its programs. The tasks and homework activities assigned to the students by the faculty with the objective of working outside the classroom is an additional learning mechanism. Columbia Central University also recognizes the importance of supplementing class material and discussion with additional external work activities that are designed to support the learning objectives of the course.

The learning activities that students carry out can include, but are not limited to article analysis, special projects, modules, video analysis, and answering guiding questions after analyzing a reading, among others. The syllabus that is given to each student at the beginning of each course will specify the additional hours of external work, the assigned learning activities, and the value in terms of percentage that they represent in the final grade of said course. This policy aims to ensure that the assignment of external work is according to the established regulations, promote means to ensure correct documentation and evidence of the activities considered as external, and facilitate the supervision processes of the faculty in a uniform manner. Columbia Central University will provide a document for the registration of activities to document and evidence the assignment and evaluation of external work tasks according to the established regulations and the CIS assigned to each course.

The professor will guide the student and explain the instructions to follow to complete the required learning activities. In addition, the student will discuss the evaluation criteria for each activity. The professor will have a record of the activities assigned to the students through which it is certified that they have met the hours of external work and the learning objectives. The professor will deliver a sample of the external work done by the student to the Academic Coordinator of his/her Program. In the grade report that the professor presents to the Registrar, the grade awarded to the student for carrying out the External Work will be identified.

## **GRADUATION REQUIREMENTS**

All those students who have fulfilled the requirements of their study program and, in addition, have:

1. Achieved a GPA of 3.00 or higher for graduate-level programs
2. Achieved a general academic average of 2.00 or more depending on the program and level. Refer to the study program if it is different from the 2.00
3. Approved at the university at least 24 credits of residency
4. Fulfilled its financial obligations.
5. Approved the courses as established by the minimum qualification policy of their study program.
6. Requested at the Registrar's Office or online services at [www.columbiacentral.edu](http://www.columbiacentral.edu) for a graduation evaluation with at least 2 terms prior to graduation; so that the student have the courses available to complete their degree on the established date.

## ACADEMIC DISTINCTIONS

The university grants the distinctions detailed below in recognition of academic achievement and performance, based on the graduation average.

1. **ACADEMIC EXCELLENCE** - for those who achieve an academic graduation average of 4.00 at the graduate level.
2. **SUMMA CUM LAUDE** - for those who achieve an academic graduation average of 4.00 to 3.90.
3. **MAGNA CUM LAUDE** - for those who achieve an academic graduation average between 3.89 and 3.75.
4. **CUM LAUDE** - for those who achieve an academic graduation average between 3.74 and 3.60.
5. The **VALEDICTORIAN** is also awarded. This distinction is conferred after a selection process in which the following criteria are used, choosing an institutional one:
  - a. Have passed all courses at the university.
  - b. Have obtained an academic graduation average of 4.00.
  - c. Be recommended by the faculty.
  - d. Have demonstrated leadership and initiative by participating in the different activities carried out at the university.
  - e. Have observed behavioral excellence (discipline) and worthy of admiration among the university community.
  - f. Have shown a high spirit of companionship, empathy, and good human relationships.
  - g. Have contributed positively to the university and the community in general.
  - h. Having exhibited characteristics such as: responsibility, interest, and good willingness to carry out assigned work or projects.

### Distinguished Graduate Award

Evaluation criteria:

1. Be among the highest academic graduation averages in the graduating class and in the program.
2. Have demonstrated leadership and initiative by participating in different activities at Columbia Central University.
3. Have demonstrated interest, disposition, ability, knowledge, and love for their profession in their specialty courses.
4. Have demonstrated behavioral excellence (discipline) and worthy of admiration among the entire Columbia Central University community.

## HONOR ROLL

### Philosophy

The CCU Honor Roll provides all those students who accumulate an outstanding academic average within a single program, the opportunity to be deserving of recognition for their academic performance.

### Objectives

1. Recognize the academic performance of those students who have accumulated an outstanding academic average and who meet all the criteria for recognition.
2. Give recognition to all participating students in a summit activity to be held annually.
3. Recognize all selected students through publications to the student community, if applicable.

### Selection Criteria

1. Have a GPA of 3.75 or higher.

2. Have a minimum of 24 credits approved in CCU in the same program within the academic year. The credits must be approved with grades.
3. Remain as an active student throughout the year if the student does not finish the study program in which he/she is worthy of said recognition.

#### Selection Process

1. Identify the students who accumulate an academic average and who meet all the selection criteria to belong to the Honor Roll.
2. The Guidance and Counseling Office will evaluate and certify the students who meet the selection criteria. This evaluation will be carried out in the term of September-December of the following year, being the same term in which the recognition activity is held.

#### Privileges

1. The student credit transcript will reflect that the student was in the Honor Roll.
2. Recognition will be given in the activity that will be offered annually.
3. Will have preferential treatment at the time of registration processes.

## **RESULTS OF THE TEACHING-LEARNING PROCESS**

Information on the results of the teaching-learning process is available to prospective visitors/students through the Academic Directors/Coordinators. They may request the information and discuss doubts they have related to the appraisal process or the results with each of them.

## **PROGRAMS UNDER MODULAR STRUCTURES**

Programs under the modular structure are offered in terms of 8 weeks.

## **GENERAL EDUCATION COMPONENT**

The General Education Component (CEG) of Columbia Central University (CCU) contributes to the development of an integral being in the students at the different schools. The courses are part of the academic offerings, and they work in harmony with the different schools.

The CCU General Education Component has identified 6 basic skills. These are Oral Communication, Written Communication, Quantitative and Qualitative Reasoning, Critical Thinking, Information Literacy, and Technological Skills. The CEG cannot be a separate entity in the university but must work in harmony with the different schools and their programs. In this way, the integration of skills in the different courses, both general and specialty is made possible, which contributes to the integral development of each student.

The courses belong to several disciplines: linguistics, humanities, social sciences, natural sciences, and mathematics. These courses contribute, among other aspects: in the cultural, social, and environmental aspects of each academic program. The CEG has the interest of helping students who enroll in CCU to achieve their academic goal and that may be useful to our society and contribute to the fulfillment of the university mission.

## **ACADEMIC PROGRAMS**

**SCHOOL OF BUSINESS ADMINISTRATION**

# **SCHOOL OF BUSINESS ADMINISTRATION**

## **DESCRIPTION OF THE SCHOOL**

The purpose of the School of Management is to prepare professionals in the fundamental areas of business administration. As part of the academic proposal, the following programs are offered: Master's Degree in Business Administration, with three specialties (Management, Human Resources and Administration in Health Organizations), Bachelor's Degree in Business Administration and Associate's Degree in Business Administration.

The organizational structure of the School of Management is composed of a director. This director oversees the development, implementation and evaluation of the courses offered in each program and academic level, according to their complexity, as well as the teaching-learning process.

## **MISSION**

To form an integral human being, capable of performing optimally in professional technical, administrative, and business areas with the highest sense of ethics and responsibility, as well as with a high degree of professionalism. To this end, we will develop professionals or leaders with values and impart knowledge, skills, abilities, and cutting-edge competencies adapted to the corresponding academic level.

## **VISION**

To be recognized as the School of Management that best contributes to the continuous development of human capital at the professional and business levels in the academic, professional and research fields.

## **GOALS**

1. To develop in the student the knowledge, skills, abilities, and competencies in the areas related to administration.
2. To ensure in the student an effective application of the fundamental concepts and principles in their area of specialty, in order to perform in a responsible and successful way in their professional life.
3. To promote the formation of a human being with a high sense of social and ethical responsibility.
4. Contribute to the recognition of the brand through our academic programs, providing cutting-edge solutions to communities that are constantly evolving, through the knowledge generated in the administrative and academic fields.
5. To certify a culture of evaluation and continuous improvement in the administrative and academic areas.

**MASTER'S DEGREE IN BUSINESS ADMINISTRATION WITH SPECIALTY IN MANAGEMENT****CIP Code: 52.0201****SOC Code: 11-1011, 11-1021, 11-3011, 11-3131, 11-9199****Credits: 39 credits****Duration: 1 year****Location: Caguas****Modality of Study: On ground and Online**

The master's degree in business administration with a specialty in Management will equip students with the management and leadership skills necessary to face a constantly changing business world. Throughout the program, they will use knowledge and skills in key management areas, such as strategic management, ethical leadership, project management, and human resources management. Likewise, students will develop practical skills related to business decision-making, problem resolution, and effective work team and project management. Graduates of this program will be able to work as general managers, operations managers, administrative directors, or project leaders, among others.

**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.

**Graduation Requirements:**

1. Have achieved a minimum GPA of 3.00 or more.

**MASTER'S DEGREE IN BUSINESS ADMINISTRATION  
WITH A SPECIALTY IN MANAGEMENT**

**CURRICULAR STRUCTURE**

**CORE COURSES**

Prescribed: 24 credits

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
MBA	5000	Organizational Behavior	45	3
MBA	5010	Marketing Management	45	3
MBA	5020	Managerial Economics	45	3
MBA	5040	Managerial Accounting	45	3
MBA	5050	Managerial Finance	45	3
MBA	6000	Business Administration Integrating Seminar	45	3
REME	5100	Research Methodology	45	3
STAT	5210	Statistics	45	3

Sub-Total: 360 hours 24 credits

**MAJOR COURSES**

Prescribed: 15 credits

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
MANA	6000	Management and Strategic Leadership	45	3
MANA	6010	Ethical Leadership	45	3
MANA	6020	Global Strategic Management	45	3
MBA	5240	Project Management and Administration	45	3
MANA	6030	Human Capital Management	45	3

Sub-total: 225 hours 15 credits

The curricular structure of the master's degree in business administration with specialty in Management includes the following components:

COMPONENT	HOURS	CREDITS
Core Courses	360	24
Major Courses	225	15
Total	585	39

**MASTER'S DEGREE IN BUSINESS ADMINISTRATION  
WITH A SPECIALTY IN MANAGEMENT  
CURRICULUM SEQUENCE**

COURSE	CODE	COURSE NAME	PRE-REQUISITES	CREDITS
<b>FIRST TERM: 12 CREDITS</b>				
MBA	5000	Organizational Behavior	----	3
MBA	5010	Marketing Management	----	3
MBA	5020	Managerial Economics	----	3
MANA	6000	Management and Strategic Leadership	----	3
<b>SECOND TERM: 15 CREDITS</b>				
MBA	5040	Managerial Accounting	----	3
MANA	6010	Ethical Leadership	----	3
STAT	5210	Statistics	----	3
MBA	5240	Project Management and Administration	----	
MANA	6020	Global Strategic Management	----	3
<b>THIRD TERM: 12 CREDITS</b>				
MBA	5050	Managerial Finance	----	3
REME	5100	Research Methodology	----	3
MANA	6030	Project Management in Health Care Organizations	----	3
MBA	6000	Human Capital Management	MBA 5050	3

**Grand Total of the master's degree in business administration with specialty in Management: 39 credits and 585 hours**

\*\* The student does not necessarily have to follow the suggested course order, but the order helps them complete their degree in the stipulated time. The student must be aware of taking the courses that have prerequisites in an order that allows them to continue taking the other courses without problems. Courses without prerequisites have no specific order. The student can register for them in the term that they are offered.

**MINIMUM GRADING POLICY**

Students enrolled in the master's degree in business administration with specialty in Management must obtain at least a grade of B when passing all courses.

## **MASTER'S DEGREE IN BUSINESS ADMINISTRATION WITH SPECIALTY IN HUMAN RESOURCES**

**CIP Code: 52.1001**

**SOC Code: 11-3111, 11-3121, 13-1071, 13-1141**

**Credits: 39 credits**

**Duration: 1 year**

**Location: Caguas**

**Modality of Study: On ground and Online**

The master's degree in business administration with a specialty in Human Resources will prepare students for managing human talent, organizations, and work environments to achieve organizational goals. Students will apply practical knowledge of labor law and state and federal legislation relevant to the processes of a human resources (HR) department. They will develop skills in data analysis and interpretation for informed decision-making in human resource management.

They will examine how the business strategy aligns with the human capital strategy of a business. Students will evaluate how HR decisions contribute to organizational effectiveness and the competitive advantage of a business. They will analyze case studies and scenarios specific to the human resources profession to develop the competencies necessary to effectively perform their roles. Program graduates will be able to work as chief human resource officers (CHRO), human resources business partners, human resources managers, human resources specialists, and consultants, among others.

### **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.

**Graduation Requirements:**

2. Have achieved a minimum GPA of 3.00 or more.

**MASTER'S DEGREE IN BUSINESS ADMINISTRATION  
WITH A SPECIALTY IN HUMAN RESOURCES**

**CURRICULAR STRUCTURE**

**CORE COURSES**

**Prescribed: 24 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
MBA	5000	Organizational Behavior	45	3
MBA	5010	Marketing Management	45	3
MBA	5020	Managerial Economics	45	3
MBA	5040	Managerial Accounting	45	3
MBA	5050	Managerial Finance	45	3
MBA	6000	Business Administration Integrating Seminar	45	3
REME	5100	Research Methodology	45	3
STAT	5210	Statistics	45	3

**Sub-Total:** **360 hours** **24 credits**

**MAJOR COURSES**

**Prescribed: 15 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
HURE	6000	Human Resources Role in Organizations	45	3
HURE	6015	Total Compensation Strategy	45	3
HURE	6025	Employment Law	45	3
HURE	6035	People Analytics	45	3
HURE	6045	Strategic Human Resources Management (Capstone)	45	3

**Sub-total:** **225 hours** **15 credits**

The curricular structure of the master's degree in business administration with specialty in Human Resources includes the following components:

COMPONENT	HOURS	CREDITS
Core Courses	360	24
Major Courses	225	15
<b>Total</b>	<b>585</b>	<b>39</b>

**MASTER'S DEGREE IN BUSINESS ADMINISTRATION  
WITH A SPECIALTY IN HUMAN RESOURCES**

**CURRICULUM SEQUENCE**

COURSE	CODE	COURSE NAME	PRE-REQUISITES	CREDITS
<b>FIRST TERM: 12 CREDITS</b>				
MBA	5000	Organizational Behavior	---	3
MBA	5010	Marketing Management	---	3
MBA	5020	Managerial Economics	---	3
HURE	6000	Human Resources Role in Organizations	---	3
<b>SEGUNDO TÉRMINO: 15 CRÉDITOS</b>				
MBA	5040	Managerial Accounting	---	3
HURE	6015	Total Compensation Strategy	---	3
STAT	5210	Statistics	---	3
HURE	6025	Employment Law	---	
HURE	6035	People Analytics	---	3
<b>TERCER TÉRMINO: 12 CRÉDITOS</b>				
MBA	5050	Managerial Finance	---	3
REME	5100	Research Methodology	---	3
HURE	6045	Strategic Human Resources Management (Capstone)	---	3
MBA	6000	Human Capital Management	MBA 5050	3

**Grand Total of the master's degree in business administration with specialty in Human Resources: 39 credits and 585 hours**

\*\* The student does not necessarily have to follow the suggested course order, but the order helps them complete their degree in the stipulated time. The student must be aware of taking the courses that have prerequisites in an order that allows them to continue taking the other courses without problems. Courses without prerequisites have no specific order. The student can register for them in the term that they are offered.

**MINIMUM GRADING POLICY**

Students enrolled in the master's degree in business administration with specialty in Human Resources must obtain at least a grade of B when passing all courses.

**MASTER'S DEGREE IN BUSINESS ADMINISTRATION SPECIALTY IN HEALTH ORGANIZATION MANAGEMENT**

**CIP Code: 51.0701**

**SOC Code: 11-9111**

**Credits: 39 credits**

**Duration: 1 year**

**Location: Caguas**

**Modality of Study: On ground and Online**

The master's degree in business administration with a specialty in Health Organization Management offers students the theoretical foundations of the administration of health service organizations. Students will analyze the quality indicators that measure the provision of health services for the formulation and review of public and institutional policies, as well as laws and regulations that have an impact on the ethical care of a patient. They will determine the challenges to be overcome in terms of access to health based on social determinants. The program aims to develop students' skills in project and health information management. Graduates of this program can hold managerial and administrative positions in organizations related to the healthcare industry.

**PROGRAM COMPETENCIES**

1. Apply critically and creatively to 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.

**Graduation Requirements:**

3. Have achieved a minimum GPA of 3.00 or more.

**MASTER'S DEGREE IN BUSINESS ADMINISTRATION  
WITH A SPECIALTY IN HEALTH ORGANIZATION MANAGEMENT**

**CURRICULAR STRUCTURE**

**CORE COURSES**

**Prescribed: 24 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
MBA	5000	Organizational Behavior	45	3
MBA	5010	Marketing Management	45	3
MBA	5020	Managerial Economics	45	3
MBA	5040	Managerial Accounting	45	3
MBA	5050	Managerial Finance	45	3
MBA	6000	Business Administration Integrating Seminar	45	3
REME	5100	Research Methodology	45	3
STAT	5210	Statistics	45	3

**Sub-Total:** **360 hours 24 credits**

**MAJOR COURSES**

**Prescribed: 15 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
HEMA	6010	Fundamentals of Health Care Management	45	3
HEMA	6015	Health Planning and Policies	45	3
HEMA	6020	Legal and Ethical Issues in Health Care Management	45	3
HEMA	6030	Health Information Management	45	3
HEMA	6040	Project Management in Health Care Organizations	45	3

**Sub-total:** **225 hours 15 credits**

The curricular structure of the master's degree in business administration with specialty in Health Organization Management includes the following components:

COMPONENT	HOURS	CREDITS
Core Courses	360	24
Major Courses	225	15
<b>Total</b>	<b>585</b>	<b>39</b>

**MASTER'S DEGREE IN BUSINESS ADMINISTRATION  
WITH A SPECIALTY IN HEALTH ORGANIZATION MANAGEMENT**

**CURRICULUM SEQUENCE**

COURSE	CODE	COURSE NAME	PRE-REQUISITES	CREDITS
<b>FIRST TERM: 12 CREDITS</b>				
MBA	5000	Organizational Behavior	----	3
MBA	5010	Marketing Management	----	3
MBA	5020	Managerial Economics	----	3
HEMA	6010	Fundamentals of Health Care Management	----	3
<b>SECOND TERM: 12 CREDITS</b>				
MBA	5040	Managerial Accounting	----	3
HEMA	6015	Health Planning and Policies	HEMA 6010	3
STAT	5210	Statistics	----	3
HEMA	6020	Legal and Ethical Issues in Health Care Management	----	3
<b>THIRD TERM: 15 CREDITS</b>				
MBA	5050	Managerial Finance	----	3
HEMA	6030	Health Information Management	----	3
REME	5100	Research Methodology	----	3
HEMA	6040	Project Management in Health Care Organizations	----	3
MBA	6000	Business Administration Integrating Seminar	MBA 5050	3

**Grand Total of the master's degree in business administration with specialty in Health Organization Management: 39 credits and 585 hours**

\*\* The student does not necessarily have to follow the suggested course order, but the order helps them complete their degree in the stipulated time. The student must be aware of taking the courses that have prerequisites in an order that allows them to continue taking the other courses without problems. Courses without prerequisites have no specific order. The student can register for them in the term that they are offered.

**MINIMUM QUALIFICATION POLICY**

Students enrolled in the master's degree in business administration with specialty in Health Organization Management must obtain at least a grade of B when passing all courses.

## **BACHELOR'S IN BUSINESS ADMINISTRATION**

**Credits: 120**

**Duration: Two Years and eight months**

**Location: Caguas Main**

**Study Modality: Face to Face and Distance Education**

The Bachelor's in Business Administration (BBA) is aimed at the adult student who wishes to climb leadership positions within a company, either because he/she works in it or wants to start his/her own business. Therefore, you need to monitor, build, and apply the knowledge, skills and abilities acquired in the program to effectively contribute to the development of the company.

The curricular content of the BBA reflects a broad spectrum of administration within which are contained both general management, marketing, entrepreneurship, economics, human resources management, accounting, finance, information systems, occupational health and safety, operations management, statistics, and strategic planning, among others. The structure of the program introduces the student to academic experiences from the first term of studies.

BBA students will work on a research proposal and carry out an internship in a private company or public agency where they apply what they previously learned in the courses.

### **ADDITIONAL PROGRAM REQUIREMENTS:**

1. Orientation with the Director of the School of Administration

### **GRADUATION REQUIREMENTS:**

All those students who have fulfilled the requirements of their study program and, in addition, have:

1. Completed at least 120 credits between courses taken at CCU and those transferred from other institutions or programs.
2. Of the 24 credits that must be approved in the university, 12 will be in Professional Education.
3. Achieved a minimum GPA of 2.25 in Professional Education courses.
4. Achieved a minimum GPA of 2.25.

**BACHELOR'S IN BUSINESS ADMINISTRATION**  
**CURRICULAR STRUCTURE**

**GENERAL EDUCATION COURSES**

**Prescribed: 33 credits**

COURSES	CODE	COURSE NAME	CONTACT HOURS	CREDITS
COPR	3011	Contemporary Problems	45	3
ENGL	1101	Basic English I	60	3
ENGL	1102	Basic English II	45	3
HIST	3004	History of Puerto Rico	45	3
HUMA	3005	World History I	45	3
HUMA	3006	World History II	45	3
SCIE	4001	General Science	45	3
SCIE	4002	Environmental Science	45	3
SEMI	1105	College Success and Professional Seminar	45	3
SPAN	1101	Basic Spanish I	60	3
SPAN	1102	Basic Spanish II	45	3

**Sub - total:** **525 hours** **33 credits**

**GENERAL EDUCATION ELECTIVES**

**Electives: The student must select 2 courses for a total of 6 credits**

COURSES	CODE	COURSE NAME	HOURS CONTACTS	CREDITS
ART	2009	Art History	45	3
COMU	3010	Effective Communication	45	3
ECON	2012	Puerto Rican Economy	45	3
ENGL	3001	Conversational and Compositional English	45	3
HURE	1104	Human Relations	45	3
POSC	2013	Introduction to Political Science	45	3
PSYC	2014	Principles of Psychology	45	3
SOCI	2015	Principles of Sociology	45	3
SPAN	3002	Advanced Spanish	45	3

**Sub - total:** **90 hours** **6 credits**

## RELATED COURSES

**Prescribed: 3 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
COMP	1205	Introduction to Computers	60	3

**Sub-total: 60 hours 3 credits**

## CONCENTRATION COURSES

**Prescribed: 57 credits**

COURSES	CODE	COURSE NAME	HOURS CONTACT	CREDITS
ACCO	2200	Administrative Accounting	60	3
ACCO	4001	Management Accounting	45	3
ECON	1204	Principles of Economics	45	3
ENTR	1001	Entrepreneurship	45	3
FINA	4002	Corporate Finance	45	3
MANA	1207	Principles of Management	45	3
MANA	2303	Legal and Ethical Aspects	45	3
MANA	2403	Human Resources Management	45	3
MANA	3002	Effective Supervision	45	3
MANA	4004	Operations Management	45	3
MANA	4005	Customer Service	45	3
MANA	4006	Strategic Planning	45	3
MANA	4011	Organizational Behavior	45	3
MANA	4012	Negotiation and Mediation at Work	45	3
MANA	4013	Management Research	45	3
MANA	4014	Seminar and Internship in Administration	105	3
MARK	1301	Marketing Principles	45	3
MATH	1206	Business Mathematics	60	3
STAT	3103	Statistics	45	3

**Sub-total: 945 hours 57 credits**

### **PROFESSIONAL EDUCATION COURSES (Vocational Technician)**

**Prescribed: 21 credits**

<b>COURSES</b>	<b>CODE</b>	<b>COURSE NAME</b>	<b>HOURS CONTACTS</b>	<b>CREDITS</b>
ENGL	2206	Business Writing in English	45	3
MANA	2020	Claims Practice Liability	45	3
MANA	2413	Integrated Systems Management	45	3
MANA	4000	Effective Communication for Managers	45	3
MANA	4009	Advanced Management	45	3
SECU	1040	OSHA Safety and Regulations	45	3
SPAN	2207	Commercial Writing in Spanish	45	3

**Sub - total:**

**315 hours**

**21 credits**

**BACHELOR'S IN BUSINESS ADMINISTRATION**

**SUGGESTED PROGRAM OF STUDIES \*\***

**(Study Modality: On ground and Online)**

COURSE	CODE	COURSE NAME	PREREQUISITES	CREDITS
<b>FIRST TERM: 15 CREDITS</b>				
COMP	1205	Introduction to Computers	---	3
ENTR	1001	Entrepreneurship	---	3
MANA	1207	Principles of Management	---	3
MARK	1301	Marketing Principles	---	3
SEMI	1105	College Success and Professional Seminar	---	3
<b>SECOND TERM: 15 CREDITS</b>				
ACCO	2200	Administrative Accounting	---	3
ECON	1204	Principles of Economics	---	3
MANA	2303	Legal Aspects and Ethics	---	3
MANA	2403	Human Resources Management	MANA 1207	3
MATH	1206	Business Mathematics	---	3
<b>THIRD TERM: 15 CREDITS</b>				
ENGL	1101	Basic English I	---	3
MANA	2413	Integrated Systems Management	COMP 1205	3
MANA	3002	Effective Supervision	MANA 1207 MANA 2403	3
MANA	4005	Customer Service	MARK 1301	3
SECU	1040	OSHA Safety and Regulations	MANA1207 MANA 2403	3
<b>FOURTH TERM: 15 CREDITS</b>				
ENGL	1102	Basic English II	ENGL 1101	3
HUMA	3005	World History I	---	3
MANA	4000	Effective Communication for Managers	MANA 1207 MANA 2403	3
SPAN	1101	Basic Spanish I	---	3
STAT	3103	Statistics	---	3

COURSE	CODE	COURSE NAME	PREREQUISITES	CREDITS
<b>FIFTH TERM: 15 CREDITS</b>				
ACCO	4001	Management Accounting	ACCO 2200	3
ENGL	2206	Business Writing in English	ENGL 1102	3
MANA	2020	Claim Practices of Civil Responsibility	---	3
MANA	4006	Strategic Planning	MANA 1207 MATH 1206	3
SPAN	1102	Basic Spanish II	SPAN 1101	3
<b>SIXTH TERM: 15 CREDITS</b>				
FINA	4002	Corporate Finance	ACCO 2200	3
MANA	4004	Operations Management	MANA 1207 STAT 3103	3
MANA	4011	Organizational Behavior	MANA 1207	3
SCIE	4001	General Science	---	3
SPAN	2207	Commercial Writing in Spanish	SPAN 1102	3
<b>SEVENTH TERM: 15 CREDITS</b>				
HIST	3004	History of Puerto Rico	---	3
MANA	4009	Advanced Management	MANA 1207 MANA 4006 MARK 1301	3
MANA	4012	Negotiation and Work Mediation	MANA 1207 MANA 2303	3
MANA	4013	Research Management	MANA 1207 MATH 1206 STAT 3103	3
SCIE	4002	Environmental Science	---	3
<b>EIGHTH TERM: 15 CREDITS</b>				
ELECTIVE		General Education Elective	---	3
ELECTIVE		General Education Elective	---	3
COPR	3011	Contemporary Problems	---	3
HUMA	3006	World History II	---	3
MANA	4014	Seminar and Internship in Administration	MANA 1207 MANA 4004 MATH 1206 STAT 3103	3

**Grand total of Bachelor of Business Administration: 120 credits and 1,935 hours**

\*\* The student does not necessarily have to follow the order of the suggested courses, but the order helps the student to complete their degree in the stipulated time. The student should be aware of taking the courses that have requirements in an order that allows them to continue taking the other courses without problems. The courses without requirements do not have a specific order. The students can enroll in them in the semester they are offered.

## **MINIMUM GRADING POLICY**

Students enrolled in the Bachelor of Business Administration will comply with the following:

1. Obtain, at least, a grade of **C** to pass the following courses:

ACCO 2200	ACCO 4001	COMP 1205	COPR 3011
ECON 1204	ENGL 2206	ENTR 1001	FINE 4002
MANA 1207	MANA 2020	MANA 2303	MANA 2403
MANA 2413	MANA 3002	MANA 4000	MANA 4004
MANA 4005	MANA 4006	MANA 4009	MANA 4011
MANA 4012	MANA 4013	MARK 1301	MATH 1206
SCIE 4001	SCIE 4002	SECU 1040	SPAN 2207
STAT 3103			

2. Obtain at least a grade of **B** to pass the MANA 4014 course (Seminar and Internship in Administration).
3. Although a minimum qualification of **C** to pass the Professional Education courses, the student must ensure that they meet the minimum required average of 2.25 for this line. If he does not comply, he must repeat courses until he reaches the minimum average required to graduate.

## **ASSOCIATE DEGREE IN BUSINESS ADMINISTRATION**

**Credits: 72**

**Duration: One year and eight months**

**Location: Caguas Main**

**Study Modality: Face to Face**

University level program with the main purpose of preparing people in the administration area in a short time. The curricular content reflects a broad spectrum of administration, within which courses in both general management and human resources are contained, among others. The program consists of 72 credits. It introduces the student to core disciplines of administration such as management, human resources management, marketing, economics, accounting, occupational health and safety, and statistics, among others. It provides the student with the administrative knowledge and skills necessary to enter the world of work, recognizing problems that may arise and providing viable alternatives consistent with a dynamic organizational environment.

### **ADDITIONAL PROGRAM REQUIREMENT:**

- a. Orientation with the Director of the School of Administration

### **GRADUATION REQUIREMENTS:**

All those students who have fulfilled the requirements of their study program and, in addition, have:

Achieved a minimum GPA of 2.25 in Professional Education courses.

1. Achieved a minimum GPA of 2.00.
2. Approved at the university for at least 24 credits, 12 of them in Professional Education.

**CURRICULAR STRUCTURE**  
**GENERAL EDUCATION COURSES**

**Prescribed: 18 credits**

COURSES	CODE	COURSE NAME	CONTACT HOURS	CREDITS
ENGL	1101	Basic English I	60	3
ENGL	1102	Basic English II	45	3
HUMA	3005	World History I	45	3
SEMI	1105	University Success and Professional Seminar	45	3
SPAN	1101	Basic Spanish I	60	3
SPAN	1102	Basic Spanish II	45	3

**Sub - total:** **300 hours** **18 credits**

**RELATED COURSES**

**Prescribed: 3 credits**

COURSES	CODE	COURSE NAME	CONTACT HOURS	CREDITS
COMP	1205	Introduction to Computers	60	3

**Sub - total:** **60 hours** **3 credits**

**PROFESSIONAL EDUCATION COURSES**

**Prescribed: 39 credits**

COURSES	CODE	COURSE NAME	CONTACT HOURS	CREDITS
ACCO	2200	Administrative Accounting	60	3
ACCO	4001	Managerial Accounting	45	3
ECON	1204	Principles of Economics	45	3
ENTR	1001	Entrepreneurship	45	3
MANA	1207	Principles of Administration	45	3
MANA	2303	Legal Aspects and Ethics	45	3
MANA	2403	Human Resources Management	45	3
MANA	3002	Effective Supervision	45	3
MANA	4005	Customer Service	45	3
MANA	4006	Strategic Planning	45	3
MARK	1301	Marketing Principles	45	3
MATH	1206	Business Mathematics	60	3
STAT	3103	Statistics	45	3

**Sub-total:** **615 hours** **39 credits**

**PROFESSIONAL EDUCATION COURSES (Vocational Technician)**

**Prescribed: 12 credits**

COURSES	CODE	COURSE NAME	CONTACT HOURS	CREDITS
ENGL	2206	Commercial Writing in English	45	3
MANA	2413	Integrated Systems Management	45	3
MANNA	4000	Effective Communication for Managers	45	3
SECU	1040	OSHA Safety and Regulations	45	3

**Sub - total:** **180 hours 12 credits**

**ASSOCIATE DEGREE IN BUSINESS ADMINISTRATION**  
**SUGGESTED STUDY PROGRAM \*\***

COURSES	CODE	COURSE NAME	PREREQUISITES	CREDITS
<b>FIRST TERM: 15 CREDITS</b>				
COMP	1205	Introduction to Computers	-----	3
ENTR	1001	Entrepreneurship	-----	3
MANA	1207	Principles of Management	-----	3
MARK	1301	Marketing Principles	-----	3
SEMI	1105	College Success and Professional Seminar	-----	3
<b>SECOND TERM: 15 CREDITS</b>				
ACCO	2200	Administrative Accounting	-----	3
ECON	1204	Principles of Economics	-----	3
MANA	2303	Legal Aspects and Ethics	-----	3
MANA	2403	Human Resources Management	MANA 1207	3
MATH	1206	Business Mathematics	-----	3
<b>THIRD TERM: 15 CREDITS</b>				
ENGL	1101	Basic English I	-----	3
MANA	2413	Integrated Systems Management	COMP 1205	3
MANA	3002	Effective Supervision	MANA 1207 MANA 2403	3
MANA	4005	Customer Service	MARK 1301	3
SECU	1040	OSHA Safety and Regulations	MANA 1207 MANA2403	3
<b>FOURTH TERM: 15 CREDITS</b>				
ENGL	1102	Basic English II	ENGL 1101	3
HUMA	3005	World History I	-----	3
MANA	4000	Effective Communication for Managers	MANA 1207 MANA 2403	3
SPAN	1101	Basic Spanish I	-----	3
STAT	3103	Statistics	-----	3
<b>FIFTH TERM: 12 CREDITS</b>				
ACCO	4001	Management Accounting	ACCO 2200	3
ENGL	2206	Business Writing in English	ENGL 1102	3
MANA	4006	Strategic Planning	MANA 1207 MATH 1206	3
SPAN	1102 *	Basic Spanish II	SPAN 1101	3

**Grand Total of Associate Degree in Business Administration: 72 credits and 1,155 hours**

\*\* The student does not necessarily have to follow the order of the suggested courses, but the order helps the student to complete their degree in the stipulated time. The student should be aware of taking the courses that have requirements in an order that allows them to continue taking the other courses without problems. The courses without requirements do not have a specific order. The students can enroll in them, in the semester they are offered.

**MINIMUM GRADING POLICY**

Students enrolled in the Associate Degree in Business Administration will comply with the following:

1. Obtain, at least, a grade of **C** to pass the following courses:

ACCO 2200	ACCO 4001	COMP 1205	ECON 1204
ENGL 2206	ENTR 1001	MANA 1207	MANA 2303
MANA 2403	MANA 2413	MANA 3002	MANA 4000
MANA 4005	MANA 4006	MARK 1301	MATH 1206
SECU 1040	STAT 3103		

2. Although a minimum qualification of **C** To pass the Professional Education courses, the student must ensure that they meet the minimum required average of **2.25** for this line. If you do not comply, you must repeat.

## **SCHOOL OF TECHNOLOGY**

## **SCHOOL OF TECHNOLOGY**

### **DESCRIPTION OF THE SCHOOL OF TECHNOLOGY**

The purpose of the School of Technology is to prepare professionals in the areas of technology. As part of the academic proposal the following programs are offered: Bachelor's Degrees in: Information Technology, Networking and Security; Associate Degree in Cyber Security. We also have a Certificate as a Computer Repair Technician.

The organizational structure of the School of Technology is composed of a dean and a coordinator for the undergraduate programs. The program coordinators oversee the quality in the development, implementation and evaluation of the teaching and learning process.

### **MISSION**

To form an integral human being capable of performing optimally in technical and business fields with the highest sense of ethics, professionalism, and responsibility. We will achieve this by developing leaders with values and imparting state-of-the-art knowledge, skills and competencies adapted to the relevant academic level.

### **VISION**

To be recognized as the school that best contributes to the continuous development of human capital at the business and technological level in the academic, professional and research fields.

### **PHILOSOPHY**

The school of technology faithfully believes in the formation of leaders and professionals capable of integrating the basic and fundamental knowledge of technology with the principles related to information access and globalization.

Through the acquisition of facilitated knowledge, students in our programs will significantly influence the management and understanding of various scenarios (administrative and technological) at the individual, group, and organizational levels with the purpose of improving the operational and financial results of organizations.

## **GOALS**

1. To develop in the student the knowledge, skills and competencies in the areas related to technology.
2. To ensure in the student an effective application of the fundamental concepts and principles in their area of specialty in order to perform responsibly and successfully in their professional life.
3. To promote the formation of a human being with a high sense of social and ethical responsibility.
4. Contribute to brand recognition through our programs; providing cutting-edge solutions to our communities through the knowledge generated in continuously evolving teaching environments.
5. To ensure a culture of evaluation and continuous improvement in the administrative and academic areas.

**BACHELOR'S DEGREE IN INFORMATION TECHNOLOGY, NETWORKS, AND SECURITY****CIP Code: 11.1001****SOC Code: 11-3021, 15-1212, 15-1231, 15-1241, 15-1244****Credits: 120 credits****Duration: 144 weeks (Three years)****Location: Caguas****Modality of Study: On ground and Online (Caguas)**

The bachelor's degree in Information Technology, Networks, and Security will prepare students for the processes of installation, diagnosis, and repair of personal computers and their devices, in accordance with the demands of the current market. Students will apply knowledge and skills for the design and configuration of a telecommunications network infrastructure in an organization. Additionally, they will develop competencies in the maintenance and diagnosis of problems in networks for the optimization of communication systems. They will apply offensive and defensive security techniques, as well as forensic analysis, for the development of optimal security systems that comply with relevant regulations and requirements.

They will also identify threats that a company may face to conduct risk analysis and vulnerability testing through ethical hacking techniques, with the aim of preventing and mitigating risks and restoring information systems. As part of the program, students will take review courses for the CompTIA A+, Network+, and Security+ certifications. Graduates of this program will be able to work as computer support technicians, information technology (IT) specialists, or information systems managers.

**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.

**Additional program requirement:**

1. Orientation with the Academic Coordinator

**Graduation Requirements:**

1. Have completed at least 120 credits, including those taken at CCU and those transferred from other institutions or programs.
2. Have achieved a minimum average of 2.50 in the Concentration courses.
3. Have achieved a minimum GPA of 2.25.
4. Of the 24 credits that must be approved at the Institution, 12 will be in the Concentration area.

## CURRICULAR STRUCTURE

### GENERAL EDUCATION COURSES

**Prescribed: 40 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
BISC	1010	Biological Sciences	45	3
ENGL	1010	Basic English I	45	3
ENGL	1020	Basic English II	45	3
ENGL	2050	Conversational English	45	3
HUMA	1010	Humanities I	45	3
HUMA	1020	Humanities II	45	3
ITTE	1031L	Computer Literacy and Laboratory	60	3
MATH	1010	Basic Mathematics	45	3
SEMI	1010	Transition to University Life and Professional Training Seminar	15	1
SOSC	1010	Social Sciences I	45	3
SOSC	1020	Social Sciences II	45	3
SPAN	1010	Basic Spanish I	45	3
SPAN	1020	Basic Spanish II	45	3
SPAN	2040	Writing and Composition	45	3

**Sub-Total:** 615 hours 40 credits

### CORE COURSES

**Prescribed: 51 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
CISE	1000L	Fundamentals of Cybersecurity and Laboratory	60	3
CISE	1050	Information Systems Auditing	45	3
COMP	1000L	Components of Personal Computers and Laboratory	60	3
COMP	1050L	Installation of Servers and Laboratory	60	3
COMP	2000L	Diagnosis and Repair of Computers and Laboratory I	60	3
COMP	2010L	Diagnosis and Repair of Computers and Laboratory II	60	3
COMP	2070	CompTIA A+ Certification Exam Review	45	3
COMP	2080L	Fundamentals of Cloud Computing and Laboratory	60	3
COMP	3050	CompTIA Security+ Certification Exam Review	45	3
INTE	1040	Information Technology Project Management	45	3
INTE	1100L	Open Source Operating Systems and Laboratory	60	3
INTE	1200L	Fundamentals of Operating Systems and Laboratory	60	3
INTE	2440L	Network Fundamentals and Laboratory	60	3
INTE	2470L	User Support Technician and Laboratory	60	3
MATH	2050	Applied Mathematics	45	3

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
PROG	1035L	Introduction to Computer Programming Logic and Laboratory	60	3
PROG	2400L	Scripting Languages and Laboratory	60	3
PROG	3360L	Python Programming and Laboratory	60	3

**Sub-total:**

**960 hours 51 credits**

### CONCENTRATION COURSES

**Prescribed: 29 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
CISE	2000L	Offensive and Defensive Security and Laboratory	60	3
CISE	3000L	Ethical Hacking and Laboratory	75	4
CISE	3050L	Forensic Analysis and Laboratory	60	3
COMP	2050L	Design and Configuration of Servers and Laboratory	60	3
COMP	3000	CompTIA Network <sup>+</sup> Certification Exam Review	45	3
COMP	3050	CompTIA Security <sup>+</sup> Certification Exam Review	45	3
COMP	3070L	Server Administration and Laboratory	60	3
INTE	2770L	Diagnosis and Maintenance of Networks and Laboratory	60	3
INTE	4000L	Information Technology Seminar and Laboratory	75	4

**Sub-total:**

**540 hours 29 credits**

The curricular structure of the bachelor's degree in Information Technology, Networks, and Security includes the following components:

COMPONENT	HOURS	CREDITS
General Education Courses	615	40
Core Courses	960	51
Concentration Courses	540	29
<b>Total</b>	<b>2,115</b>	<b>120</b>

**BACHELOR'S DEGREE IN INFORMATION TECHNOLOGY, NETWORKS, AND SECURITY**

**CURRICULUM: JUNE 2024**

**CURRICULUM SEQUENCE**

COURSE	CODE	COURSE NAME	PRE-REQUISITES	CREDITS
<b>FIRST TERM: 15 CREDITS</b>				
COMP	1000L	Components of Personal Computers and Laboratory	----	3
SPAN	1010	Basic Spanish I	----	3
MATH	1010	Basic Mathematics	----	3
SOSC	1010	Social Sciences I	----	3
ITTE	1031L	Computer Literacy and Laboratory	----	3
<b>SECOND TERM: 13 CREDITS</b>				
SPAN	1020	Basic Spanish II	ENGL 1010	3
INTE	1100L	Open Source Operating Systems and Laboratory	COMP 1000L	3
SEMI	1010	Transition to University Life and Professional Training Seminar	----	1
PROG	1035L	Introduction to Computer Programming Logic and Laboratory	----	3
INTE	1200L	Fundamentals of Operating Systems and Laboratory	----	3
<b>THIRD TERM: 12 CREDITS</b>				
ENGL	1010	Basic English I	----	3
INTE	2440L	Network Fundamentals and Laboratory	INTE 1100L	3
MATH	2050	Applied Mathematics	MATH 1010	3
BISC	1010	Biological Sciences	----	3
<b>FOURTH TERM: 12 CREDITS</b>				
ENGL	1020	Basic English II	ENGL 1010	3
COMP	1050L	Installation of Servers and Laboratory	COMP 1000L INTE 1100L	3
CISE	1000L	Fundamentals of Cybersecurity and Laboratory	----	3
COMP	2000L	Diagnosis and Repair of Computers and Laboratory I	COMP 1000L	3

COURSE	CODE	COURSE NAME	PRE-REQUISITES	CREDITS
<b>FIFTH TERM: 15 CREDITS</b>				
COMP	2010L	Diagnosis and Repair of Computers and Laboratory II	COMP 2000L	3
ENGL	2050	Conversational English	ENGL 1020	3
INTE	2470L	User Support Technician and Laboratory	COMP 1000L	3
HUMA	1010	Humanities I	-----	3
COMP	2050L	Design and Configuration of Servers and Laboratory	COMP 1050L	3
<b>SIXTH TERM: 12 CRÉDITOS</b>				
PROG	2400L	Scripting Languages and Laboratory	PROG 1035L	3
SPAN	2040	Writing and Composition	SPAN 1020	3
CISE	1050	Information Systems Auditing	CISE 1000L	3
COMP	2070	CompTIA A+ Certification Exam Review	INTE 2470L	3
<b>SEVENTH TERM: 15 CREDITS</b>				
INTE	2770L	Diagnosis and Maintenance of Networks and Laboratory	INTE 2440L	3
SOSC	1020	Social Sciences II	SOSC 1010	3
COMP	2080L	Fundamentals of Cloud Computing and Laboratory	COMP 1050L INTE 2440L	3
CISE	2000L	Offensive and Defensive Security and Laboratory	CISE 1000L	3
COMP	3000	CompTIA Network+ Certification Exam Review	INTE 2770L	3
<b>EIGHTH TERM: 13 CREDITS</b>				
CISE	3000L	Ethical Hacking and Laboratory	CISE 1050 CISE 2000L	4
PROG	3360L	Python Programming and Laboratory	PROG 1035L	3
CISE	3050L	Forensic Analysis and Laboratory	CISE 1000L CISE 1050 CISE 2000L	3
HUMA	1020	Humanities II	HUMA 1010	3

COURSE	CODE	COURSE NAME	PRE-REQUISITES	CREDITS
<b>NINTH TERM: 13 CREDITS</b>				
COMP	3050	CompTIA Security+ Certification Exam Review	CISE 1050 CISE 2000L	3
COMP	3070L	Server Administration and Laboratory	COMP 2050L	3
INTE	1040	Information Technology Project Management	-----	3
INTE	4000L	Information Technology Seminar and Laboratory	CISE 2000L CISE 3000L CISE 3050L COMP 2050L COMP 3000 COMP 3070L INTE 2770L	4

**Grand Total of the bachelor's degree in Information Technology, Networks, and Security: 120 credits and 2,115 hours**

\*\* The student does not necessarily have to follow the suggested course order, but the order helps them complete their degree in the stipulated time. The student must be aware of taking the courses that have prerequisites in an order that allows them to continue taking the other courses without problems. Courses without prerequisites have no specific order. The student can register for them in the term that they are offered.

#### **MINIMUM GRADING POLICY**

Students enrolled in the bachelor's degree in Information Technology, Networks, and Security must obtain at least a grade of C upon passing all Core and Concentration courses, except the Information Technology Seminar and Laboratory (INTE 4000L) which must be passed with B or more.

**ASSOCIATE DEGREE IN CYBERSECURITY****CIP Code: 43.0403****SOC Code: 15-1212****Credits: 71 credits****Duration: 80 weeks (1 year and 8 months)****Location: Caguas****Modality of Study: On ground and Online**

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. Additionally, students will demonstrate mastery of the fundamentals of security, confidentiality, integrity, and availability of information systems. In the cybersecurity courses of this academic program, students will be able to apply offensive and defensive security techniques, as well as analysis techniques, for the development of optimal security systems that comply with the regulations and requirements of information systems. They will also identify the attack threats that a company faces. Furthermore, they will perform risk analysis and vulnerability testing in order to monitor and respond to security incidents. As part of the program, students will have the opportunity to take a review course for the CompTIA Security+ certification. Graduates of this program will be able to work as IT support technicians and information security specialists, among other roles.

**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.

**Additional program requirement:**

1. Orientation with the Academic Coordinator

**Graduation Requirements:**

1. Have completed 36 credits between those taken at Columbia Central University and those transferred from other institutions or programs.
2. Have achieved a minimum GPA of 2.00 or more.

## CURRICULAR STRUCTURE

### GENERAL EDUCATION COURSES

**Prescribed: 25 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
BISC	1010	Biological Sciences	45	3
ENGL	1010	Basic English I	45	3
ENGL	1020	Basic English II	45	3
ITTE	1031L	Computer Literacy and Laboratory	60	3
MATH	1010	Basic Mathematics	45	3
SOSC	1010	Social Sciences I	45	3
SPAN	1010	Basic Spanish I	45	3
SPAN	1020	Basic Spanish II	45	3
SEMI	1010	Transition to University Life and Professional Training Seminar	15	1

**Sub-Total:** 390 hours 25 credits

### CONCENTRATION COURSES

**Prescribed: 46 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
CISE	1000L	Fundamentals of Cybersecurity and Laboratory	60	3
CISE	1050	Information Systems Auditing	45	3
CISE	2000L	Offensive and Defensive Security and Laboratory	60	3
CISE	3000L	Ethical Hacking and Laboratory	75	4
COMP	1000L	Components of Personal Computers and Laboratory	60	3
COMP	1050L	Installation of Servers and Laboratory	60	3
COMP	2080L	Fundamentals of Cloud Computing and Laboratory	60	3
COMP	3050	ComptIA Security <sup>+</sup> Certification Exam Review	45	3
INTE	2440L	Network Fundamentals and Laboratory	60	3
INTE	1100L	Open Source Operating Systems and Laboratory	60	3
INTE	1200L	Fundamentals of Operating Systems and Laboratory	60	3
INTE	2470L	User Support Technician and Laboratory	60	3
MATH	2050	Applied Mathematics	45	3
PROG	1035L	Introduction to Computer Programming Logic and Laboratory	60	3
PROG	2400L	Scripting Languages and Laboratory	60	3

**Sub-total:** 870 hours 46 credits

The curricular structure of the associate degree in Cybersecurity includes the following components:

COMPONENT	HOURS	CREDITS
General Education Courses	390	25
Concentration Courses	870	46
<b>Total</b>	<b>1,260</b>	<b>71</b>

## ASSOCIATE DEGREE IN CYBERSECURITY

### CURRICULUM SEQUENCE\*\*

COURSE	CODE	COURSE NAME	PRE REQUISITES	CREDITS
<b>FIRST TERM: 15 CREDITS</b>				
COMP	1000L	Components of Personal Computers and Laboratory	----	3
SPAN	1010	Basic Spanish I	----	3
MATH	1010	Basic Mathematics	----	3
SOSC	1010	Social Sciences I	----	3
ITTE	1031L	Computer Literacy and Laboratory	----	3
<b>SECOND TERM: 13 CREDITS</b>				
SPAN	1020	Basic Spanish II	ENGL 1010	3
INTE	1100L	Open Source Operating Systems and Laboratory	COMP 1000L	3
SEMI	1010	Transition to University Life and Professional Training Seminar	----	1
CISE	1000L	Fundamentals of Cybersecurity and Laboratory	----	3
INTE	1200L	Fundamentals of Operating Systems and Laboratory	----	3
<b>THIRD TERM: 15 CREDITS</b>				
ENGL	1010	Basic English I	----	3
INTE	2440L	Network Fundamentals and Laboratory	INTE 1100L	3
CISE	1050	Information Systems Auditing	CISE 1000L	3
PROG	1035L	Introduction to Computer Programming Logic and Laboratory	----	3
BISC	1010	Biological Sciences	----	3
<b>FOURTH TERM: 15 CREDITS</b>				
ENGL	1020	Basic English II	ENGL 1010	3
COMP	1050L	Installation of Servers and Laboratory	COMP 1000L INTE 1100L	3
MATH	2050	Applied Mathematics	MATH 1010	3
CISE	2000L	Offensive and Defensive Security and Laboratory	CISE 1000L	3
PROG	2400L	Scripting Languages and Laboratory	PROG 1035L	3

COURSE	CODE	COURSE NAME	PRE REQUISITES	CREDITS
<b>FIFTH TERM: 13 CREDITS</b>				
COMP	2080L	Fundamentals of Cloud Computing and Laboratory	COMP 1050L INTE 2440L	3
INTE	2470L	User Support Technician and Laboratory	COMP 1000L	3
COMP	3050	CompTIA Security+ Certification Exam Review	CISE 1050 CISE 2000L	3
CISE	3000L	Ethical Hacking and Laboratory	CISE 1050 CISE 2000L	4

**Grand Total of the associate degree in Cybersecurity: 71 credits and 1,260 hours**

\*\* The student does not necessarily have to follow the suggested course order, but the order helps them complete their degree in the stipulated time. The student must be aware of taking the courses that have prerequisites in an order that allows them to continue taking the other courses without problems. Courses without prerequisites have no specific order. The student can register for them in the term that they are offered.

#### **MINIMUM GRADING POLICY**

Students enrolled in the associate degree in Cybersecurity must obtain at least a grade of C when passing all Concentration courses.

**ASSOCIATE DEGREE IN WEB APPLICATION DEVELOPMENT****CIP Code: 11.1008****SOC Code: 15-1254, 15-1255****Credits: 74 credits****Duration: 96 weeks (2 years)****Location: Caguas****Modality of Study: On ground and Online**

The Associate Degree in Web Application Development will prepare students with the knowledge and practical skills necessary for developing web application logic. Students will employ concepts related to user interface (UI) along with skills for creating and designing web pages, and for developing attractive and functional interfaces. Likewise, they will implement processes related to the development, operation, and security of web applications, using front- end programming languages such as HTML (HyperText Markup Language), CSS (Cascading Style Sheets), and JavaScript, which are fundamental elements for creating the structure, design, and interactivity of a web page. Additionally, they will develop competencies in the management of data structures.

They will apply knowledge related to the management of personal computer components, as well as the installation and configuration of servers to meet business needs. Similarly, they will acquire skills to provide technical support to users in their daily computer needs. Graduates of this program will be able to work as user support technicians, front-end developers, and user interface designers (UX designers), among other roles.

**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.

Additional program requirement:

- Orientation with the Academic Coordinator

## CURRICULAR STRUCTURE

### GENERAL EDUCATION COURSES

Prescribed: 25 credits

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
BISC	1010	Biological Sciences	10	3
ENGL	1010	Basic English I	45	3
ENGL	1020	Basic English II	45	3
ITTE	1031L	Computer Literacy and Laboratory	60	3
MATH	1010	Basic Mathematics	45	3
SEMI	1010	Transition to University Life and Professional Training Seminar	15	1
SOSC	1010	Social Sciences I	45	3
SPAN	1010	Basic Spanish I	45	3
SPAN	1020	Basic Spanish II	45	3

**Sub-total:**

**390 hours**

**25 credits**

### CONCENTRATION COURSES

Prescribed: 49 credits

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
CISE	1000L	Fundamentals of Cybersecurity and Laboratory	60	3
COMP	1000L	Components of Personal Computers and Laboratory	60	3
COMP	1050L	Installation of Servers and Laboratory	60	3
COMP	2080L	Fundamentals of Cloud Computing and Laboratory	60	3
INTE	1100L	Open-Source Operating Systems and Laboratory	60	3
INTE	1200L	Fundamentals of Operating Systems and Laboratory	60	3
INTE	2440L	Network Fundamentals and Laboratory	60	3
INTE	2470L	User Support Technician and Laboratory	60	3
ITSA	2000L	Introduction to Back-End Development and Laboratory	75	4
MATH	2050	Applied Mathematics	45	3
PROG	1035L	Introduction to Computer Programming Logic and Laboratory	60	3
PROG	2400L	Scripting Languages and Laboratory	60	3
WADE	1000L	Front End Technologies and User Interface (UI) and Laboratory	60	3

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
WADE	1050L	Web Page Creation and Design and Laboratory	60	3
WADE	2000L	Content Management Systems (CMS) and Laboratory	60	3
WADE	2050L	Data Structures and Laboratory	60	3
<b>Sub-total:</b>			<b>960 hours</b>	<b>49 credits</b>

The curricular structure of the Associate Degree in Web Application Development includes the following components:

COMPONENT	HOURS	CREDITS
General Education Courses	390	25
Concentration Courses	960	49
<b>Total</b>	<b>1,350</b>	<b>74</b>

**ASSOCIATE DEGREE IN WEB APPLICATION DEVELOPMENT**

**CURRICULUM: AUGUST 2024**

**CURRICULUM SEQUENCE\*\***

COURSE	CODE	COURSE NAME	PRE-REQUISITES	CREDITS
<b>FIRST TERM: 12 CREDITS</b>				
COMP	1000L	Components of Personal Computers and Laboratory	-----	3
SPAN	1010	Basic Spanish I	-----	3
MATH	1010	Basic Mathematics	-----	3
ITTE	1031L	Computer Literacy and Laboratory	-----	3
<b>SECOND TERM: 13 CREDITS</b>				
SPAN	1020	Basic Spanish II	ENGL 1010	3
INTE	1100L	Open Source Operating Systems and Laboratory	COMP 1000L	3
SEMI	1010	Transition To University Life and Professional Training Seminar	-----	1
PROG	1035L	Introduction to Computer Programming Logic and Laboratory	-----	3
INTE	1200L	Fundamentals Of Operating Systems and Laboratory	-----	3
<b>THIRD TERM: 12 CREDITS</b>				
SOSC	1010	Social Sciences I	-----	3
INTE	2440L	Network Fundamentals and Laboratory	INTE 1100L	3
WADE	1000L	Front-End Technologies and User Interface (UI) And Laboratory	PROG 1035L	3
CISE	1000L	Fundamentals Of Cybersecurity and Laboratory	-----	3
<b>FOURTH TERM: 12 CREDITS</b>				
ENGL	1010	Basic English I	-----	3
COMP	1050L	Installation Of Servers and Laboratory	COMP 1000L INTE 1100L	3
WADE	1050L	Web Page Creation and Design and Laboratory	WADE 1000L	3
MATH	2050	Applied Mathematics	-----	3

COURSE	CODE	COURSE NAME	PRE-REQUISITES	CREDITS
<b>FIFTH TERM: 12 CREDITS</b>				
ENGL	1020	Basic English II	ENGL 1010	3
PROG	2400L	Scripting Languages and Laboratory	PROG 1035L	3
BISC	1010	Biological Sciences	-----	3
WADE	2000L	Content Management Systems (CMS) and Laboratory	WADE 1050L	3
<b>SIXTH TERM: 13 CREDITS</b>				
COMP	2080L	Fundamentals of Cloud Computing and Laboratory	COMP 1050L INTE 2440L	3
WADE	2050L	Data Structures and Laboratory	PROG 1035L	3
INTE	2470L	User Support Technician and Laboratory	COMP 1000L	3
ITSA	2000L	Introduction To Back-End Development and Laboratory	WADE 2050L	4

**Grand Total of the associate degree in Web Application Development: 74 credits and 1,350 hours**

\*\*The student does not necessarily have to follow the suggested course order, but the order helps them complete their degree in the stipulated time. The student must be aware of taking the courses that have prerequisites in an order that allows them to continue taking the other courses without problems. Courses without prerequisites have no specific order. The student can register for them in the term that they are offered.

#### **MINIMUM GRADING POLICY**

Students enrolled in the associate degree in Web Application Development must obtain at least a grade of C (70% or more) upon passing all Concentration courses.

**VOCATIONAL TECHNICAL CERTIFICATE IN TECHNICAL  
SUPPORT**

**CIP Code: 11.1006**

**SOC Code: 11-1232**

**Credits: 36 credits Duration:**

**48 weeks (One year)**

**Location: Caguas**

**Modality of Study: On ground and Online**

The Certificate in Technical Support will prepare students with the skills necessary for the installation, configuration, and maintenance of computer systems. Students will gain knowledge about the internal components of personal computers, networks, and operating systems. Through hands-on labs, they will acquire skills in computer diagnostic and repair methodologies for incident resolution. By completing the program's courses, students will be comprehensively prepared for the CompTIA A+ certification exam, a recognized industry standard. Graduates of this program will be able to work as IT support technicians, computer diagnostic and repair specialists, network technicians, and more.

**PROGRAM COMPETENCIES**

1. Apply theoretical and practical knowledge of computer installation, configuration, diagnosis, and repair to solve technical problems in business environments.
2. Provide effective technical support to information systems users in their daily computing needs.
3. Demonstrate effective communication skills, both oral and written, to convey technical information in a clear, concise, and understandable manner to diverse audiences, such as users, colleagues, and superiors.
4. Examine computers and networks logically and critically to identify and generate creative solutions to problems related to hardware, software, and security.
5. Integrate technological tools into collaborative processes for the generation of innovative solutions in the field of information technology.

6. Demonstrate ethical and moral conduct in the handling and protection of users' confidential information.
7. Value cultural, generational, and gender diversity as well as diversity of abilities in technological settings, fostering an inclusive and discrimination-free environment.

**Additional program requirement:**

1. Orientation with the Academic Coordinator

**CURRICULAR STRUCTURE**  
**CONCENTRATION COURSES**

**Prescribed: 36 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
CISE	1000L	Fundamentals of Cybersecurity and Laboratory	60	3
COMP	1000L	Components of Personal Computers and Laboratory	60	3
COMP	1050L	Installation of Servers and Laboratory	60	3
COMP	2000L	Diagnosis and Repair of Computers and Laboratory I	60	3
COMP	2010L	Diagnosis and Repair of Computers and Laboratory II	60	3
COMP	2070	CompTIA A+ Certification Exam Review	45	3
ITTE	1031L	Computer Literacy and Laboratory	60	3
INTE	1100L	Open Source Operating Systems and Laboratory	60	3
INTE	1200L	Fundamentals of Operating Systems and Laboratory	60	3
INTE	2440L	Network Fundamentals and Laboratory	60	3
INTE	2470L	User Support Technician and Laboratory	60	3
MATH	2050	Applied Mathematics	45	3

**Sub-total:** **690 hours** **36 credits**

**CERTIFICATE IN TECHNICAL SUPPORT****CURRICULUM: AUGUST 2024****CURRICULUM SEQUENCE\*\***

COURSE	CODE	COURSE NAME	PRE REQUISITES	CREDITS
<b>FIRST TERM: 12 CREDITS</b>				
ITTE	1031L	Computer Literacy and Laboratory	-----	3
COMP	1000L	Components of Personal Computers and Laboratory	-----	3
INTE	1100L	Open Source Operating Systems and Laboratory	COMP 1000L	3
MATH	2050	Applied Mathematics	MATH 1010	3
<b>SECOND TERM: 12 CREDITS</b>				
INTE	1200L	Fundamentals of Operating Systems and Laboratory	-----	3
INTE	2440L	Network Fundamentals and Laboratory	INTE 1100L	3
COMP	1050L	Installation of Servers and Laboratory	COMP 1000L INTE 1100L	3
COMP	2000L	Diagnosis and Repair of Computers and Laboratory I	COMP 1000L	3
<b>THIRD TERM: 12 CREDITS</b>				
CISE	1000L	Fundamentals of Cybersecurity and Laboratory	-----	3
COMP	2010L	Diagnosis and Repair of Computers and Laboratory II	COMP 2000L	3
INTE	2470L	User Support Technician and Laboratory	COMP 1000L	3
COMP	2070	CompTIA A+ Certification Exam Review	INTE 2470L	3

**Grand Total of the Certificate in Technical Support: 36 credits and 690 hours**

\*\* The student does not necessarily have to follow the suggested course order, but the order helps them complete their degree in the stipulated time. The student must be aware of taking the courses that have prerequisites in an order that allows them to continue taking the other courses without problems. Courses without prerequisites have no specific order. The student can register for them in the term that they are offered.

**MINIMUM GRADING POLICY**

Students enrolled in the certificate in Technical Support must obtain at least a grade of C (70%) upon passing all Concentration courses.

## **VOCATIONAL TECHNICAL CERTIFICATE IN COMPUTER REPAIR TECHNICIAN**

**Credits: 36**

**Duration: One year**

**Location: Caguas**

**Study Modality: Face to Face**

This program is designed to train and graduate technicians with the knowledge, skills, and aptitudes necessary to perform successfully in the field of computers repairs and electronic devices (personal computers, tablets, cell phones, and video game consoles). The graduate will be able to assemble, configure, maintain, and repair electronic devices. Additionally, the program introduces aspects related to the design, installation, and maintenance of networks. While studying, the student will be able to challenge the CompTIA A + certification. It consists of 36 credits and can be completed in one year.

### **ADDITIONAL PROGRAM REQUIREMENT:**

1. Orientation with the Academic Coordinator

### **GRADUATION REQUIREMENTS:**

1. Have achieved a minimum GPA of 2.00 or more.

## CURRICULAR STRUCTURE

**Prescribed: 36 credits**

COURSES	CODE	COURSE NAME	CONTACT HOURS	CREDITS
ENGL	1101	Basic English I	60	3
ENGL	1102	Basic English II	45	3
COMP	1205	Introduction to Computers	60	3
COMP	1503	Design and Assembly of Personal Computers	60	3
COMP	1504	Fundamentals of Operating Systems	60	3
COMP	1514	Components of Personal Computers	60	3
COMP	2407	Computer Security Implementation	60	3
COMP	2418	Network Fundamentals	75	4
COMP	2515	Diagnostic and Repair of Electronic Devices	120	6
COMP	2516	Review for the CompTIA A + Certification Exam	75	4
COMP	2517	Printers	15	1

**Sub - total:**

**690 hours**

**36 credits**

## CERTIFICATE IN COMPUTER REPAIR TECHNICIAN

### SUGGESTED PROGRAM OF STUDIES \*\*

COURSES	CODE	COURSE NAME	PRE-REQUIREMENTS	CREDITS
<b>FIRST TERM: 12 CREDITS</b>				
COMP	1205	Introduction to Computers	---	3
COMP	1503	Design and Assembly of Personal Computers	---	3
COMP	1514	Components of Personal Computers	---	3
ENGL	1101	Basic English I	---	3
<b>SECOND TERM: 13 CREDITS</b>				
COMP	1504	Fundamentals of Operating Systems	---	3
COMP	2515	Diagnostic and Repair of Electronic Devices	COMP 1205 COMP 1514	6
COMP	2517	Printers	COMP 1205	1
ENGL	1102	Basic English II	ENGL 1101	3
<b>THIRD TERM: 11 CREDITS</b>				
COMP	2407	Computer Security Implementation	COMP 1205	3
COMP	2418	Fundamentals of Networking	COMP 1504	4
COMP	2516	Review for the CompTIA A + Certification Exam	COMP 1205 COMP 1503 COMP 1504 COMP 1514 COMP 2515 COMP 2517 ENGL 1101 ENGL 1102	4

**Grand total of Certificate in Computer Repair Technician: 36 credits**

\*\* The student does not necessarily have to follow the order of the suggested courses, but the order helps the student to complete their degree in the stipulated time. The student should be aware of taking the courses that have requirements in an order that allows them to continue taking the other courses without problems. The courses without requirements do not have a specific order. The students can enroll in them, in the semester they are offered.

### MINIMUM GRADING POLICY

Students enrolled in the Certificate in Computer Repair Technician must obtain a minimum grade of C (70% or higher) to pass all courses in the program.

## **SCHOOL OF HEALTH SCIENCES**

## **SCHOOL OF HEALTH SCIENCES**

### **DESCRIPTION OF THE SCHOOL**

The School of Health Sciences provides students with study alternatives that allow them to build knowledge through varied experiences, which will enrich their academic, personal, and professional life. The academic programs attached to the school combine theoretical content with clinical experiences in various health scenarios, which provide the opportunity to develop the competencies of the profession. The school aspires to be recognized as an academic and community leader in the area of health promotion and disease prevention for the Puerto Rican community, as well as abroad, through academic programs of excellence at the undergraduate and graduate levels, which respond to the development of health professionals committed to the spirit of public service and contribute to the improvement of health services and the quality of life of our society.

The School of Health Sciences, integrates the programs of: Master of Science in Nursing with Adult and the Elderly Specialty, role in Management or Education, Bachelor of Science in Nursing RN to BSN, Bachelor of Science in Nursing, Bachelor of Science in Diagnostic Imaging with concentration in CT and MRI, Associate Degree in Nursing Science, Associate Degree in Therapeutic Massage, Associate Degree in Pharmacy Technician, Associate Degree in Medical Sonography, Associate Degree in Cardiac and Vascular Technology, Associate Degree in Radiologic Technology, Associate Degree in Optical Science, and Certificates in Practical Nursing, Pet Groomer Professional, Medical Secretary with Insurance Billing, Veterinary Assistant, Preschool Teacher Assistant, Laboratory Assistant with Electronic Processing, and Veterinary Assistant with Pet Grooming. These programs provide students with the knowledge and competencies necessary to be applied in service during the offering of the experiences (practicum).

### **MISSION OF THE SCHOOL**

The mission of the School of Health Sciences is to prepare professionals in the health sciences with the integral development of the human being, for the creation and utilization of knowledge through research, evidence-based practice, academic excellence, safety, and quality of services. Education is offered at different academic levels, such as: master's, baccalaureate, associate degrees, and certificates. Emphasis is placed on the pursuit of critical thinking, problem solving methods and decision making for the development of knowledge based on ethical values such as: justice, equity, and respect for human dignity. To enrich teaching, service and promote research, the School of Health Sciences fosters interaction with different educational agencies, state

and national accrediting agencies, and health services agencies that provide students with the opportunity to practice their competencies and skills.

#### **PHILOSOPHY OF LEARNING**

Columbia Central University believes that all people possessing a high school diploma can pursue some level of post-secondary education, given the students' desires to do so, the availability of the appropriate program, the effective teaching and learning process, and student support services. Therefore, all who begin should achieve their educational goal.

**MASTER'S DEGREE OF SCIENCE IN NURSING WITH A SPECIALTY IN ADULTS AND THE ELDERLY  
WITH A ROLE IN MANAGEMENT OR EDUCATION**

**CIP Code: 51.3802**

**SOC Code: 11-9111, 29-1141**

**Credits: 36 credits**

**Duration: 1 year**

**Location: Caguas**

**Modality of Study: On ground and Online**

The master's degree in Nursing with a specialization in Adults and the Elderly (role in Education or Management) aims to prepare students as nursing specialists who are able to apply advanced nursing concepts and clinical judgment, grounded in scientific principles for decision-making at various levels of health prevention. Graduates of this program will be capable of practicing as nurses in various healthcare institutions, both public and private. They will successfully and excellently take on present and future challenges in the field of nursing through planning, implementing, and evaluating effective and efficient interventions focused on the quality and safety of healthcare services for diverse populations. Additionally, students will develop leadership skills, with a strong understanding of human values, in their involvement in the treatment and rehabilitation of individuals, families, and community groups.

**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.

**ADDITIONAL ADMISSION REQUIREMENTS:**

1. Have a bachelor's degree in Nursing.
2. Present evidence of a current license as a General Nurse.
3. As it is a single academic program with two approved roles, the student must select the role of interest for admission.

**INTERSHIP REQUIREMENTS:**

1. Negative Criminal Record Certificate
2. Health Certificate
3. HIPAA Law Certificate
4. Hepatitis B Vaccines (3 doses) If it has been more than 10 years since it was received, a blood test is required to prove immunity.
5. Cardiopulmonary Resuscitation (CPR) Certification
6. Seal and fit test\*
7. Influenza vaccine\*
8. Varicella vaccine (2 doses). If you have had chicken pox, a blood test or varicella titer test is required to prove immunity.
9. Negative certification of Law 300 – Law of Verification of Credentials and Criminal History of Providers to Children, People with Disabilities, and Health Professionals.
10. Generalist membership issued by the Puerto Rico Nursing Examining Board in force
11. General Nurse License
12. Covid vaccine
13. Any other test required by the practice center

\*Important Note: Some practice centers may require additional documents.

**GRADUATION REQUIREMENTS:**

1. Have achieved a minimum GPA of 3.00 or more.

**MASTER'S DEGREE OF SCIENCE IN NURSING WITH A SPECIALTY IN ADULTS AND THE ELDERLY WITH  
A ROLE IN MANAGEMENT OR EDUCATION**

**CURRICULAR STRUCTURE**

**CORE COURSES**

**Prescribed: 18 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
NURS	5200	Advanced Pathophysiology	45	3
NURS	5210	Advanced Pharmacology	45	3
NURS	5220	Advanced Physical Exam	45	3
NURS	5111	Advanced Nursing Research Proposal	45	3
NURS	5212	Advanced Nursing Research Project	45	3
STAT	5210	Statistics	45	3

**Sub-Total:** **270 hours** **18 credits**

**MAJOR COURSES**

**Prescribed: 9 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
NURS	6100	Advanced Care of Adults and the Elderly I	45	3
NURS	6110	Advanced Care of Adults and the Elderly II	45	3
NURS	6120	Advanced Care of Adults and the Elderly III	45	3

**Sub-total:** **135 hours** **9 credits**

**EDUCATION ROLE COURSES**

**Prescribed: 9 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
NURS	6140	Teaching and Learning Strategies in Nursing	45	3
NURS	6170	Teaching Processes in Nursing Education	45	3
NURS	6190P*	Teaching Practice in Nursing Education	105	3

**Sub-total:** **195 hours** **9 credits**

**MANAGEMENT ROLE COURSES**

**Prescribed: 9 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
NURS	6050	Human Resources Development in Nursing Management	45	3
NURS	6160	Administrative Processes in Nursing Services	45	3
NURS	6180P*	Administrative Practice in Nursing Services	105	3

**Sub-total:** **195 hours** **9 credits**

**Notes:** Courses marked with an asterisk (\*) have an on-ground component, regardless of the study modality of the program. As it is a single academic program with two approved roles, the student must select the role of interest for admission.

The curricular structure of the master's degree in science in nursing with specialty in Adults and the Elderly (Role in Education or Management) includes the following components:

COMPONENT	HOURS	CREDITS
Core Courses	270	18
Major Courses	135	9
Education or Management Role Courses	195	9
<b>Total</b>	<b>600</b>	<b>36</b>

**MASTER'S DEGREE OF SCIENCE IN NURSING WITH A SPECIALTY IN ADULTS AND THE ELDERLY  
(ROLE IN EDUCATION)**

**CURRICULUM SEQUENCE**

COURSE	CODE	COURSE NAME	PRE-REQUISITES	CREDITS
<b>FIRST TERM: 12 CREDITS</b>				
NURS	5200	Advanced Pathophysiology	----	3
NURS	5210	Advanced Pharmacology	----	3
STAT	5210	Statistics	----	3
NURS	5220	Advanced Physical Exam	----	3
<b>SECOND TERM: 12 CREDITS</b>				
NURS	5111	Advanced Nursing Research Proposal	STAT 5210	3
NURS	6100	Advanced Care of Adults and the Elderly I	NURS 5200 NURS 5210 NURS 5220	3
NURS	6140	Teaching and Learning Strategies in Nursing	----	3
NURS	5112	Advanced Nursing Research Project	STAT 5210 NURS 5111	3
<b>THIRD TERM: 12 CREDITS</b>				
NURS	6110	Advanced Care of Adults and the Elderly II	NURS 5200 NURS 5210 NURS 5220	3
NURS	6120	Advanced Care of Adults and the Elderly III	NURS 5200 NURS 5210 NURS 5220	3
NURS	6170	Teaching Processes in Nursing Education	----	3
NURS	6190P*	Teaching Practice in Nursing Education	NURS 5112 NURS 6160	3

**Notes:** Courses marked with an asterisk (\*) have an on-ground component, regardless of the study modality of the program. As it is a single academic program with two approved roles, the student must select the role of interest for admission.

**Grand Total of the master's degree of science in nursing with a specialty in adults and the elderly (role in education or management): 36 credits and 600 hours**

\*\* The student does not necessarily have to follow the suggested course order, but the order helps them complete their degree in the stipulated time. The student must be aware of taking the courses that have prerequisites in an order that allows them to continue taking the other courses without problems. Courses without prerequisites have no specific order. The student can register for them in the term that they are offered.

#### **MINIMUM GRADING POLICY**

Students enrolled in the master's degree of science in nursing with a specialty in adults and the elderly (role in education or management) must obtain at least a grade of B when passing all courses.

**MASTER'S DEGREE OF SCIENCE IN NURSING WITH A SPECIALTY IN ADULTS AND THE ELDERLY  
(ROLE IN MANAGEMENT)**

**CURRICULUM SEQUENCE**

COURSE	CODE	COURSE NAME	PRE-REQUISITES	CREDITS
<b>FIRST TERM: 12 CREDITS</b>				
NURS	5200	Advanced Pathophysiology	----	3
NURS	5210	Advanced Pharmacology	----	3
STAT	5210	Statistics	----	3
NURS	5220	Advanced Physical Exam	----	3
<b>SECOND TERM: 12 CREDITS</b>				
NURS	5111	Advanced Nursing Research Proposal	STAT 5210	3
NURS	6100	Advanced Care of Adults and the Elderly I	NURS 5200 NURS 5210 NURS 5220	3
NURS	6160	Administrative Processes in Nursing Services	----	3
NURS	5112	Advanced Nursing Research Project	STAT 5210 NURS 5111	5112
<b>THIRD TERM: 12 CREDITS</b>				
NURS	6110	Advanced Care of Adults and the Elderly II	NURS 5200 NURS 5210 NURS 5220	3
NURS	6120	Advanced Care of Adults and the Elderly III	NURS 5200 NURS 5210 NURS 5220	3
NURS	6050	Human Resources Development in Nursing Management	----	3
NURS	6180P*	Administrative Practice in Nursing Services	NURS 5112 NURS 6160	3

**Notes:** Courses marked with an asterisk (\*) have an on-ground component, regardless of the study modality of the program. As it is a single academic program with two approved roles, the student must select the role of interest for admission.

**Grand Total of the master's degree of science in nursing with a specialty in adults and the elderly (role in education or management): 36 credits and 600 hours**

\*\* The student does not necessarily have to follow the suggested course order, but the order helps them complete their degree in the stipulated time. The student must be aware of taking the courses that have prerequisites in an order that allows them to continue taking the other courses without problems. Courses without prerequisites have no specific order. The student can register for them in the term that they are offered.

#### **MINIMUM GRADING POLICY**

Students enrolled in the master's degree of science in nursing with a specialty in adults and the elderly (role in education or management) must obtain at least a grade of B when passing all courses.

## **BACHELOR DEGREE OF SCIENCE IN NURSING RN TO BSN**

**Credits: 124**

**Duration: One year and four months**

**Location: Caguas**

**Study Modality: Face to Face and Distance Education**

The purpose of the Bachelor Degree of Science in Nursing RN to BSN program is to prepare associate degree nurses at the baccalaureate level. The graduates of this program will be able to use critical judgment when designing care plans to promote, maintain, and restore the health of the individuals they serve. She (He) is a leader in her/his care who, by collaborating with the interdisciplinary team, offers quality health services.

The program also has as one of its goals to emphasize the knowledge required by the Puerto Rico Nurses Examining Board for the granting of the Generalist Nurse License, which allows the legal practice of the profession in Puerto Rico. Rich. To graduate, between credits taken at Columbia Central University and those transferred from other institutions or programs, they must have completed at least 124 credits.

### **ADDITIONAL REQUIREMENT FOR ADMISSION TO THE PROGRAM:**

The applicant for the Bachelor's in Nursing Science RN to BSN must meet the following requirements:

#### **1. Possess an Associate Degree in Nursing Science from CCU**

- The Bachelor Degree of Science in Nursing RN to BSN program rests on the Associate Degree program from CCU. That is why only graduates from the CCU program can be admitted to this program. In any case transfer students from other institutions inquire about this program. They need to be oriented so that they can be considered for the traditional BSN program after an academic assessment is conducted, to determine if the credits from previous institutions can be transferred to this program, in compliance with the Validation and Transfer of Courses Policy.

#### **2. Receive training for the LMS used for those students who are interested in online modality.**

### **ADDITIONAL PROGRAM REQUIREMENT:**

#### **1. Orientation with the Academic Coordinator**

### **ADDITIONAL REQUIREMENTS FOR NURSING COURSES THAT REQUIRE PRACTICE IN A CENTER:**

Requirements must be submitted to the office of the Clinical Practice Administrative Assistant in the undergraduate Nursing Sciences program. Failure to deliver or complete these documents implies that the student will not be authorized to take the Program courses.

1. Negative Certificate of Criminal Records
2. Health Certificate
3. Hepatitis B Vaccination (3 doses) In case of more than 10 years of having received it, a blood test is required to prove immunity.
4. HIPAA Certificate
5. Cardiopulmonary Resuscitation Certification (CPR).
6. Doping Test \*
7. Seal and fit test \*
8. Influenza Vaccine \*
9. Varicella Vaccine (2 doses). If the student had chickenpox, blood or varicella titer a test is required to prove immunity
10. Photo identification
11. Nose, throat, and stool culture\*
12. Birth certificate
13. Negative certification of the Law 300-Credentials and Criminal History Verification Law of Providers to Children, People with Disabilities and Health Professionals
14. Protective Techniques (CPI)
15. Covid Vaccine

**\*Important Note:** Some practice centers may require additional documents. The student needs to revalidate to practice the profession.

#### **GRADUATION REQUIREMENTS:**

1. For graduates with an Associate Degree of Science in Nursing from CCU
  - A. Graduates with an Associate Degree in Nursing Science from CCU are required to complete 52 credits from the Bachelor's in Nursing Science RN to BSN for a grand total of 124 credits. These are detailed as follows:

Component	Associate Degree Level of Nursing Science	Bachelor Level in Nursing Science RN to BSN	Credits
General Education	15	15	30
Electives	0	9	9
Related Courses	13	9	22
Education Career/ Concentration	44	19	63
<b>Total</b>	<b>72</b>	<b>52</b>	<b>124</b>

B. All students need to:

1. Have achieved an average of 2.75 in professional courses.
2. Have achieved an average of 2.25 in related courses.
3. Have achieved a minimum GPA of 2.25.

**ADDITIONAL REQUIREMENTS OF THE BACHELOR DEGREE OF SCIENCE IN NURSING RN TO BSN PROGRAM THROUGH THE ONLINE MODALITY:**

For the development of the activities that will allow to achieve the objectives of the program, it is convenient that the student can have:

- access to a computer
- access to the internet
- the programs that the computer should have been word processor (Word), attractive presentations (power point), and Adobe Reader.

**CURRICULAR STRUCTURE**

**GENERAL EDUCATION COURSES**

**Prescribed: 15 credits**

COURSES	CODE	COURSE NAME	CONTACT HOURS	CREDITS
COMU	3010	Effective Communication	45	3
COPR	3011	Contemporary Problems	45	3
HIST	3004	History of Puerto Rico	45	3
HUMA	3006	Universal History II	45	3
SOCI	2015	Principles of Sociology	45	3

**Sub - total:** **225 hours** **15 credits**

#### **GENERAL EDUCATION ELECTIVES**

**(9 credits to choose from)**

**Electives: 9 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
ART	2009	History of Art	45	3
COMP	1205	Introduction to Computers	60	3
ECON	2012	Puerto Rican Economy	45	3
ENGL	3001	Conversational and Compositional English	45	3
POSC	2013	Introduction to Political Science	45	3
SPAN	3002	Advanced Spanish	45	3

**Sub - total:** **135 or 150 hours** **9 credits**

#### **RELATED COURSES**

**Prescribed: 9 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS

CHEM	3501	Fundamentals of Inorganic Chemistry	60	3
CHEM	3502	Fundamentals of Organic Chemistry	60	3
STAT	3103	Statistics	45	3

**Sub - total:** **165 hours** **9 credits**

### CONCENTRATION COURSES

**Prescribed: 19 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
NURS	3503	Nursing Theories in Health Promotion	45	3
NURS	3504	Health Estimate for Prevention	90	4
NURS	3505	Principles of Research in Health and Nursing	60	3
NURS	4113	Nursing Process with Families and Community	90	4
NURS	4114	Theory and Practice in the Administration of Nursing Services	135	5

**Sub - total:** **420 hours** **19 credits**

**BACHELOR DEGREE OF SCIENCE IN NURSING RN TO BSN****SUGGESTED PROGRAM OF STUDY\*\*****(Study Modality: On ground and Online in Caguas)**

COURSE	CODE	COURSE NAME	PREREQUISITES	CREDITS
<b>FIRST TERM: 13 CREDITS</b>				
COMU	3010	Effective Communication	---	3
NURS	3503	Nursing Theories in Health Promotion	---	3
NURS	3504	Health Estimate for Prevention	---	4
STAT	3103	Statistics	---	3
<b>SECOND TERM: 12 CREDITS</b>				
ELECTIVE		General Education	---	3
CHEM	3501	Fundamentals of Inorganic Chemistry	---	3
HIST	3004	History of Puerto Rico	---	3
NURS	3505	Principles of Research in Health and Nursing	NURS 3503 NURS 3504 STAT 3103	3
<b>THIRD TERM: 13 CREDITS</b>				
ELECTIVE		General Education	---	3
CHEM	3502	Fundamentals of Organic Chemistry	CHEM 3501	3
HUMA	3006	Universal History II	---	3
NURS	4113	Nursing Process with Families and Community	NURS 3503 NURS 3504 NURS 3505 STAT 3103	4
<b>FOURTH TERM: 14 CREDITS</b>				
ELECTIVE		General Education	---	3
COPR	3011	Contemporary Problems	---	3
SOCI	2015	Principles of Sociology	---	3
NURS	4114	Theory and Practice in the Administration of Nursing Services	NURS 3503 NURS 3504 NURS 3505 NURS 4113 STAT 3103	5

**Grand total of the Bachelor of Science in Nursing RN to BSN: 124\*\*\* credits**

\*\* The student does not necessarily have to follow the order of the suggested courses, but the order helps the student to complete their degree in the stipulated time. The student should be aware of taking the courses that have requirements in an order that allows them to continue taking the other courses without problems. The courses without requirements do not have a specific order. The students can enroll in them, in the semester they are offered.

\*\*\*For students with an Associate of Science Degree in Nursing from CCU, completion of the 52 credits of the Bachelor of Science in Nursing RN to BSN is required for a grand total of 124 credits considering the 72 credits approved from CCU's Associate Degree in Science in Nursing.

#### **MINIMUM GRADING POLICY**

Students enrolled in the Bachelor's in Nursing Science RN to BSN must obtain, at a minimum, a grade of **C** to pass the following courses:

CHEM 3501	NURS 3504	STAT 3103	CHEM 3502	NURS 3505
COPR 3011	NURS 4113	NURS 3503	NURS 4114	

#### **BACHELOR DEGREE OF SCIENCE IN NURSING**

**Credits: 125**

**Duration: Three years**

**Location: Caguas, Bayamon**

**Study Modality: Face to Face**

The Bachelor Degree of Science in Nursing prepares the student to perform in a profession with high labor demand. Its main purpose is to develop qualified general nurses, leaders in health care. The student will develop the necessary skills for decision-making in health settings. The program consists of 125 credits. Classes are divided into general, related, and concentration courses. Through the courses the student will be exposed to clinical practices in which they will perform functions and will use the skills and knowledge learned in theoretical classes with real patients.

The student will be prepared to face and meet the health service needs of patients with different conditions and in various settings. The program trains the student to acquire the necessary skills that will help them challenge the revalidation exam offered by the Nurses Examining Board and Nurses of Puerto Rico and thus be able to obtain the license that empowers them to practice in accordance with Law 254, in the category of Generalist Nurse.

#### **PROGRAM OBJECTIVES**

1. Train the student with the skills, competencies, and attitudes necessary to apply the nursing processes in their different roles by offering direct care to patients in a variety of health settings and diversity of populations such as general nurses.
2. Apply effective communication skills, analytical critical thinking, and the use of technology to preserve and guarantee the quality of the health care service offered to the patient and their family.
3. To develop in the student the capacity for critical judgment for problem solving and decision making so that he/she can practice nursing from a humanistic, holistic perspective, based on critical thinking.
4. Develop in the student professional attitudes, soft skills, effective interpersonal skills, and responsibility based on the ethical basis of the profession.
5. Develop in the student the knowledge required to handle impact situations so that they can perform with safety, sensitivity, ethics, and empathy with patients and their families or managers.
6. Provide differentiating elements to the nursing profession that increase the quality of life of the human being through evidence-based practice and cultural sensitivity.
7. Prepare students to act as agents of administration, health promotion, and disease prevention in

communities with democratic and participatory leadership.

8. Train the student so that he/she can know, interpret, and understand the biological, psychological, and social conditions that favor the good state of physical, emotional, and spiritual health of the human being in a holistic approach.

### **PRACTICUM REQUIREMENTS**

It is required to take the practice component of the program, the following current and original documents:

1. Negative Criminal Record Certificate
2. Health Certificate
3. Hepatitis B Vaccines (3 doses)
4. HIPAA Law Certificate
5. Cardiopulmonary Resuscitation (CPR) Certification
6. Doping Test\*
7. Respiratory Test \*
8. Vaccine Influenza \*
9. Varicella Vaccine \*
10. Fit Test or Masks \*
11. Negative Certification of Law 300-Law on Verification of Credentials and Criminal History of Providers to Children, People with Disabilities, and Health Professionals.
12. Certification for Tuberculin Test Reading and Administration (CPI) \*
13. COVID Vaccine

**\* Important Note:** Some practice centers may require additional documents. The student needs to revalidate to practice the profession.

### **REQUIREMENTS FOR THE BOARD EXAM**

The following documents (original and copy) are required to revalidate and practice the profession:

1. Negative Criminal Record Certificate (less than 3 months from issuance)
2. Health Certificate
3. Birth Certificate and Social Security Card
4. High School Credit Transcript
5. Credit Transcript, Diploma, or Certification of Bachelor in Nurse Science obtained at CCU.

6. Application completed in all its parts, including the Affidavit with 2x2 photo and two letter-size envelopes with postage stamp.
7. Payment to the Secretary of the Treasury in the amount of \$25.00 dollars for the right to take the board examination by money order, bank, or certified check provided that the fees for the license application and examination shall not be reimbursed to the applicant.

## CURRICULAR STRUCTURE

### GENERAL EDUCATION COURSES

**Prescribed: 21 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
ENGL	1101	Basic English I	60	3
ENGL	1102	Basic English II	45	3
SEMI	1105	College Success and Professional Seminar	45	3
SPAN	1101	Basic Spanish I	60	3
SPAN	1102	Basic Spanish II	45	3
COMP	1205	Introduction to Computers	60	3
MATH	2002	General Mathematics	45	3
<b>Sub-total:</b>			<b>360 hours</b>	<b>21 credits</b>

### GENERAL EDUCATION ELECTIVES

**Prescribed: The student will select three courses for a total of 9 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
COMU	3010	Effective Communication	45	3
COPR	3011	Contemporary Problems	45	3
HIST	3004	History of Puerto Rico	45	3
HUMA	3006	Universal History	45	3
SOCI	2015	Principles of Sociology	45	3
<b>Sub-total:</b>			<b>135 hours</b>	<b>9 credits</b>

### RELATED COURSES

**Prescribed: 19 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
BIOL	1601	Human Anatomy and Physiology I	60	3
BIOL	1602	Human Anatomy and Physiology II	60	3
BIOL	1603	Microbiology	75	4
CHEM	3501	Foundations of Inorganic Chemistry	60	3
PSYC	2014	Principles of Psychology	45	3
STAT	3103	Statistics	45	3
<b>Sub-total:</b>			<b>345 hours</b>	<b>19 credits</b>

## CONCENTRATION COURSES

**Prescribed: 76 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
NURS	2501	Introduction to the Nursing Profession	45	3
NURS	2531	Nursing Role in Patient's Health History and Physical Examination	45	3
NURS	2541	Pharmacology	45	3
NURS	2551	Nursing Role in Drug Administration: Laboratory	60	2
NURS	2561	Foundations of the Nursing Profession	75	4
NURS	2571	Foundations of the Nursing Profession: Practice	90	2
NURS	3101	Nursing Role in Mental Health and Psychiatry	75	4
NURS	3111	Nursing Role in Mental Health and Psychiatry: Practice	90	2
NURS	3120	Nursing Role in the Care of Adults and the Elderly I	90	5
NURS	3131	Nursing Role in the Care of Adults and the Elderly I: Practice	90	2
NURS	3141	Nursing Role in the Care of Adults and the Elderly II	90	5
NURS	3150	Nursing Role in the Care of Adults and the Elderly II: Practice	90	2
NURS	3160	Nursing Role in Maternity Care	75	4
NURS	3170	Nursing Role in Maternity Care: Practice	90	2
NURS	3180	Nursing Role in Pediatric Care	75	4
NURS	3190	Nursing Role in Pediatric Care: Practice	90	2

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
NURS	4010	Nursing Role in Health Information Systems	45	3
NURS	4030	Nursing Role in Nutrition	45	3
NURS	4040	Cultural Diversity in The Nursing Profession	45	3
NURS	4050	Nursing Role in Evidence-Based Practice: Research Process	45	3
NURS	4060	Nursing Role in Family and Community Care	60	4
NURS	4070	Nursing Role in Family and Community Care: Practice	90	2
NURS	4080	Nursing Seminar	45	3
NURS	4090	Nursing Role in Management and Leadership: Seminar	Four. Five	3
NURS	4100	Practicum: Nursing Management and Leadership: Clinical Experience	135	3

**Sub-total:**

**1,770 hours**

**76 credits**

**BACHELOR DEGREE OF SCIENCE IN NURSING**

**SUGGESTED PROGRAM OF STUDY\*\***

**(Study Modality: Face to Face)**

COURSE	CODE	COURSE NAME	PRE-REQUIREMENTS	CREDITS
<b>FIRST TERM: 15 CREDITS</b>				
BIOL	1601	Human Anatomy and Physiology I	----	3
COMP	1205	Introduction to Computers	----	3
NURS	2501	Introduction to the Nursing Profession	----	3
MATH	2002	General Mathematics	----	3
SEMI	1105	College Success and Professional Seminar	----	3
<b>SECOND TERM: 12 CREDITS</b>				
BIOL	1602	Human Anatomy and Physiology II	BIOL 1601	3
NURS	2561	Foundations of the Nursing Profession	BIOL 1601 NURS 2501	4
NURS	2571	Foundations of the Nursing Profession: Practice	BIOL 1601 NURS 2501	2
SPAN	1101	Basic Spanish I	----	3
<b>THIRD TERM: 15 CREDITS</b>				
BIOL	1603	Microbiology	----	4
NURS	2531	Nursing Role in Patient's Health History and Physical Examination	----	3
NURS	2541	Pharmacology	NURS 2501 NURS 2561 NURS 2571	3
NURS	2551	Nursing Role in Drug Administration: Laboratory	MATH 2002 NURS 2501 NURS 2561 NURS 2571	2
SPAN	1102	Basic Spanish II	SPAN 1101	3

COURSE	CODE	COURSE NAME	PRE-REQUIREMENTS	CREDITS
<b>FOURTH TERM: 16 CREDITS</b>				
CHEM	3501	Inorganic Chemistry Fundamentals	----	3
NURS	3101	Nursing Role in Mental Health and Psychiatry	NURS 2501 NURS 2531 NURS 2541 NURS 2551 NURS 2561 NURS 2571	4
NURS	3111	Nursing Role in Mental Health and Psychiatry: Practice	NURS 2501 NURS 2531 NURS 2541 NURS 2551 NURS 2561 NURS 2571	2
NURS	3120	Nursing Role in the Care of Adults and the Elderly I	NURS 2501 NURS 2571 NURS 2531 NURS 2541 NURS 2551 NURS 2561	5
NURS	3131	Nursing Role in the Care of Adults and the Elderly I: Practice	NURS 2501 NURS 2571 NURS 2531 NURS 2541 NURS 2551 NURS 2561	2
<b>FIFTH TERM - 16 CREDITS</b>				
ENGL	1101	Basic English I	----	3
NURS	3141	Nursing Role in the Care of Adults and the Elderly II	NURS 3120 NURS 3131	5
NURS	3150	Nursing Role in the Care of Adults and the Elderly II: Practice	NURS 3120 NURS 3131	2
NURS	3160	Nursing Role in Maternity Care	NURS 2501 NURS 2531 NURS 2541 NURS 2551 NURS 2561 NURS 2571	4

NURS	3170	Nursing Role in Maternity Care: Practice	NURS 2501 NURS 2531 NURS 2541 NURS 2551 NURS 2561 NURS 2571	2
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COURSE	CODE	COURSE NAME	PRE-REQUIREMENTS	CREDITS
<b>NINTH TERM: 12 CREDITS</b>				
		General Education	----	3
PSYC	2014	Principles of Psychology	----	3
NURS	4080	Seminar	Nursing NURS 3140 NURS 3150 NURS 3160 NURS 3170 NURS 3180 NURS 3190 NURS 4010 NURS 4030 NURS 4040 NURS 4050 NURS 4090	3
NURS	4100	Practicum: Nursing Management and Leadership: Clinical Experience	NURS 3140 NURS 3150 NURS 3160 NURS 3170 NURS 3180 NURS 3190 NURS 4010 NURS 4030 NURS 4040 NURS 4050 NURS 4090	3

**Grand total of Bachelor of Science in Nursing: 125 credits and 2,610 hours**

\*\* The student does not necessarily have to follow the order of the suggested courses, but the order helps the student to complete their degree in the stipulated time. The student should be aware of taking the courses that have requirements in an order that allows them to continue taking the other courses without problems. The courses without requirements do not have a specific order. The students can enroll in them, in the semester they are offered.

**MINIMUM GRADING POLICY**

Students enrolled in the Bachelor's in Nursing Science must obtain at least a grade of C (70% or higher) to pass all professional and concentration courses, except those clinical practice courses that must be passed with a B (80%) or plus.

1. The following courses must be approved with a grade of C or higher:

BIOL 1601	BIOL 1602	BIOL 1603	SEMI 1105	CHEM 3501	PSYC 2014
STAT 3103	NURS 2501	NURS 2561	NURS 2531	NURS 2541	NURS 2551
NURS 3101	NURS 3120	NURS 3141	NURS 3160	NURS 3180	NURS 4030
NURS 4010	NURS 4040	NURS 4050	NURS 4060	NURS 4080	NURS 4090

2. The following courses must be approved with a grade of B or higher:

NURS 2571	NURS 3111	NURS 3131	NURS 3150	NURS 3170	NURS 3190
NURS 4070	NURS 4100				

**BACHELOR'S DEGREE IN DIAGNOSTIC MEDICAL SONOGRAPHY WITH A CONCENTRATION IN  
CARDIOVASCULAR TECHNOLOGY**

**CIP Code: 51.0910**

**SOC Code: 29-2032**

**Credits: 134 credits**

**Duration: 160 weeks (3 years and 4 months)**

**Location: Caguas**

**Modality of Study: On ground**

The bachelor's degree program in Medical Diagnostic 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 offered by the Examining Board of Radiological Technologists in Diagnostic Imaging and Radiotherapy Technologists of Puerto Rico.

**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.

## **PRACTICE REQUIREMENTS**

To take the practice component of the program, the following current and original documents are required:

1. Negative Criminal Record Certificate
2. Health Certificate
3. Hepatitis B Vaccines
4. Chickenpox Vaccine
5. HIPAA Certificate
6. Cardiopulmonary Resuscitation (CPR) Certification
7. Negative certification of Law 300 - Law on Verification of Credentials and Criminal History of Providers to Children, People with Disabilities and Health Professionals
8. Doping Test \*
9. Respiratory Test \*
10. Influenza Vaccine \*
11. Covid-19 Vaccine (Three Doses)
12. Particle Fit Test\*
13. Clinical Practice Cover Letter
14. Practice Authorization Form

**\*Important Note:** Some practice centers may require additional documents. The student needs to revalidate to practice the profession.

## **LICENSURE REQUIREMENTS**

The following documents (original and copy) are required to take the board exam and practice the profession:

1. Be over eighteen (18) years of age and have resided intermittently in Puerto Rico for a period of 6 months immediately before making the request, including sporadic departures.
2. Negative Criminal Record Certificate (less than 6 months since its issuance)
3. Health Certificate
4. Birth Certificate
5. Negative Certification from the Child Support Administration (ASUME) (no later than 30 days after issuance)
6. High School Diploma or Transcript of Credit
7. Bachelor's Degree Certification and/or Diploma in bachelor's degree program in Medical Diagnostic Sonography with a concentration in Cardiovascular Technology obtained at CCU.
8. Official Credit Transcript with the bachelor's degree program in Medical Diagnostic Sonography with a concentration in Cardiovascular Technology. The credit transcript must be sent directly from the university to the Examination Board of Radiology Technologists at the following address:

**Oficina de Reglamentación y Certificación de los Profesionales de la Salud Junta Examinadora de  
Tecnólogos Radiológicos de Puerto Rico  
P.O. BOX 10200, Santurce, Puerto Rico, 00908-0200**

9. Approved result of Physical Examination (to request a general sonographer exam)
10. Application completed in all its parts, including the Affidavit with a 2x2 photo and two letter-size envelopes with a pre-addressed postage stamp with the applicant's postal address.
11. Payment to the Secretary of the Treasury for admission to revalidation of \$40.00 (for each specialty); by postal order or by ATH system. Payment is non-refundable.
12. Request for Reasonable Accommodation, if applicable. This document is available to print at <https://www.salud.pr.gov/CMS/DOWNLOAD/8991>

## CURRICULAR STRUCTURE

### GENERAL EDUCATION COURSES

**Prescribed: 37 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
ENGL	1010	Basic English I	45	3
ENGL	1020	Basic English II	45	3
ENGL	2050	Conversational English	45	3
HUMA	1010	Humanities I	45	3
HUMA	1020	Humanities II	45	3
ITTE	1031L	Computer Literacy and Laboratory	60	3
MATH	1010	Basic Mathematics	45	3
SEMI	1010	Transition to University Life and Professional Training Seminar	15	1
SOSC	1010	Social Sciences I	45	3
SOSC	1020	Social Sciences II	45	3
SPAN	1010	Basic Spanish I	45	3
SPAN	1020	Basic Spanish II	45	3
SPAN	2040	Writing and Composition	45	3

**Sub-total** **570 hours** **37 credits**

### CORE COURSES

**Prescribed: 20 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
MESE	1010	Medical Terminology	45	3
BIOL	2010	Human Anatomy and Physiology I	45	3
BIOL	2020	Human Anatomy and Physiology II	45	3
BIOL	2030	Sectional Anatomy	30	2
BIOL	2030L	Sectional Anatomy Laboratory	30	1
ANAT	2040	Anatomy and Physiology of the Heart	30	2
PHSC	2030	Ultrasound Physics and Instrumentation I	45	3
PHSC	2040	Ultrasound Physics and Instrumentation II	45	3

**Sub-total** **315 hours** **20 credits**

### CONCENTRATION COURSES

**Prescribed: 77 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
SONO	1020	Introduction to Medical Sonography	45	3
SONO	1030	Patient Management and Care in Sonographic Imaging	45	3
SONO	1040L	Abdominal Sonography and Laboratory	75	4
SONO	2020L	Gynecological Sonography and Laboratory	75	4
SONO	2030L	Laboratory of Integration of Clinical Skills in Medical Sonography	60	2

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
SONO	2050L	Obstetric Sonography and Laboratory	75	4
SONO	2040P	Clinical Practice I: Medical Sonography	90	2
SONO	2070L	Sonography of Superficial Structures and Laboratory	75	4
SONO	2071	Pathology Applied to Medical Sonography I	45	3
SONO	2060P	Clinical Practice II: Medical Sonography	90	2
SONO	2072	Pathology Applied to Medical Sonography II	45	3
SONO	2080	Pre-Certification Exam Seminar in Medical Sonography	30	2
SONO	2090	Special Procedures In Medical Sonography	30	2
SONO	3000P	Clinical Practice III: Medical Sonography	225	5
SONO	3010L	Fundamentals of Electrocardiography, Stress Tests, and Holter	60	3
SONO	3020L	Basic Echocardiography and Laboratory	90	4
SONO	3030L	Sonographic Evaluation of Cardiac Pathologies and Laboratory	60	3
SONO	3040L	Cardiovascular Technology Laboratory	60	2
SONO	3050L	Vascular Sonography of Upper Extremities, Clinical Application and Laboratory	60	3
SONO	3060L	Cerebrovascular Sonography, Clinical Application, and Laboratory	60	3
SONO	3070P	Sonography and Cardiovascular Technology Practice I	180	4
SONO	3080L	Vascular Sonography of Lower Extremities, Clinical Application and Laboratory	60	3
SONO	4010L	Abdominal Doppler and Laboratory	60	3
SONO	4020P	Sonography and Cardiovascular Technology Practice II	180	4
SONO	4030	Pre-Certification Seminar in Cardiovascular Sonography	30	2

**Sub-total** **1,905 hours** **77 credits**

COMPONENT	HOURS	CREDITS
General Education Courses	570	37
Core Courses	315	20
Concentration Courses	1,905	77
<b>TOTAL</b>	<b>2,790</b>	<b>134</b>

**BACHELOR'S DEGREE IN DIAGNOSTIC MEDICAL SONOGRAPHY WITH A CONCENTRATION IN  
CARDIOVASCULAR TECHNOLOGY**  
**CURRICULUM: AUGUST 2024**

**CURRICULUM SEQUENCE\*\***

COURSE	CODE	COURSE NAME	PRE-REQUISITES	CREDITS
<b>FIRST TERM: 15 CREDITS</b>				
ENGL	1010	Basic English I	----	3
ITTE	1031L	Computer Literacy and Laboratory	----	3
BIOL	2010	Human Anatomy and Physiology I	----	3
SONO	1020	Introduction to Medical Sonography	----	3
SONO	1030	Patient Management and Care in Sonographic Imaging	----	3
<b>SECOND TERM: 15 CREDITS</b>				
MATH	1010	Basic Mathematics	----	3
MESE	1010	Medical Terminology	----	3
SPAN	1010	Basic Spanish I	----	3
BIOL	2020	Human Anatomy and Physiology II	BIOL 2010	3
ENGL	1020	Basic English II	ENGL 1010	3
<b>THIRD TERM: 14 CREDITS</b>				
SEMI	1010	Transition to University Life and Professional Training Seminar	----	1
SONO	1040L	Abdominal Sonography and Laboratory	SONO 1020 SONO 1030 MESE 1010	4
PHSC	2030	Ultrasound Physics and Instrumentation I	MATH 1010	3
SONO	2020L	Gynecological Sonography and Laboratory	----	4
SONO	2030L	Laboratory of Integration of Clinical Skills in Medical Sonography	SONO 1020 SONO 1030 SONO 1040L MESE 1010	2
<b>FOURTH TERM: 15 CREDITS</b>				
SONO	2040P	Clinical Practice I: Medical Sonography	SONO 2020L SONO 2030L	2
BIOL	2030	Sectional Anatomy	BIOL 2010 BIOL 2020	2
BIOL	2030L	Sectional Anatomy Laboratory	BIOL 2010 BIOL 2020	1
PHSC	2040	Ultrasound Physics and Instrumentation II	PHSC 2030	3
SONO	2050L	Obstetric Sonography and Laboratory	SONO 1020 SONO 1030 SONO 2020L MESE 1010 PHSC 2030	3
SPAN	1020	Basic Spanish II	SPAN 1010	3

COURSE	CODE	COURSE NAME	PRE-REQUISITES	CREDITS
<b>FIFTH TERM: 12 CREDITS</b>				
SONO	2060P	Clinical Practice II: Medical Sonography	SONO 2040P	2
SONO	2070L	Sonography of Superficial Structures and Laboratory	SONO 2030L PHSC 2040	4
SOSC	1010	Social Sciences I	----	3
SONO	2071	Pathology Applied to Medical Sonography I	SONO 1040L SONO 2020L SONO 2050L SONO 2070L	3
<b>SIXTH TERM: 12 CREDITS</b>				
SONO	3000P	Clinical Practice III: Medical Sonography	SONO 2060P	5
SONO	2080	Pre-Certification Exam Seminar in Medical Sonography	SONO 2020L SONO 2040L SONO 2050L SONO 2070L SONO 2071 PHSC 2040	2
SONO	2090	Special Procedures in Medical Sonography	SONO 1040L SONO 2020L SONO 2050L SONO 2070L SONO 2071	2
SONO	2072	Patología Aplicada a la Sonografía Médica II	SONO 2071	3
<b>SEVENTH TERM: 12 CREDITS</b>				
ANAT	2040	Anatomy And Physiology of The Heart	BIOL 2020	3
SONO	3010L	Fundamentals of Electrocardiography, Stress Tests, and Holter	SONO 3000P	3
SONO	3020L	Basic Echocardiography and Laboratory	SONO 3000P	3
HUMA	1010	Humanities I	----	3
<b>EIGHTH TERM: 14 CREDITS</b>				
SOSC	1020	Social Sciences II	SOSC 1010	3
SONO	3030L	Sonographic Evaluation of Cardiac Pathologies and Laboratory	ANAT 2040 SONO 3020L	3
HUMA	1020	Humanities II	HUMA 1010	3
ENGL	2050	Conversational English	ENGL 1020	3
SONO	3040L	Cardiovascular Technology Laboratory	ANAT 2040 SONO 3010L SONO 3020L	2

COURSE	CODE	COURSE NAME	PRE-REQUISITES	CREDITS
<b>NINTH TERM: 13 CREDITS</b>				
SONO	3070P	Sonography and Cardiovascular Technology Practice I	SONO 3040L	4
SPAN	2040	Writing and Composition	SPAN 1020	3
SONO	3050L	Vascular Sonography of Upper Extremities, Clinical Application, and Laboratory	SONO 3040L	3
SONO	3060L	Cerebrovascular Sonography, Clinical Application, and Laboratory	SONO 3040L	3
<b>TENTH TERM: 12 CREDITS</b>				
SONO	4020P	Sonography and Cardiovascular Technology Practice II	SONO 3050L SONO 3060L SONO 3070P	4
SONO	3080L	Vascular Sonography of Lower Extremities, Clinical Application, and Laboratory	SONO 3050L SONO 3060L	3
SONO	4010L	Abdominal Doppler and Laboratory	SONO 3050L SONO 3060L	3
SONO	4030	Pre-Certification Seminar in Cardiovascular Sonography	PHSC 2030 PHSC 2040 SONO 3020L SONO 3030L SONO 3050L SONO 3060L SONO 3070P	2

**Grand Total of the bachelor's degree in Diagnostic Medical Sonography with A Concentration in Cardiovascular Technology: 2,790 hours y 134 credits**

\*\*The student does not necessarily have to follow the suggested course order, but the order helps them complete their degree in the stipulated time. The student must be aware of taking the courses that have prerequisites in an order that allows them to continue taking the other courses without problems. Courses without prerequisites have no specific order. The student can register for them in the term that they are offered.

**MINIMUM GRADING POLICY**

Students enrolled in the bachelor's degree in Diagnostic Medical Sonography with A Concentration in Cardiovascular Technology must obtain at least a grade of C (70% or more) upon passing all Core and Concentration courses, except the clinical practice or internship courses which must be passed with B (80%) or more.

The following courses must be passed with a grade of C or higher:

MESE 1010	BIOL 2010	BIOL 2020	BIOL 2030	BIOL 2030L	PHSC 2030
PHSC 2040	SONO 1020	SONO 1030	SONO 1040L	SONO 2020L	SONO 2030L
SONO 2050L	SONO 2070L	SONO 2071	SONO 2072	SONO 2080	SONO 2090
SONO 3010L	SONO 3020L	SONO 3030L	SONO 3040L	SONO 3050L	SONO 3060L
SONO 3080L	SONO 4010L	SONO 4030			

The following courses must be passed with a grade of B or higher:

SONO 2040P SONO 2060P SONO 3000P SONO 3070P SONO 4020P

**BACHELOR'S DEGREE IN DIAGNOSTIC IMAGING WITH CONCENTRATION IN CT AND MRI****CIP Code: 51.0920****SOC Code: 29-2035****Credits: 131 credits****Duration: 160 weeks (3 years and 4 months)****Location: Bayamón, Caguas****Modality of Study: On ground**

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). Students will demonstrate knowledge of scientific and technological advances in this field, as well as skills for providing diagnostic imaging services in an environment that promotes a culture of safety and quality in healthcare services. Graduates of this program will be able to work as imaging technologists in various healthcare settings, following the regulations set forth by the General Regulations of the Licensing Board of Radiological Technologists in Diagnostic Imaging and Radiotherapy Technologists in Puerto Rico.

**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.

## PRACTICE REQUIREMENTS

To take the practice component of the program, the following current and original documents are required:

1. Negative Criminal Record Certificate
2. Health Certificate
3. Hepatitis B Vaccines
4. Chickenpox Vaccine
5. HIPAA Certificate
6. Cardiopulmonary Resuscitation (CPR) Certification
7. Negative certification of Law 300 - Law on Verification of Credentials and Criminal History of Providers to Children, People with Disabilities and Health Professionals
8. Doping Test \*
9. Respiratory Test \*
10. Influenza Vaccine \*
11. Clinical Practice Cover Letter
12. Practice Authorization Form

**\*Important Note:** Some practice centers may require additional documents. The student needs to revalidate to practice the profession.

## LICENSURE REQUIREMENTS

The following documents (original and copy) are required to take the board exam and practice the profession:

1. Be over eighteen (18) years of age and have resided intermittently in Puerto Rico for a period of 6 months immediately before making the request, including sporadic departures.
2. Negative Criminal Record Certificate (less than 6 months since its issuance)
3. Health Certificate
4. Birth Certificate
5. Negative Certification from the Child Support Administration (ASUME) (no later than 30 days after issuance)
6. Radiological Technologist License.
7. Current Registration Certification of Radiological Technologist
8. Bachelor's Degree Certification and/or Diploma in Diagnostic Imaging with a concentration in CT and MRI obtained at CCU (formerly EDIC College).
9. Official Credit Transcript with the Bachelor's Degree in Diagnostic Imaging with a

concentration in CT and MRI. The credit transcript must be sent directly from the university to the Examination Board of Radiology Technologists at the following address:

**Oficina de Reglamentación y Certificación de los Profesionales de la Salud**

**Junta Examinadora de Tecnólogos Radiológicos de Puerto Rico**

**P.O. BOX 10200, Santurce, Puerto Rico, 00908-0200**

10. Application completed in all its parts, including the Affidavit with a 2x2 photo and two letter-size envelopes with a pre-addressed postage stamp with the applicant's postal address.
11. Payment to the Secretary of the Treasury for admission to revalidation for \$30.00 (for each specialty); by postal order or by ATH system. Payment is non-refundable.
12. Request for Reasonable Accommodation, if applicable. This document is available to print at <https://www.salud.pr.gov/CMS/DOWNLOAD/8991>

**CURRICULAR STRUCTURE**  
**GENERAL EDUCATION COURSES**

**Prescribed: 19 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
ENGL	1010	Basic English I	45	3
ENGL	1020	Basic English II	45	3
SEMI	1010	Transition to University Life and Professional Training Seminar	15	1
SPAN	1010	Basic Spanish I	45	3
SPAN	1020	Basic Spanish II	45	3
MATH	1010	Basic Mathematics	45	3
ITTE	1031L	Computer Literacy and Laboratory	60	3

**Sub-total** **300 hours** **19 credits**

**CORE COURSES**

**Prescribed: 18 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
MESE	1010	Medical Terminology	45	3
BIOL	2010	Anatomy and Physiology I	45	3
BIOL	2020	Anatomy and Physiology II	45	3
BIOL	2030	Sectional Anatomy	30	2
BIOL	2030L	Sectional Anatomy Laboratory	30	1
PHYS	1020	Introduction to Physics	45	3
PSYC	2510	Psychology	45	3

**Sub-total** **285 hours** **18 credits**

**CONCENTRATION COURSES**

**Prescribed: 94 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
RADI	1010	Introduction to Radiology	30	2
RADI	2009	Radiological Physics	45	3
RADI	2010	Patient Care and Management	45	3
RADI	2020	Radiological Positioning and Related Anatomy I	30	2
RADI	2020L	Radiographic Positioning and Related Anatomy I: Laboratory	30	1
RADI	2030	Knowing Imaging Modalities and Equipment	30	2
RADI	2040L	Integrative Seminar: Laboratory	60	2
RADI	2050	Principles of Radiographic Exposure	45	3
RADI	2060	Principles of Radiobiology and Radiographical Protection	30	2
RADI	2070	Radiological Positioning and Related Anatomy II	30	2
RADI	2070L	Radiographic Positioning and Related Anatomy II: Laboratory	30	1

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
RADI	2080P	Clinical Internship I	135	3
RADI	2100	Radiological Positioning and Related Anatomy III	30	2
RADI	2100L	Radiographic Positioning and Related Anatomy III: Laboratory	30	1
RADI	2110P	Clinical Internship II	135	3
RADI	2130	Radiological Pathology	30	2
RADI	2140	Radiological Positioning and Related Anatomy IV	30	2
RADI	2140L	Radiographic Positioning and Related Anatomy IV: Laboratory	30	1
RADI	2150P	Clinical Internship III	135	3
RADI	2170	Radiographic Quality Assurance and Control	30	2
RADI	2200	Pharmacology and Contrast Media in Diagnostic Imaging	45	3
RADI	2500	Advanced Sectional Anatomy	60	4
RADI	3000	Physics: Instrumentation and Images in Computed Tomography	45	3
RADI	3010	Procedures for Image Formation in Computed Tomography	45	3
RADI	3020	Pathological Correlation by Computed Tomography	45	3
RADI	3030	Procedures for Obtaining Images by Magnetic Resonance	45	3
RADI	3040	Pathological Correlation by Magnetic Resonance	45	3
RADI	3050	Physics: Principles, Parameters, and Concepts of Magnetic Resonance	45	3
RADI	3060	Ethics and Law in Imaging Science	45	3
RADI	3070	Computers in Medical Imaging and Informatics	45	3
RADI	4010P	Clinical Internship in Computed Tomography	270	6
RADI	4020P	Clinical Internship in Magnetic Resonance	270	6
RADI	4030	Pre-Certification Seminar in Radiologic Technology, CT, and MRI	45	3
RADI	4040	Research Methods and Computer Literacy	45	3
RADI	4050	Educational Principles for Technologists	45	3

**Sub-total** **2,130 hours** **94 credits**

COMPONENT	HOURS	CREDITS
General Education Courses	300	19
Core Courses	285	18
Concentration Courses	2,130	94
<b>TOTAL</b>	<b>2,715</b>	<b>131</b>

**BACHELOR'S DEGREE IN DIAGNOSTIC IMAGING WITH CONCENTRATION IN CT AND MRI**  
**CURRICULUM: AUGUST 2024**

**CURRICULUM SEQUENCE\*\***

COURSE	CODE	COURSE NAME	PRE-REQUISITES	CREDITS
<b>FIRST TERM: 14 CREDITS</b>				
SPAN	1010	Basic Spanish I	----	3
ENGL	1010	Basic English I	----	3
MATH	1010	Basic Mathematics	----	3
BIOL	2010	Anatomy And Physiology I	----	3
RADI	1010	Introduction To Radiology	----	2
<b>SECOND TERM: 15 CREDITS</b>				
MESE	1010	Medical Terminology	BIOL 2010	3
PHYS	1020	Introduction To Physics	MATH 1010	3
BIOL	2020	Anatomy And Physiology II	BIOL 2010	3
ITTE	1031L	Computer Literacy and Laboratory	----	3
RADI	2010	Patient Care and Management	RADI 1010	3
<b>THIRD TERM: 14 CREDITS</b>				
SEMI	1010	Transition To University Life and Professional Training Seminar	----	1
SPAN	1020	Basic Spanish II	SPAN 1010	3
RADI	2020	Radiographic Positioning and Related Anatomy I	BIOL 2010 BIOL 2020 MESE 1010 PHYS 1020 RADI 2010	2
RADI	2020L	Radiographic Positioning and Related Anatomy I: Laboratory	BIOL 2010 BIOL 2020 MESE 1010 PHYS 1020 RADI 2010	1
RADI	2009	Radiological Physics	MATH 1010 PHYS 1020 RADI 1010	3
RADI	2030	Knowing Imaging Modalities and Equipment	RADI 1010	2
RADI	2040L	Integrative Seminar: Laboratory	BIOL 2010 BIOL 2020 MESE 1010 PHYS 1020 RADI 1010 RADI 2010 RADI 2020 RADI 2020L	2

**FOURTH TERM: 14 CREDITS**

RADI	2080P	Clinical Internship I	BIOL 2010 BIOL 2020 MESE 1010 PHYS 1020 RADI 1010 RADI 2009 RADI 2010 RADI 2020 RADI 2020L RADI 2040L	3
PSYC	2510	Psychology	----	3
RADI	2050	Principles of Radiographic Exposure	PHYS 1020 RADI 1010 RADI 2009	3
RADI	2060	Principles of Radiobiology and Radiological Protection	PHYS 1020 RADI 1010 RADI 2009	2
RADI	2070	Radiographic Positioning and Related Anatomy II	BIOL 2010 BIOL 2020 MESE 1010 PHYS 1020 RADI 1010 RADI 2009 RADI 2010 RADI 2020 RADI 2020L	2
RADI	2070L	Radiographic Positioning and Related Anatomy II: Laboratory	BIOL 2010 BIOL 2020 MESE 1010 PHYS 1020 RADI 1010 RADI 2009 RADI 2010 RADI 2020 RADI 2020L	1

**FIFTH TERM: 13 CREDITS**

RADI	2110P	Clinical Internship II	BIOL 2010 BIOL 2020 PHYS 1020 MESE 1010 RADI 1010 RADI 2009 RADI 2010 RADI 2020 RADI 2020L RADI 2030 RADI 2040L RADI 2050 RADI 2060 RADI 2070 RADI 2070L RADI 2080P	3
RADI	2200	Pharmacology and Contrast Media in Diagnostic Imaging	RADI 1010 RADI 2010 BIOL 2010 BIOL 2020 MESE 1010	3
RADI	2170	Radiographic Quality Assurance and Control	RADI 2050	2
RADI	2100	Radiographic Positioning and Related Anatomy III	BIOL 2010 BIOL 2020 MESE 1010 PHYS 1020 RADI 1010 RADI 2009 RADI 2010 RADI 2020 RADI 2020L RADI 2070 RADI 2070L	2
RADI	2100L	Radiographic Positioning and Related Anatomy III: Laboratory	BIOL 2010 BIOL 2020 MESE 1010 PHYS 1020 RADI 1010 RADI 2009 RADI 2010 RADI 2020 RADI 2020L RADI 2070 RADI 2070L	1
RADI	2130	Radiological Pathology	BIOL 2010 BIOL 2020 RADI 2170	2

SIXTH TERM: 12 CREDITS					
RADI	2150P	Clinical Internship III	BIOL 2010 BIOL 2020 MESE 1010 PHYS 1020 RADI 1010 RADI 2009 RADI 2010 RADI 2020 RADI 2020L RADI 2030 RADI 2040L RADI 2050 RADI 2060 RADI 2070 RADI 2070L RADI 2080P RADI 2100 RADI 2100L RADI 2110P RADI 2120 or RADI 2200 RADI 2170		3
BIOL	2030	Sectional Anatomy	BIOL 2020	2	
BIOL	2030L	Sectional Anatomy Laboratory	BIOL 2020	1	
ENGL	1020	Basic English II	ENGL 1010	3	
RADI	2140	Radiographic Positioning and Related Anatomy IV	BIOL 2010 BIOL 2020 MESE 1010 PHYS 1020 RADI 1010 RADI 2009 RADI 2010 RADI 2020 RADI 2020L RADI 2070 RADI 2070L RADI 2100 RADI 2100L RADI 2120 or RADI 2200		2
RADI	2140L	Radiographic Positioning and Related Anatomy IV: Laboratory	BIOL 2010 BIOL 2020 MESE 1010 PHYS 1020 RADI 1010 RADI 2009 RADI 2010 RADI 2020 RADI 2020L RADI 2070 RADI 2070L RADI 2100 RADI 2100L RADI 2120 or		1

			RADI 2200	
<b>SEVENTH TERM: 13 CREDITS</b>				
RADI	3060	Ethics and Law in Imaging Science	RADI 1010	3
RADI	3070	Computers in Medical Imaging and Informatics	ITTE 1031L	3
RADI	2500	Advanced Sectional Anatomy	BIOL 2030 BIOL 2030L RADI 2140 RADI 2140L RADI 2150P	4
RADI	4040	Research Methods and Computer Literacy	ITTE 1031L	3
<b>EIGHTH TERM: 12 CREDITS</b>				
RADI	3000	Physics: Instrumentation and Images in Computed Tomography	RADI 2500	3
RADI	3010	Procedures for Image Information in Computed Tomography	RADI 2500	3
RADI	3020	Pathological Correlation by Computed Tomography	RADI 2500	3
RADI	3030	Procedures for Obtaining Images by Magnetic Resonance	RADI 2500	3
<b>NINTH TERM: 12 CREDITS</b>				
RADI	4010P	Clinical Internship in Computed Tomography	RADI 3000 RADI 3010 RADI 3020	6
RADI	3050	Physics: Principles, Parameters, and Concepts of Magnetic Resonance	RADI 2500	3
RADI	3040	Pathological Correlation by Magnetic Resonance	RADI 2500	3

**TENTH TERM: 12 CREDITS**

RADI	4020P	Clinical Internship in Magnetic Resonance	RADI 3030 RADI 3040 RADI 3050	6
RADI	4050	Educational Principles for Technologists	ITTE 1031L RADI 2500	3
RADI	4030	Pre-Certification Seminar in Technology Radiology, CT, and MRI	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 2120 o RADI 2200, BIOL 2030, BIOL 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	3

**Grand Total of the bachelor's degree in Diagnostic Imaging with concentration in CT and MRI: 2,715 hours and 131 credits**

\*\*The student does not necessarily have to follow the suggested course order, but the order helps them complete their degree in the stipulated time. The student must be aware of taking the courses that have prerequisites in an order that allows them to continue taking the other courses without problems. Courses without prerequisites have no specific order. The student can register for them in the term that they are offered.

**MINIMUM GRADING POLICY**

Students enrolled in the bachelor's degree in Diagnostic Imaging with concentration in CT and MRI, must obtain at least a grade of C (70% or more) upon passing all Core and Concentration courses, except the clinical practice or internship courses which must be passed with B (80%) or more.

The following courses must be passed with a grade of C or higher:

MESE 1010	BIOL 2010	BIOL 2020	BIOL 2030	BIOL 2030L	PHYS 1020
PSYC 2510	RADI 1010	RADI 2009	RADI 2010	RADI 2020	RADI 2020L
RADI 2030	RADI 2040L	RADI 2050	RADI 2060	RADI 2070	RADI 2070L
RADI 2100	RADI 2100L	RADI 2130	RADI 2140	RADI 2140L	RADI 2170
RADI 2200	RADI 2500	RADI 3000	RADI 3010	RADI 3020	RADI 3030
RADI 3040	RADI 3050	RADI 3060	RADI 3070	RADI 4030	RADI 4040
RADI 4050					

The following courses must be passed with a grade of B or higher:

RADI 2080P      RADI 2110P      RADI 2150P      RADI 4010P      RADI 4020P

## **ASSOCIATE DEGREE IN NURSING SCIENCES**

**Credits: 72**

**Duration: Two years**

**Location: Caguas**

**Study Modality: Face to Face**

The program develops nursing professionals, training them to function in health settings that offer nursing services to the client and their family, whether hospitalized, at an outpatient level or in the community, according to their preparation. The program aims to prepare future nursing professionals in the associate degree to deal with the health problems of our society, by promoting and maintaining the health of the individual, family, and community, through the satisfaction of their needs and prevention diseases, under the guidance and direction of the general nursing professional.

The associate degree for nursing professionals in this program will possess the preparation required to meet the requirements established by the Puerto Rico Nursing Examining Board. This will allow them to obtain a license as an associate nurse to legally practice their profession.

The program prepares the students to continue their studies leading to the Bachelor's in Nursing Science RN to BSN, offering the knowledge bases of health, nursing, and general sciences.

### **ADDITIONAL PROGRAM REQUIREMENTS:**

1. Orientation with the Academic Coordinator

### **ADDITIONAL REQUIREMENTS FOR NURSING COURSES THAT REQUIRE CLINICAL EXPERIENCE IN A CENTER.**

1. Negative Certificate of Criminal Records
2. Health Certificate
3. Hepatitis B Vaccination (3 doses) In case of more than 10 years of having received it, a blood test is required to prove immunity.
4. HIPAA Certificate
5. Cardiopulmonary Resuscitation Certification (CPR).
6. Doping Test \*.

7. Seal and fit test \*
8. Influenza Vaccine \*
9. Varicella Vaccine (2 doses). Students that had chickenpox, blood or varicella titer a test is required to prove immunity.
10. Photo identification
11. Nose, throat, and stool culture\*.
12. Birth certificate
13. Negative certification of the Law 300-Credentials and Criminal History Verification Law of Providers to Children, People with Disabilities and Health Professionals.
14. Protective Techniques (CPI)
15. Covid Vaccine

**\*Important Note:** Some practice sites may require additional documents. The student needs to revalidate to practice the profession.

#### **ADDITIONAL GRADUATION REQUIREMENTS:**

1. Have achieved an average of 2.50 in professional courses.
2. Have achieved an average of 2.00 in general and related courses.

#### **BOARD EXAM REQUIREMENTS**

The following documents (original and copy) are required to revalidate and practice the profession:

1. Negative Certificate of Criminal Record (less than 3 months from issuance) 2.
2. Health Certificate
3. Birth Certificate and Social Security Card
4. Certification of No Alimony Debt (ASUME)
5. High School Credit Transcript
6. Transcript of Credit or Diploma or Certification of the Associate Degree earned at CCU

7. Completed application in all its parts, including the Affidavit with 2x2 photo and two letter size envelopes with postmark.
8. Payment to the Secretary of the Treasury for the amount of \$25.00 dollars for the revalidation examination fee by money order, bank draft or certified check. Provided that the license application and examination fees shall not be reimbursed to the applicant.

### **CURRICULAR STRUCTURE**

#### **GENERAL EDUCATION COURSES**

**Prescribed: 15 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
ENGL	1101	Basic English I	60	3
ENGL	1102	Basic English II	45	3
SEMI	1105	College Success and Professional Seminar	45	3
SPAN	1101	Basic Spanish	60	3
SPAN	1102	Basic Spanish II	45	3

**Sub - total:** **255 hours** **15 credits**

#### **RELATED COURSES**

**Prescribed: 13 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
BIOL	1601	Human Anatomy and Physiology I	60	3
BIOL	1602	Human Anatomy and Physiology II	60	3
BIOL	1603	Microbiology	75	4
COMP	1205	Introduction to Computers	60	3

**Sub - total:** **255 hours** **13 credits**

## PROFESSIONAL EDUCATION COURSES

**Prescribed: 44 credits**

COURSE	CODE	COURSE NAME	HOURS CONTACT	CREDITS
NURS	1604	Nursing Process	45	3
NURS	1609	Nursing Process Maternal Child	135	5
NURS	1610	Principles of Pharmacology	90	4
NURS	1611	Nursing Fundamentals	135	6
NURS	1612	Physiopathology of the Human Body	60	3
NURS	2612	Nursing Process for Children and Adolescents	135	5
NURS	2613	Nursing Process of the Mental and Emotional Health of the Human	135	5
NURS	2614	Nursing Process of Adults and Geriatric	135	5
NURS	2615	Nursing Process of Adults and Geriatric	135	5
NURS	2616	Integrative Seminar	45	3

**Sub - total:** **1,050 hours** **44 credits**

**ASSOCIATE DEGREE IN NURSING SCIENCES**

**SUGGESTED PROGRAM OF STUDIES \*\***

**(Study Modality: Face to Face)**

COURSES	CODE	NAME OF THE COURSE	PRE-REQUIREMENTS	CREDITS
<b>FIRST TERM: 12 CREDITS</b>				
BIOL	1601	Human Anatomy and Physiology I	----	3
COMP	1205	Introduction to Computers	----	3
NURS	1604	Nursing Process	----	3
SEMI	1105	College Success and Professional Seminar	----	3
<b>SECOND TERM: 13 CREDITS</b>				
BIOL	1602	Human Anatomy and Physiology II	BIOL 1601	3
NURS	1610	Principles of Pharmacology	----	4
NURS	1611	Fundamentals of Nursing	BIOL 1601 NURS 1604	6
<b>THIRD TERM: 12 CREDITS</b>				
BIOL	1603	Microbiology	----	4
NURS	1612	Physiopathology of the Human Body	BIOL 1601 BIOL 1602 NURS 1611	3
NURS	2613	Nursing Process of the Mental and Emotional Health of the Human Being	NURS 1610 NURS 1611	5
<b>FOURTH TERM: 13 CREDITS</b>				
NURS	1609	Maternal and Child Nursing Process	BIOL 1603 NURS 1612 NURS 2613	5
NURS	2612	Nursing Process for Children and Adolescents	BIOL 1603 NURS 1612 NURS 2613	5
SPAN	1101	Basic Spanish I	----	3
<b>FIFTH TERM: 11 CREDITS</b>				
ENGL	1101	Basic English I	----	3
NURS	2614	Nursing Process of Adults and Geriatric I	NURS 1609 NURS 2612	5
SPAN	1102	Basic Spanish II	SPAN 1101	3
<b>SIXTH TERM: 11 CREDITS</b>				
ENGL	1102	Basic English II	ENGL 1101	3
NURS	2615	Nursing Process of Adults and Geriatric II	NURS 2614	5
NURS	2616	Seminar Integrative	NURS 2614	3

**Grand total of Associate Degree of Science in Nursing: 72 credits and 1,560 hours**

\*\* The student does not necessarily have to follow the order of the suggested courses, but the order helps the student to complete their degree in the stipulated time. The student should be aware of taking the courses that have requirements in an order that allows them to continue taking the other courses without problems. The courses without requirements do not have a specific order. The students can enroll in them, in the semester they are offered.

**MINIMUM GRADING POLICY**

Students enrolled in the Associate Degree in Nursing Sciences must obtain, at least, a grade of **C** to pass the following courses:

BIOL 1601	NURS 1609	NURS 2612	NURS 2616
BIOL 1602	NURS 1610	NURS 2613	SEMI 1105
BIOL 1603	NURS 1611	NURS 2614	NURS 1604
NURS 1612	NURS 2615		

## **ASSOCIATE DEGREE IN PHARMACY TECHNICIAN**

**Credits: 83**

**Duration: Two years**

**Location: Caguas Campus**

**Study Modality: On ground and Online**

The purpose of the program is to develop pharmacy technicians trained to function in health settings that offer pharmacy services, whether in community, chain, institutional, specialized pharmacy, manufacturing houses, drug stores and health plan agencies, among others. The program aims to prepare future pharmacy technicians through specialty courses and Internship hours to exercise the occupation with a good pharmacy practice guide that will include the norms and standards to provide quality services, based on responsibilities and functions that are consistent with the provisions of law, under the guidance and direction of the pharmacist.

The Pharmacy Technician will possess the preparation required to meet the requirements established by Law # 247 of September 3, 2004, as amended known as the Puerto Rico Pharmacy Law. This will allow you to obtain a certification as a Pharmacy Technician to legally practice your profession in Puerto Rico.

### **ADDITIONAL PROGRAM REQUIREMENTS FOR THE INTERNSHIP:**

1. Orientation with the Academic Coordinator.
2. Identify the pharmacist and the internship center.
3. Compile all the documents requested by the Puerto Rico Board of Pharmacy.
4. Complete the application to begin your internship provided by the Puerto Rico Board of Pharmacy with the purpose of requesting the provisional Certificate to begin the internship. The Pharmacy Board will approve the request with the number of hours submitted. Columbia Central University (CCU) students will need to request a minimum of 36 - 40 contact hours per week.
5. Documents to be delivered to the Puerto Rico Board of Pharmacy:
  - a. Original criminal record certificate issued by the Puerto Rico Police (no more than thirty days from the date the application is filed)
  - b. Affidavit

- c. Postal or bank money order in favor of the Secretary of the Treasury
- d. Original negative certification of assumes (no more than thirty days from the date the application is filed)
- e. Photo 2X2
- f. Birth certificate
- g. Copy of social security card
- h. Registration and registration of the preceptor
- i. Two envelopes (pre-addressed) stamped

6. Authorization from the Pharmacy Examining Board to carry out the pharmacy internship. The authorization confirms the pharmacist as preceptor and the availability of the pharmacy where he will be interned.

7. Record of internship hours: (1000 hours in total)

- a. 500 hours per academic term: Pharmacy Technician Intern must perform at least 36 - 40 hours per week to complete their internship.
- b. Two evaluations per term: First evaluation (250 hours) Second evaluation (500 hours)

**GRADUATION REQUIREMENTS:**

1. Have achieved a minimum GPA of 2.50 in Professional Education courses.
2. Have achieved a minimum GPA of 2.00.

## CURRICULAR STRUCTURE

### EDUCATION COURSES GENERAL

**Prescribed: 15 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
ENGL	1101	Basic English I	60	3
ENGL	1102	Basic English II	45	3
SEMI	1105	College Success and Professional Seminar	45	3
SPAN	1101	Spanish I	60	3
SPAN	1102	Spanish II	45	3

**Sub - total:**

**255 hours 15 credits**

### PROFESSIONAL EDUCATION COURSES

**Prescribed: 68 credits**

COURSES	CODE	COURSE NAME	HOURS CONTACTS	CREDITS
PHAR	1618	Pharmaceutical Mathematics	90	5
PHAR	1619	Pharmacy and Marketing	60	4
PHAR	1620	Pharmaceutical Legislation	45	3
PHAR	1621	Pharmacognosy	60	4
PHAR	1622	Dosage	75	4
PHAR	1623	Dispatch Techniques	105	5
PHAR	1624	Pharmacotherapy I	90	5
PHAR	1625	Pharmacotherapy II	90	5
PHAR	2101	Pharmaceutical Chemistry	45	3
PHAR	2102	Institutional Pharmacy	45	3
PHAR	2103	Sterile Preparations and Aseptic Techniques	45	3
PHAR	2112	Internship I	500	11
PHAR	2113	Internship II	500	11
SEMI	2507	Integration Seminar to the Role of the Pharmacy Technician	30	2

**Sub - total:**

**1,780 hours 68 credits**

**ASSOCIATE DEGREE IN PHARMACY TECHNICIAN**

**SUGGESTED PROGRAM OF STUDY\*\***

**(Study Modality: On ground and Online)**

COURSE	CODE	COURSE NAME	PRE- REQUIREMENTS	CREDITS
<b>FIRST TERM: 15 CREDITS</b>				
PHAR	1618	Mathematics Pharmaceutical	---	5
PHAR	1619	Pharmacy and Marketing	---	4
SEMI	1105	College Success and Professional Seminar	---	3
SPAN	1101	Basic Spanish I	---	3
<b>SECOND TERM: 15 CREDITS</b>				
PHAR	1622	Dosage	PHAR 1618	4
PHAR	1624	Pharmacotherapy I	---	5
PHAR	2101	Pharmaceutical Chemistry	PHAR 1618	3
SPAN	1102	Basic Spanish II	SPAN 1101	3
<b>THIRD TERM: 15 CREDITS</b>				
ENGL	1101	Basic English I	---	3
PHAR	1621	Pharmacognosy	PHAR 1618	4
PHAR	1625	Pharmacotherapy II	PHAR 1624	5
PHAR	2102	Institutional Pharmacy	PHAR 1618	3
<b>FOURTH TERM: 14 CREDITS</b>				
ENGL	1102	Basic English II	ENGL 1101	3
PHAR	1620	Pharmaceutical Legislation	---	3
PHAR	1623	Dispatch Techniques	PHAR 1618 PHAR 1621 PHAR 1622 PHAR 1624 PHAR 1625	5
PHAR	2103	Sterile Preparations and Aseptic Techniques	PHAR 1618 PHAR 2102	3

COURSE	CODE	COURSE NAME	PRE- REQUIREMENTS	CREDITS
<b>FIFTH TERM: 13 CREDITS</b>				
PHAR	2112	Internship I	ENGL 1101 ENGL 1102 PHAR 1618 PHAR 1619 PHAR 1620 PHAR 1621 PHAR 1622 PHAR 1623 PHAR 1624 PHAR 1625 PHAR 2101 PHAR 2102 PHAR 2103 SEMI 1105 SPAN 1101 SPAN 1102	11
SEMI	2507	Seminar Integration to the Role of the Pharmacy Technician	PHAR 1618 PHAR 1619 PHAR 1620 PHAR 1621 PHAR 1622 PHAR 1623 PHAR 1624 PHAR 1625 ENGL 1101 ENGL 1102 SPAN 1101	2

COURSE	CODE	COURSE NAME	PRE- REQUIREMENTS	CREDITS
<b>SIXTH TERM: 11 CREDITS</b>				
PHAR	2113	Internship II	ENGL 1101 ENGL 1102 PHAR 1618 PHAR 1619 PHAR 1620 PHAR 1621 PHAR 1622 PHAR 1623 PHAR 1624 PHAR 1625 PHAR 2101 PHAR 2102 PHAR 2103 PHAR 2112 SEMI 1105 SEMI 2507 SPAN 1101 SPAN 1102	11

**Grand total of Associate Degree in Pharmacy Technician: 83 credits and 2,035 hours.**

\*\* The student does not necessarily have to follow the order of the suggested courses, but the order helps the student to complete their degree in the stipulated time. The student should be aware of taking the courses that have requirements in an order that allows them to continue taking the other courses without problems. The courses without requirements do not have a specific order. The students can enroll in them, in the semester they are offered.

#### **MINIMUM GRADING POLICY**

Students enrolled in the Associate Degree program in Pharmacy Technician must obtain a minimum grade of **C** to pass the following courses:

PHAR 1618	PHAR 1622	PHAR 2101	SEMI 2507
PHAR 1619	PHAR 1623	PHAR 2102	
PHAR 1620	PHAR 1624	PHAR 2103	
PHAR 1621	PHAR 1625	SEMI 1105	

Students enrolled in the Associate Degree program in Pharmacy Technician must obtain a minimum grade of **B** to pass the following courses:

PHAR 2112	PHAR 2113
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## **ASSOCIATE DEGREE IN RADIOLOGICAL TECHNOLOGY**

**CIP Code: 51.0911**

**SOC Code: 29-2034**

**Credits: 82 credits**

**Duration: 96 weeks (2 years)**

**Location: Bayamón, Caguas**

**Modality of Study: On ground**

The associate degree in Radiological Technology will equip students with knowledge of the latest trends in radiological technology and essential skills for their professional development in this field. Students will apply concepts and procedures related to radiographic imaging. Likewise, they will develop the competencies required for successful performance in the certification exam offered by the Licensing Board of Radiological Technologists in Diagnostic Imaging and Radiotherapy Technologists of Puerto Rico once the relevant legal requirements are met. Graduates of this program will be able to practice as radiological technologists upon obtaining their license. Additionally, you can take the exam offered by the American Registry of Radiologic Technologists (ARRT) to practice your profession in the United States.

### **PROGRAM COMPETENCIES**

1. Demonstrate a strong sense of professionalism focused on empathetic and top-quality medical care, grounded in ethical, legal, and moral principles, as well as the skills for continuous education and professional growth.
2. Employ professional knowledge and skills in the judicious use of radiation 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 tools 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, through the integration of values such as respect for dignity and professional integrity.

### **PRACTICE REQUIREMENTS**

To take the practice component of the program, the following current and original documents are required:

1. Negative Criminal Record Certificate
2. Health Certificate
3. Hepatitis B Vaccines
4. Chickenpox Vaccine
5. HIPAA Certificate
6. Cardiopulmonary Resuscitation (CPR) Certification
7. Negative certification of Law 300 - Law on Verification of Credentials and Criminal History of Providers to Children, People with Disabilities and Health Professionals
8. Doping Test \*
9. Respiratory Test \*
10. Influenza Vaccine \*
11. Clinical Practice Cover Letter
12. Practice Authorization Form

**\*Important Note:** Some practice centers may require additional documents. The student needs to revalidate to practice the profession.

### **LICENSURE REQUIREMENTS**

The following documents (original and copy) are required to take the board exam and practice the profession:

1. Be over eighteen (18) years of age and have resided intermittently in Puerto Rico for a period of 6 months immediately before making the request, including sporadic departures.
2. Negative Criminal Record Certificate (less than 6 months since its issuance)
3. Health Certificate
4. Birth Certificate
5. Negative Certification from the Child Support Administration (ASUME) (no later than 30 days after issuance)
6. High School Diploma or Transcript of Credit
7. Associate's Degree Certification and/or Diploma in Radiological Technology obtained at CCU (formerly EDIC College).
8. Official Credit Transcript with the Associate Degree in Radiological Technology. The credit transcript must be sent directly from the university to the Examination Board of Radiology Technologists at the following address:

**Oficina de Reglamentación y Certificación de los Profesionales de la Salud Junta Examinadora de  
Tecnólogos Radiológicos de Puerto Rico  
P.O. BOX 10200, Santurce, Puerto Rico, 00908-0200**

9. Application completed in all its parts, including the Affidavit with a 2x2 photo and two letter-size envelopes with a pre-addressed postage stamp with the applicant's postal address.
10. Payment to the Secretary of the Treasury for admission to revalidation for \$40.00; by postal order or by ATH system. Payment is non-refundable.
11. Request for Reasonable Accommodation, if applicable. This document is available to print at  
<https://www.salud.pr.gov/CMS/DOWNLOAD/8991>

## CURRICULAR STRUCTURE

### GENERAL EDUCATION COURSES

**Prescribed: 19 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
ENGL	1010	Basic English I	45	3
ENGL	1020	Basic English II	45	3
SEMI	1010	Transition to University Life and Professional Training Seminar	15	1
SPAN	1010	Basic Spanish I	45	3
SPAN	1020	Basic Spanish II	45	3
MATH	1010	Basic Mathematics	45	3
ITTE	1031L	Computer Literacy and Laboratory	60	3
<b>Sub-total</b>			<b>300 hours</b>	<b>19 credits</b>

### CORE COURSES

**Prescribed: 18 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
MESE	1010	Medical Terminology	45	3
BIOL	2010	Anatomy and Physiology I	45	3
BIOL	2020	Anatomy and Physiology II	45	3
BIOL	2030	Sectional Anatomy	30	2
BIOL	2030L	Sectional Anatomy Laboratory	30	1
PHYS	1020	Introduction to Physics	45	3
PSYC	2510	Psychology	45	3
<b>Sub-total</b>			<b>285 hours</b>	<b>18 credits</b>

### CONCENTRATION COURSES

**Prescribed: 45 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
RADI	1010	Introduction to Radiology	30	2
RADI	2009	Radiological Physics	45	3
RADI	2010	Patient Care and Management	45	3
RADI	2020	Radiological Positioning and Related Anatomy I	30	2
RADI	2020L	Radiographic Positioning and Related Anatomy I: Laboratory	30	1
RADI	2030	Knowing Imaging Modalities and Equipment	30	2
RADI	2040L	Integrative Seminar: Laboratory	60	2
RADI	2050	Principles of Radiographic Exposure	45	3
RADI	2060	Principles of Radiobiology and Radiographical Protection	30	2
RADI	2070	Radiological Positioning and Related Anatomy II	30	2
RADI	2070L	Radiographic Positioning and Related Anatomy II: Laboratory	30	1

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
RADI	2080P	Clinical Internship I	135	3
RADI	2100	Radiological Positioning and Related Anatomy III	30	2
RADI	2100L	Radiographic Positioning and Related Anatomy III: Laboratory	30	1
RADI	2110P	Clinical Internship II	135	3
RADI	2120	Contrast Media	30	2
RADI	2130	Radiological Pathology	30	2
RADI	2140	Radiological Positioning and Related Anatomy IV	30	2
RADI	2140L	Radiographic Positioning and Related Anatomy IV: Laboratory	30	1
RADI	2150P	Clinical Internship III	135	3
RADI	2160	Pre-Board Seminar	15	1
RADI	2170	Radiographic Quality Assurance and Control	30	2

**Sub-total** **1,035 hours** **45 credits**

COMPONENT	HOURS	CREDITS
General Education Courses	300	19
Core Courses	285	18
Concentration Courses	1,035	45
<b>TOTAL</b>	<b>1,620</b>	<b>82</b>

**ASSOCIATE DEGREE IN RADIOLOGICAL TECHNOLOGY      CURRICULUM: AUGUST  
2024**

**CURRICULUM SEQUENCE \*\***

COURSE	CODE	COURSE NAME	PRE-REQUISITES	CREDITS
<b>FIRST TERM: 14 CREDITS</b>				
SPAN	1010	Basic Spanish I	----	3
ENGL	1010	Basic English I	----	3
MATH	1010	Basic Mathematics	----	3
BIOL	2010	Anatomy And Physiology I	----	3
RADI	1010	Introduction To Radiology	----	2
<b>SECOND TERM: 15 CREDITS</b>				
MESE	1010	Medical Terminology	BIOL 2010	3
PHYS	1020	Introduction To Physics	MATH 1010	3
BIOL	2020	Anatomy And Physiology II	BIOL 2010	3
ITTE	1031L	Computer Literacy and Laboratory	----	3
RADI	2010	Patient Care and Management	RADI 1010	3
<b>THIRD TERM: 14 CREDITS</b>				
SEMI	1010	Transition To University Life and Professional Training Seminar	----	1
SPAN	1020	Basic Spanish II	SPAN 1010	3
RADI	2020	Radiographic Positioning and Related Anatomy I	BIOL 2010 BIOL 2020 MESE 1010 PHYS 1020 RADI 2010	2
RADI	2020L	Radiographic Positioning and Related Anatomy I: Laboratory	BIOL 2010 BIOL 2020 MESE 1010 PHYS 1020 RADI 2010	1
RADI	2009	Radiological Physics	MATH 1010 PHYS 1020 RADI 1010	3
RADI	2030	Knowing Imaging Modalities and Equipment	RADI 1010	2
RADI	2040L	Integrative Seminar: Laboratory	BIOL 2010 BIOL 2020 MESE 1010 PHYS 1020 RADI 1010 RADI 2010 RADI 2020 RADI 2020L	2

**FOURTH TERM: 14 CREDITS**

RADI	2080P	Clinical Internship I	BIOL 2010 BIOL 2020 MESE 1010 PHYS 1020 RADI 1010 RADI 2009 RADI 2010 RADI 2020 RADI 2020L RADI 2040L	3
PSYC	2510	Psychology	----	3
RADI	2050	Principles of Radiographic Exposure	PHYS 1020 RADI 1010 RADI 2009	3
RADI	2060	Principles of Radiobiology and Radiological Protection	PHYS 1020 RADI 1010 RADI 2009	2
RADI	2070	Radiographic Positioning and Related Anatomy II	BIOL 2010 BIOL 2020 MESE 1010 PHYS 1020 RADI 1010 RADI 2009 RADI 2010 RADI 2020 RADI 2020L	2
RADI	2070L	Radiographic Positioning and Related Anatomy II: Laboratory	BIOL 2010 BIOL 2020 MESE 1010 PHYS 1020 RADI 1010 RADI 2009 RADI 2010 RADI 2020 RADI 2020L	1

**FIFTH TERM: 12 CREDITS**

RADI	2110P	Clinical Internship II	BIOL 2010 BIOL 2020 PHYS 1020 MESE 1010 RADI 1010 RADI 2009 RADI 2010 RADI 2020 RADI 2020L RADI 2030 RADI 2040L RADI 2050 RADI 2060 RADI 2070 RADI 2070L RADI 2080P	3
RADI	2120	Contrast Media	RADI 1010 RADI 2010 BIOL 2010 BIOL 2020 MESE 1010	2
RADI	2170	Radiographic Quality Assurance and Control	RADI 2050	2
RADI	2100	Radiographic Positioning and Related Anatomy III	BIOL 2010 BIOL 2020 MESE 1010 PHYS 1020 RADI 1010 RADI 2009 RADI 2010 RADI 2020 RADI 2020L RADI 2070 RADI 2070L	2
RADI	2100L	Radiographic Positioning and Related Anatomy III: Laboratory	BIOL 2010 BIOL 2020 MESE 1010 PHYS 1020 RADI 1010 RADI 2009 RADI 2010 RADI 2020 RADI 2020L RADI 2070 RADI 2070L	1
RADI	2130	Radiological Pathology	BIOL 2010 BIOL 2020 RADI 2170	2

**SIXTH TERM: 13 CREDITS**

RADI	2150P	Clinical Internship III	BIOL 2010 BIOL 2020 MESE 1010 PHYS 1020 RADI 1010 RADI 2009 RADI 2010 RADI 2020 RADI 2020L RADI 2030 RADI 2040L RADI 2050 RADI 2060 RADI 2070 RADI 2070L RADI 2080P RADI 2100 RADI 2100L RADI 2110P RADI 2120 or RADI 2200 RADI 2170	3
BIOL	2030	Sectional Anatomy	BIOL 2020	2
BIOL	2030L	Sectional Anatomy Laboratory	BIOL 2020	1
ENGL	1020	Basic English II	ENGL 1010	3
RADI	2140	Radiographic Positioning and Related Anatomy IV	BIOL 2010 BIOL 2020 MESE 1010 PHYS 1020 RADI 1010 RADI 2009 RADI 2010 RADI 2020 RADI 2020L RADI 2070 RADI 2070L RADI 2100 RADI 2100L RADI 2120 or RADI 2200	2

RADI	2140L	Radiographic Positioning and Related Anatomy IV: Laboratory	BIOL 2010 BIOL 2020 MESE 1010 PHYS 1020 RADI 1010 RADI 2009 RADI 2010 RADI 2020 RADI 2020L RADI 2070 RADI 2070L RADI 2100 RADI 2100L RADI 2120 or RADI 2200	1
RADI	2160	Pre-Board Seminar	BIOL 2010 BIOL 2020 MESE 1010 PHYS 1020 RADI 1010 RADI 2009 RADI 2010 RADI 2020 RADI 2020L RADI 2030 RADI 2040L RADI 2050 RADI 2060 RADI 2070 RADI 2070L RADI 2080P RADI 2100 RADI 2100L RADI 2110P RADI 2120 or RADI 2200 RADI 2170	1

**Grand Total of the Associate Degree in Radiological Technology: 1,620 hours y 82 credits**

\*\*The student does not necessarily have to follow the suggested course order, but the order helps them complete their degree in the stipulated time. The student must be aware of taking the courses that have prerequisites in an order that allows them to continue taking the other courses without problems. Courses without prerequisites have no specific order. The student can register for them in the term that they are offered.

### **MINIMUM GRADING POLICY**

Students enrolled in the Associate Degree in Radiological Technology must obtain at least a grade of C (70% or more) upon passing all Core and Concentration courses, except the clinical practice or internship courses which must be passed with B (80%) or more.

The following courses must be passed with a grade of C or higher:

MESE 1010	BIOL 2010	BIOL 2020	BIOL 2030	BIOL 2030L	PHYS 1020
PSYC 2510	RADI 1010	RADI 2009	RADI 2010	RADI 2020	RADI 2020L
RADI 2030	RADI 2040L	RADI 2050	RADI 2060	RADI 2070	RADI 2070L
RADI 2100	RADI 2100L	RADI 2120	RADI 2130	RADI 2140	RADI 2140L
RADI 2160	RADI 2170				

The following courses must be passed with a grade of B or higher: RADI 2080P

RADI 2110P RADI 2150P

## **ASSOCIATE DEGREE IN MEDICAL SONOGRAPHY**

**CIP Code: 51.0910**

**SOC Code: 29-2032**

**Credits: 80 credits**

**Duration: 96 weeks (2 years)**

**Location: Bayamón, Caguas**

**Modality of Study: On ground**

The associate degree program in Medical Sonography will train students in the physics of ultrasound and the instrumentation of sonographic equipment, as well as patient management and care. Additionally, students will develop skills for performing abdominal, gynecological, obstetrical, and superficial structure sonographic studies using new technologies and diagnostic imaging modalities within the field of diagnostic medical sonography, incorporating the latest advancements in this field. Graduates of this program will be able to practice as licensed general diagnostic medical sonographers in Puerto Rico, whether in medical offices, hospitals, or diagnostic imaging centers, among others, after passing both revalidation exams offered by the Board of Radiological Technologists in Diagnostic Imaging and Radiotherapy Technologists of Puerto Rico. They can choose to take the Sonography Principles & Instrumentation (SPI) exam offered by the American Registry of Diagnostic Medical Sonography (ARDMS). They can also take the exam offered by the American Registry of Radiologic Technologists (ARRT) to practice their profession in the United States.

### **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. Analyze information and procedures related to the interpretation of medical orders, anatomy and physiology, laboratory results, creation of medical images, and preliminary diagnostic impressions, among others, in a logical and critical manner.
3. Communicate the preliminary results of studies to the medical team, as well as provide support and guidance to patients about the procedures to be performed in an assertive and efficient manner, both orally and in writing.
4. Utilize available technological and computer-based tools, incorporating methodological

advances in procedures related to diagnostic medical ultrasound and imaging.

5. Demonstrate collaborative work skills for the diagnosis, treatment, and comprehensive care of patients with a strong sense of responsibility, in compliance with the HIPAA law and all other laws related to their profession, while maintaining good moral and ethical judgment.

## PRACTICE REQUIREMENTS

To take the practice component of the program, the following current and original documents are required:

1. Negative Criminal Record Certificate
2. Health Certificate
3. Hepatitis B Vaccines
4. Chickenpox Vaccine
5. HIPAA Certificate
6. Cardiopulmonary Resuscitation (CPR) Certification
7. Negative certification of Law 300 - Law on Verification of Credentials and Criminal History of Providers to Children, People with Disabilities and Health Professionals
8. Doping Test \*
9. Respiratory Test \*
10. Influenza Vaccine \*
11. Covid-19 Vaccine (Three Doses)
12. Particle Fit Test\*
13. Clinical Practice Cover Letter
14. Practice Authorization Form

**\*Important Note:** Some practice centers may require additional documents. The student needs to revalidate to practice the profession.

## **LICENSURE REQUIREMENTS**

The following documents (original and copy) are required to revalidate and practice the profession:

1. Be over eighteen (18) years of age and have resided intermittently in Puerto Rico for a period of 6 months immediately before making the request, including sporadic departures.
2. Negative Criminal Record Certificate (less than 6 months since its issuance)
3. Health Certificate
4. Birth Certificate
5. Negative Certification from the Child Support Administration (ASUME) (no later than 30 days after issuance)
6. High School Diploma or Transcript of Credit
7. Certification and/or Diploma in associate degree program in Medical Sonography obtained at CCU.
8. Official Credit Transcript with the associate degree program in Medical Sonography. The credit transcript must be sent directly from the university to the Examination Board of Radiology Technologists at the following address:

**Oficina de Reglamentación y Certificación de los Profesionales de la Salud  
Junta Examinadora de Tecnólogos Radiológicos de Puerto Rico  
P.O. BOX 10200, Santurce, Puerto Rico, 00908-0200**

9. Approved result of Physical Examination (to request a general sonographer exam)
10. Application completed in all its parts, including the Affidavit with a 2x2 photo and two letter-size envelopes with a pre-addressed postage stamp with the applicant's postal address.
11. Payment to the Secretary of the Treasury for admission to revalidation for \$40.00 (for each specialty); by postal order or by ATH system. Payment is non-refundable.
12. Request for Reasonable Accommodation, if applicable. This document is available to print at <https://www.salud.pr.gov/CMS/DOWNLOAD/8991>

## CURRICULAR STRUCTURE

### GENERAL EDUCATION COURSES

**Prescribed: 19 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
ENGL	1010	Basic English I	45	3
ENGL	1020	Basic English II	45	3
ITTE	1031L	Computer Literacy and Laboratory	60	3
MATH	1010	Basic Mathematics	45	3
SEMI	1010	Transition to University Life and Professional Training Seminar	15	1
SPAN	1010	Basic Spanish I	45	3
SPAN	1020	Basic Spanish II	45	3
<b>Sub-total</b>			<b>300 hours</b>	<b>19 credits</b>

### CORE COURSES

**Prescribed: 18 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
MESE	1010	Medical Terminology	45	3
BIOL	2010	Human Anatomy and Physiology I	45	3
BIOL	2020	Human Anatomy and Physiology II	45	3
BIOL	2030	Sectional Anatomy	30	2
BIOL	2030L	Sectional Anatomy Laboratory	30	1
PHSC	2030	Ultrasound Physics and Instrumentation I	45	3
PHSC	2040	Ultrasound Physics and Instrumentation II	45	3
<b>Sub-total</b>			<b>285 hours</b>	<b>18 credits</b>

### CONCENTRATION COURSES

**Prescribed: 43 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
SONO	1020	Introduction to Medical Sonography	45	3
SONO	1030	Patient Management and Care in Sonographic Imaging	45	3
SONO	1040L	Abdominal Sonography and Laboratory	75	4
SONO	2020L	Gynecological Sonography and Laboratory	75	4
SONO	2030L	Laboratory of Integration of Clinical Skills in Medical Sonography	60	2
SONO	2050L	Obstetric Sonography and Laboratory	75	4
SONO	2040P	Clinical Practice I: Medical Sonography	90	2
SONO	2070L	Sonography of Superficial Structures and Laboratory	75	4
SONO	2071	Pathology Applied to Medical Sonography I	45	3
SONO	2060P	Clinical Practice II: Medical Sonography	90	2
SONO	2072	Pathology Applied To Medical Sonography II	45	3

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
SONO	2080	Pre-Certification Exam Seminar in Medical Sonography	30	2
SONO	2090	Special Procedures In Medical Sonography	30	2
SONO	3000P	Clinical Practice III: Medical Sonography	225	5

**Sub-total** **1,005 hours** **43 credits**

COMPONENT	HOURS	CREDITS
General Education Courses	300	19
Core Courses	285	18
Concentration Courses	1,005	43
<b>TOTAL</b>	<b>1,590</b>	<b>80</b>

**ASSOCIATE DEGREE IN MEDICAL SONOGRAPHY**  
**CURRICULUM: AUGUST 2024**

**CURRICULUM SEQUENCE\*\***

COURSE	CODE	COURSE NAME	PRE-REQUISITES	CREDITS
<b>FIRST TERM: 15 CREDITS</b>				
ENGL	1010	Basic English I	----	3
ITTE	1031L	Computer Literacy and Laboratory	----	3
BIOL	2010	Human Anatomy and Physiology I	----	3
SONO	1020	Introduction to Medical Sonography	----	3
SONO	1030	Patient Management and Care in Sonographic Imaging	----	3
<b>SECOND TERM: 15 CREDITS</b>				
MATH	1010	Basic Mathematics	----	3
MESE	1010	Medical Terminology	----	3
SPAN	1010	Basic Spanish I	----	3
BIOL	2020	Human Anatomy and Physiology II	BIOL 2010	3
ENGL	1020	Basic English II	ENGL 1010	3
<b>THIRD TERM: 14 CREDITS</b>				
SEMI	1010	Transition to University Life and Professional Training Seminar	----	1
SONO	1040L	Abdominal Sonography and Laboratory	SONO 1020 SONO 1030 MESE 1010	4
PHSC	2030	Ultrasound Physics and Instrumentation I	MATH 1010	3
SONO	2020L	Gynecological Sonography and Laboratory	SONO 1030 SONO 1040L	4
SONO	2030L	Laboratory of Integration of Clinical Skills in Medical Sonography	SONO 1020 SONO 1030 SONO 1040L MESE 1010	2
<b>FOURTH TERM: 12 CREDITS</b>				
SONO	2040P	Clinical Practice I: Medical Sonography	SONO 2020L SONO 2030L	2
BIOL	2030	Sectional Anatomy	BIOL 2020	2
BIOL	2030L	Sectional Anatomy Laboratory	BIOL 2020	1
PHSC	2040	Ultrasound Physics and Instrumentation II	MATH 1010 PHSC 2030 SONO 1020	3
SONO	2050L	Obstetric Sonography and Laboratory	SONO 1020 SONO 1030 SONO 2020L MESE 1010 PHSC 2030	3

<b>FIFTH TERM: 12 CREDITS</b>				
SONO	2060P	Clinical Practice II: Medical Sonography	SONO 2040P	2
SONO	2070L	Sonography of Superficial Structures and Laboratory	SONO 2030L PHSC 2040	4
SPAN	1020	Basic Spanish II	SPAN 1010	3
SONO	2071	Pathology Applied to Medical Sonography I	SONO 1040L SONO 2020L SONO 2050L SONO 2070L	3
<b>SIXTH TERM: 12 CREDITS</b>				
SONO	3000P	Clinical Practice III: Medical Sonography	SONO 2060P	5
SONO	2080	Pre-Certification Exam Seminar in Medical Sonography	SONO 1040L SONO 2020L SONO 2050L SONO 2070L SONO 2071 PHSC 2040	2
SONO	2090	Special Procedures in Medical Sonography	SONO 1040L SONO 2020L SONO 2050L SONO 2070L SONO 2071	2
SONO	2072	Patología Aplicada a la Sonografía Médica II	SONO 2071	3

**Grand Total of the associate degree in Medical Sonography: 1,590 hours y 80 credits**

\*\*The student does not necessarily have to follow the suggested course order, but the order helps them complete their degree in the stipulated time. The student must be aware of taking the courses that have prerequisites in an order that allows them to continue taking the other courses without problems. Courses without prerequisites have no specific order. The student can register for them in the term that they are offered.

## **MINIMUM GRADING POLICY**

Students enrolled in the associate degree in Medical Sonography must obtain at least a grade of C (70% or more) upon passing all Core and Concentration courses, except the clinical practice or internship courses which must be passed with B (80%) or more.

The following courses must be passed with a grade of C or higher:

MESE 1010	BIOL 2010	BIOL 2020	BIOL 2030	BIOL 2030L	PHSC 2030
PHSC 2040	SONO 1020	SONO 1030	SONO 1040L	SONO 2020L	SONO 2030L
SONO 2050L	SONO 2070L	SONO 2071	SONO 2072	SONO 2080	SONO 2090

The following courses must be passed with a grade of B or higher:

SONO 2040P SONO 2060P SONO 3000

## **ASSOCIATE DEGREE IN OPTICAL SCIENCE**

**CIP Code: 51.1801**

**SOC Code: 29-2081**

**Credits: 80 credits**

**Duration: 96 weeks (2 years)**

**Location: Bayamón and Caguas**

**Modality of Study: On ground and Online**

The associate degree program in Optical Sciences will prepare students with the theoretical and practical knowledge for the roles required in optical offices and/or optical laboratories. Students will employ their knowledge and technical skills in providing optical aids for the maintenance and/or improvement of a patient's visual health. They will apply scientific knowledge, clinical procedures, as well as skills and abilities to work in an optical office for fitting eyeglasses, contact lenses, and ophthalmic accessories. Graduates of this program will be prepared to work in an optical office or laboratory. Additionally, they will be able to take the certification examination offered by the Puerto Rico Board of Opticians to obtain their license once they meet the legal requirements.

### **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.

### **PRACTICE REQUIREMENTS**

To take the practice component of the program, the following current and original documents are required:

1. Negative Criminal Record Certificate
2. Health Certificate
3. Cardiopulmonary Resuscitation (CPR) Certification
4. HIPAA Certificate
5. Negative certification of Law 300 - Law on Verification of Credentials and Criminal History of Providers to Children, People with Disabilities and Health Professionals

**\*Important Note:** Some practice centers may require additional documents. The student needs to revalidate to practice the profession.

#### **LICENSURE REQUIREMENTS**

The following documents (original and copy) are required to revalidate and practice the profession:

1. Be over eighteen (18) years of age and have resided intermittently in Puerto Rico for a period of 6 months immediately before making the request, including sporadic departures.
2. Negative Criminal Record Certificate (less than 3 months since its issuance)
3. Health Certificate (less than 1 year since its issuance)
4. Birth Certificate
5. Negative Certification from the Child Support Administration (ASUME) (no later than 30 days after issuance)
6. High School Diploma or Transcript of Credit
7. Certification and/or Diploma in associate degree program in Optical Science obtained at CCU.
8. Official Credit Transcript with the associate degree program in Optical Science. The credit transcript must be sent directly from the university to the Examination Board of Optics at the following address:

**Junta Examinadora de Ópticos de Puerto Rico  
P.O. BOX 10200, Santurce, Puerto Rico, 00908-0200**

9. Application completed in all its parts, including the Affidavit with a 2x2 photo and two letter-size envelopes with a pre-addressed postage stamp with the applicant's postal address.
10. Payment to the Secretary of the Treasury for admission to revalidation for \$25.00; by postal order, ATH, or credit card.
  - a. Pay for the test at a cost of:
    - i. Stage I. \$25.00 (Theoretical Test)
    - ii. Stage II. \$25.00 (Practical Test) – if you do not pass Stage I, it cannot be offered until Stage I is approved.
    - iii. Any person who fails any of the parts of the exam on three occasions will not be able to take a new exam until he/she presents to the Examination Board reliable proof that he/she has taken and passed the remedial course, or courses recognized or accredited by it.
    - iv. If you have any questions, please contact the Examination Board of Optics.

**CURRICULAR STRUCTURE**  
**GENERAL EDUCATION COURSES**

**Prescribed: 25 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
BIOL	1010	Introduction to Biology	45	3
ENGL	1010	Basic English I	45	3
ENGL	1020	Basic English II	45	3
ITTE	1031L	Computer Literacy and Laboratory	60	3
MATH	1010	Basic Mathematics	45	3
HUMA	1010	Humanities I	45	3
SEMI	1010	Transition to University Life and Professional Training Seminar	15	1
SPAN	1010	Basic Spanish I	45	3
SPAN	1020	Basic Spanish II	45	3

**Sub-total** **390 hours** **25 credits**

**CORE COURSES**

**Prescribed: 9 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
PHYS	1020	Introduction To Physics	45	3
BUAD	2250	Human Relations	45	3
BUMA	1050	Introduction To Entrepreneurship	45	3

**Sub-total** **135 hours** **9 credits**

**CONCENTRATION COURSES**

**Prescribed: 46 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
OPTI	2000	Anatomy and Physiology of the Eye	45	3
OPTI	2020	Ophthalmic Materials I	45	3
OPTI	2020L	Ophthalmic Materials I: Laboratory	30	1
OPTI	2030	Contact Lenses	45	3
OPTI	2030L	Contact Lenses: Laboratory	60	2
OPTI	2010	Principles of Physical Optics	45	3
OPTI	2040	Ophthalmic Materials II	30	2
OPTI	2040L	Ophthalmic Materials II: Laboratory	60	2
OPTI	2050L	Medical Billing for Optical Sciences and Laboratory	60	3
OPTI	2060	Vision Abnormalities	45	3
OPTI	2150L	Pre-Internship Laboratory in Frame Sizing	60	2
OPTI	2110	Prescription Dispensing I	45	3
OPTI	2110L	Prescription Dispensing I: Laboratory	60	2
OPTI	2100	Laws Regulating the Optic Practice	30	2
OPTI	2160	Prescription Dispensing II	45	3
OPTI	2120P	Clinical Practice and Seminar	405	9

**Sub-total** **1,110 hours** **46 credits**

COMPONENT	HOURS	CREDITS
General Education Courses	390	25
Core Courses	135	9
Concentration Courses	1,110	46
<b>TOTAL</b>	<b>1,635</b>	<b>80</b>

**ASSOCIATE DEGREE IN OPTICAL SCIENCE**  
**CURRICULUM: AUGUST 2024**

**CURRICULUM SEQUENCE\*\***

COURSE	CODE	COURSE NAME	PRE-REQUISITES	CREDITS
<b>FIRST TERM: 15 CREDITS</b>				
SPAN	1010	Basic Spanish I	----	3
ENGL	1010	Basic English I	----	3
MATH	1010	Basic Mathematics	----	3
BIOC	1010	Introduction To Biology	----	3
ITTE	1031L	Computer Literacy and Laboratory	----	3
<b>SECOND TERM: 13 CREDITS</b>				
SEMI	1010	Transition to University Life and Professional Training Seminar	----	1
SPAN	1020	Basic Spanish II	SPAN 1010	3
ENGL	1020	Basic English II	INGL 1010	3
OPTI	2000	Anatomy and Physiology of The Eye	BIOC 1010	3
PHYS	1020	Introduction To Physics	MATH 1010	3
<b>THIRD TERM: 15 CREDITS</b>				
OPTI	2010	Principles Of Physical Optics	MATH 1010 OPTI 2000 PHYS 1020	3
OPTI	2020	Ophthalmic Materials I	OPTI 2000 PHYS 1020	3
OPTI	2020L	Ophthalmic Materials I: Laboratory	OPTI 2000 PHYS 1020	1
BUAD	2250	Human Relations	----	3
OPTI	2030	Contact Lenses	OPTI 2000 OPTI 2010 OPTI 2020 OPTI 2020L PHYS 1020	3
OPTI	2030L	Contact Lenses: Laboratory	OPTI 2000 OPTI 2010 OPTI 2020 OPTI 2020L PHYS 1020	2

<b>FOURTH TERM: 13 CREDITS</b>					
OPTI	2060	Vision Abnormalities	BIOL 1010 OPTI 2000	3	
OPTI	2040	Ophthalmic Materials II	OPTI 2000 OPTI 2010 OPTI 2020 OPTI 2020L PHYS 1020	2	
OPTI	2040L	Ophthalmic Materials II: Laboratory	OPTI 2000 OPTI 2010 OPTI 2020 OPTI 2020L PHYS 1020	2	
HUMA	1010	Humanidades I	----	3	
OPTI	2050L	Facturación Médica para Ciencias Ópticas y Laboratorio	ITTE 1031L OPTI 2000 OPTI 2060	3	
<b>FIFTH TERM: 12 CREDITS</b>					
OPTI	2150L	Pre-Internship Laboratory in Frame Sizing	BIOL 1010 OPTI 2000 OPTI 2010 OPTI 2020 OPTI 2020L OPTI 2040 OPTI 2040L PHYS 1020	2	
BUMA	1050	Introduction to Entrepreneurship	----	3	
OPTI	2100	Laws Regulating the Optic Practice	----	2	
OPTI	2110	Prescription Dispensing I	BIOL 1010 OPTI 2000 OPTI 2010 OPTI 2020 OPTI 2020L OPTI 2030 OPTI 2030L OPTI 2040 OPTI 2040L OPTI 2150L	3	
OPTI	2110L	Prescription Dispensing I: Laboratory	BIOL 1010 OPTI 2000 OPTI 2010 OPTI 2020 OPTI 2020L OPTI 2030 OPTI 2030L OPTI 2040 OPTI 2040L OPTI 2150L	2	

<b>SIXTH TERM: 12 CREDITS</b>					
OPTI	2120P	Clinical Practice and Seminar	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		9
OPTI	2160	Prescription Dispensing II	OPTI 2110 OPTI 2110L		3

**Grand Total of the associate degree in Optical Science: 1,635 hours y 80 credits**

\*\*The student does not necessarily have to follow the suggested course order, but the order helps them complete their degree in the stipulated time. The student must be aware of taking the courses that have prerequisites in an order that allows them to continue taking the other courses without problems. Courses without prerequisites have no specific order. The student can register for them in the term that they are offered.

**MINIMUM GRADING POLICY**

Students enrolled in the associate degree in Optical Science must obtain at least a grade of C (70% or more) upon passing all Core and Concentration courses, except the clinical practice or internship courses which must be passed with B (80%) or more.

The following courses must be passed with a grade of C or higher:

PHYS 1020	BUAD 2250	BUMA 1050	OPTI 2000	OPTI 2020	OPTI 2020L
OPTI 2030	OPTI 2030L	OPTI 2010	OPTI 2040	OPTI 2040L	OPTI 2050L
OPTI 2060	OPTI 2150L	OPTI 2110	OPTI 2110L	OPTI 2100	OPTI 2160

The following courses must be passed with a grade of B or higher: OPTI 212

## **ASSOCIATE DEGREE IN CARDIAC AND VASCULAR TECHNOLOGY**

**Credits: 91**

**Duration: Two years**

**Location: Caguas, Bayamon**

**Study Modality: Face to Face**

The main purpose of the Associate Degree in Cardiac and Vascular Technology is to train competent and committed professionals, who contribute to the provision of direct services using new technologies and non-invasive modalities for cardiac and vascular imaging. The program consists of 91 credits. Classes are divided into general courses, related courses, professional courses, and clinical practice. Upon completion of 91 credits, the student will receive an associate degree in Cardiac and Vascular Technology.

The student is trained to perform non-invasive diagnostic tests to detect heart and vascular diseases and, in this way, help to avoid the complications of those suffering from these conditions. This program in general will provide the student with the basic knowledge related to non-invasive diagnostic studies highlighting the vascular anatomy, its normal flow pattern, in addition to being able to recognize the main pathologies that affect them and the technical procedures for their evaluation.

This program enables the student to acquire the necessary competencies that will help them challenge the revalidation exam offered by the Examining Board of Radiological Technologists in Diagnostic Imaging and Radiotherapy Technologists of Puerto Rico and obtain their license once they complete the requirements of the law. It also trains the student to acquire the necessary competencies that will help them challenge the tests offered by the ARDMS (American Registry of Diagnostic Medical Sonographers).

### **PROGRAM OBJECTIVES**

1. To develop a professional with basic clinical knowledge and skills in the disciplines of sonography and cardiac and vascular technology so that they can offer scientifically based services according to the technological advances of the moment.
2. Develop competencies in the student so that his behavior is professional alone when interacting with his patients, colleagues and other members of the team allied to health.
3. Develop in the student the skills to provide a service sensitive to the particular needs of the patient and respect human dignity without discrimination.

4. Develop the student's ability to work effectively with the work team, including problem solving skills.

## **PRACTICE REQUIREMENTS**

To take the practice component of the program, the following original and current documents are required:

1. Negative Certificate of Criminal Records
2. Health Certificate
3. Hepatitis B Vaccination
4. HIPAA Certificate
5. Cardiopulmonary Resuscitation (CPR) Certification
6. Doping Test\*
7. Respiratory Test\*
8. Influenza Vaccine\*
9. Varicella Vaccine\*
10. Covid 19 vaccine\*
11. Particle Setting Test\*
12. Negative certification of Act 300-Credentialing and Criminal History Check Act for Providers to Children, People with Disabilities, and Health Care Professionals.
13. Clinical Practice Cover Letter
14. Practice Authorization Form

**\*Important Note:** Some practice sites may require additional documents. The student needs to revalidate to practice the profession.

## **BOARD EXAM REQUIREMENTS**

The following documents (original and copy) are required to revalidate and practice the profession:

1. Negative Criminal Certificate (less than 3 months from its issuance)
2. Health Certificate
3. Birth Certificate
4. Negative Certification der the Administration of Child Support (ASUME)

5. High School Credit Transcript
6. Credit Transcript or Diploma or Certification of the Associate Degree in Technology  
Cardiac and Vascular obtained at CCU
7. Application completed in all its parts, including the Affidavit with 2x2 photo and two letter-size envelopes with postage stamp.
8. Payment to the Secretary of the Treasury in the amount of \$ 30.00 dollars for the right to a revalidation examination by money order, ATH or credit card.

## CURRICULAR STRUCTURE

### GENERAL EDUCATION COURSES

**Prescribed: 24 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
ENGL	1101	Basic English I	60	3
ENGL	1102	Basic English II	45	3
SEMI	1105	College Success and Professional Seminar	45	3
SPAN	1101	Basic Spanish I	60	3
SPAN	1102	Basic Spanish II	45	3
PSYC	2014	Principles of Psychology	45	3
MATH	2010	Introductory Algebra	45	3
COMP	1205	Introduction to Computers	60	3
<b>Sub-total</b>			<b>405 hours</b>	<b>24 credits</b>

### RELATED COURSES

**Prescribed: 16 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
MEDT	2000	Medical Terminology	30	2
BIOL	1601	Human Anatomy and Physiology I	60	3
BIOL	1602	Human Anatomy and Physiology II	60	3
ANAT	2040	Anatomy and Physiology of the Heart	30	2
PHSC	2030	Ultrasound Physics and Instrumentation I	45	3
PHSC	2040	Ultrasound Physics and Instrumentation II	45	3
<b>Sub-total</b>			<b>270 hours</b>	<b>16 credits</b>

### PROFESSIONAL COURSES

**Prescribed: 46 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
SONO	2200	Handling and Care of the Patient in Pictures Sonographic	45	3
CARD	2150	Introduction to Sonography Cardiac and Vascular	45	3
CARD	2160	Electrocardiography and Holter Basic	60	3
CARD	2170	Lower Extremities Vascular Sonography and Clinical Applications	90	4
CARD	2180	Basic Echocardiography	90	4
CARD	2210	Sonographic Evaluation of Cardiac Pathologies	90	4

CARD	2190	Upper Extremities Vascular Sonography and Clinical Application	90	4
CARD	2060	Handling of Special Equipment	45	2
CARD	2300	Clinical Practice I	225	5
CARD	2220	Cerebrovascular Sonography and Clinical Applications	90	4
CARD	2240	Cardiac Pharmacology and Procedures	30	2
CARD	2250	Abdominal Doppler	90	4
CARD	2350	Clinical Practice II	225	5
CARD	2270	Pre-Board Seminar	30	2
CARD	2070	Cardiac Sonography Laboratory	60	2

**Sub-total**

**1.305 hours**

**51 credits**

## ASSOCIATE DEGREE IN CARDIAC AND VASCULAR TECHNOLOGY

### SUGGESTED PROGRAM OF STUDIES\*\*

**(Study Modality: Face to Face)**

COURSE	CODE	COURSE NAME	PRE- REQUIREMENTS	CREDITS
<b>FIRST TERM: CREDIT 15</b>				
CARD	2150	Introduction to Cardiac and Vascular Sonography	----	3
MATH	2010	Introductory Algebra	----	3
BIOL	1601	Human Anatomy and Physiology I	----	3
SONO	2200	Patient Management and Care in Sonographic Imaging	----	3
SEMI	1105	College Success and Professional Seminar	----	3
<b>SECOND TERM: 14 CREDITS</b>				
COMP	1205	Introduction to Computers	----	3
ENGL	1101	Basic English I	----	3
BIOL	1602	Human Anatomy and Physiology II	BIOL 1601	3
MEDT	2000	Medical Terminology	----	2
PHSC	2030	Ultrasound Physics and Instrumentation I	MATH 2010	3
<b>THIRD TERM: 16 CREDITS</b>				
ANAT	2040	Anatomy and Physiology of the Heart	BIOL 1602	2
PHSC	2040	Ultrasound Physics and Instrumentation II	PHSC 2030	3
ENGL	1102	Basic English II	ENGL 1101	3
PSYC	2014	Principles of Psychology	----	3
CARD	2160	Electrocardiography and Basic Holter	CARD 2150, MEDT 2000, SONO	3
CARD	2240	Pharmacology and Cardiac Procedures	CARD 2150, SONO	2

COURSE	CODE	COURSE NAME	PRE-REQUIREMENTS	CREDITS
<b>FOURTH TERM: 16 CREDITS</b>				
SPAN	1101	Basic Spanish I	----	3
CARD	2060	Management of Special Equipment	----	2
CARD	2180	Basic Echocardiography	CARD 2150, MEDT 2000, ANAT 2040, SONO 2200	4
CARD	2210	Sonographic Evaluation of Cardiac Pathologies	CARD 2150, ANAT 2040, MEDT 2000, SONO 2200	4
CARD	2070	Cardiac Sonography: Laboratory	PHSC 2040, SONO 2200, CARD 2150, CARD 2160	2
<b>FIFTH TERM - 16 CREDITS</b>				
CARD	2190	Upper Extremities Vascular Sonography and Clinical Application	CARD 2150, SONO 2200	4
SPAN	1102	Basic Spanish II	SPAN 1101	3
CARD	2220	Cerebral Vascular Sonography and Clinical Applications	CARD 2150, PHSC 2040, MEDT 2000	4
CARD	2300	Clinical Practice I	CARD 2070	5
<b>SIXTH TERM: 15 CREDITS</b>				
CARD	2170	Lower Extremity Vascular Sonography and Clinical Application	CARD 2150, SONO 2200	4
CARD	2250	Abdominal Doppler	CARD 2150, SONO 2200	4
CARD	2350	Clinical Practice II	All courses of the program	5
CARD	2270	Pre-Board Seminar	CARD 2060, CARD 2150, CARD 2160, CARD 2180, CARD 2190, CARD 2210, CARD 2220, CARD 2300, CARD 2240, CARD 2070	2

**Grand total of Associate Degree in Cardiac Vascular Technology: 91 credits and 1,980 hours**

\*\* The student does not necessarily have to follow the order of the suggested courses, but the order helps the student to complete their degree in the stipulated time. The student should be aware of taking the courses that have requirements in an order that allows them to continue taking the other courses without problems. The courses without requirements do not have a specific order. The students can enroll in them, in the semester they are offered.

**MINIMUM GRADING POLICY**

Students enrolled in the Associate Degree in Cardiac and Vascular Technology must obtain at least a grade of C (70% or higher) to pass all professional and concentration courses, except those clinical practice courses that must be approved with B (80%) or more.

The following courses must be approved with a grade of C or higher:

SEMI 1105	MEDT 2000	BIOL 1601	BIOL 1602	PHSC 2030	PHSC 2040
ANAT 2040	CARD 2150	SONO 2200	CARD 2160	CARD 2240	CARD 2060
CARD 2180	CARD 2210	CARD 2070	CARD 2190	CARD 2220	CARDD 2170
CARD 2250	CARD 2270	SEMI 1105			

The following courses must be approved with a grade of B or higher:

CARD 2300 CARD 2350

**VOCATIONAL TECHNICAL CERTIFICATE IN MEDICAL SECRETARY WITH MEDICAL  
INSURANCE BILLING**

**Credits: 56**

**Duration: One year**

**Location: Caguas**

**Study Modality: Face to Face**

This curriculum provides the student with the opportunity to prepare for a short time in two careers within the same study program. Through the curriculum, you are offered the opportunity to work both in the secretarial field and in billing to medical plans. The Program has a duration of 12 months. At the end of the course, the student receives a Diploma of Medical Secretarial with Billing of Medical Plans.

The Secretarial Medical area has specialized courses in Basic Typing, Intermediate and Advanced Typing, Business Mathematics, Introduction to Computers, Document Management, Office Administration, Spanish and Business English. One of the characteristics that distinguishes the typing courses is the application of the Microsoft Word program, which is currently the first in use in the modern office.

In the area of Medical Plan Billing, the curriculum has specialized courses in Medical Terminology, Credit and Collection in Medical Plan Billing, Coding, Medical Record and Secretarial Medical Practice in medical offices, laboratories, and hospitals. The general education courses that complement this curriculum are Basic English and Spanish, and Human Relations.

**OBJECTIVES OF THE PROGRAM**

1. To offer the student the opportunity to study the career of Medical Secretary with
2. Billing to Medical Plans.
3. Prepare students capable of managing medical offices.
4. Offer students new study alternatives in the Secretarial Medical field.
5. Develop students with the necessary knowledge in billing and collection for medical plans.
6. Give the student the opportunity to operate the computer equipment and obtain knowledge of Windows, Microsoft Word, Excel, and Power Point programs.
7. Give the student the tools to display attitudes and personal qualities that help them succeed in their work such as: responsibility, good judgment, perseverance, loyalty, initiative, cooperation,

courtesy, pride in their work and ability to maintain relationships harmonious interpersonal skills.

## **PRACTICE REQUIREMENTS**

The following original and current documents are required to take the practice component of the program:

1. Negative Certificate of Criminal Records
2. Health Certificate
3. HIPAA Certificate
4. Hepatitis B Vaccination\*
5. Varicella Vaccines\*
6. Influenza Vaccines\*
7. Negative Certification of Act 300-Credentialing and Criminal History Check Act for Providers to Children, Persons with Disabilities and Health Care Professionals\* 8.
8. COVID-19 Vaccinations

**\*Important Note:** Some practice centers may require documents additional. The student does not need to revalidate to practice the profession.

**General information:** The Institution reserves the right to modify this study program at any time in agreement with the corresponding department.

## CURRICULAR STRUCTURE

**Prescribed: 56 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
SPAN	1100	Basic Spanish	60	4
ENGL	1110	Basic English	45	3
MATH	1110	Commercial Mathematics	45	3
MEDT	1100	Medical Terminology	120	8
MEDS	1100	Basic Computerized Typing	90	3
MEDS	1110	Credit and Collection in Medical Plans I	60	4
MEDS	1120	Document Management	60	4
MEDS	1130	Intermediate and Advanced Typing	90	3
HUMR	1100	Human Relations	30	2
MEDS	1140	Basic Principles of Classification and Coding ICD-9- CM and ICD-10 CM / PCS and CPT	60	4
COMP	1100	Introduction to Computers	60	2
SPAN	1111	Business Spanish	30	2
ENGL	1220	Business English	30	2
MEDS	1150	Office Administration	30	2
MEDS	1160	Principles of Medical Record	30	2
MEDS	1170	Credit and Medical Insurance Billing II	90	3
MEDS	1250	Internship in Medical Secretary with Medical Insurance Billing	225	5

**Total: 1,155 hours 56 credit**

## **MEDICAL SECRETY WITH MEDICAL INSURANCE BILLING**

### **SUGGESTED PROGRAM OF STUDIES\*\***

COURSE	CODE	COURSE NAME	PRE-REQUIREMENTS	CREDITS
<b>FIRST TERM: 21 CREDITS</b>				
SPAN	1100	Spanish Basic	----	4
ENGL	1110	Basic English	----	3
MATH	1110	Mathematics Business	----	3
MEDT	1100	Medical Terminology	----	8
MEDS	1100	Basic Computer Typing	----	3
<b>SECOND TERM: 19 CREDITS</b>				
MEDS	1110	Credit and Collection in Medical Plans I	MEDT 1100	4
MEDS	1120	Document Management	----	4
MEDS	1130	Intermediate and Advanced Keyboarding	MEDS 1100	3
HUMR	1100	Human Relations	----	2
MEDS	1140	Basic Principles of Classification and Coding ICD-9-CM and ICD-10 CM / PCS and CPT	----	4
COMP	1100	Introduction to Computers	----	2
<b>THIRD TERM: 16 CREDITS</b>				
SPAN	1111	Business Spanish	SPAN 1100	2
ENGL	1220	Business English	ENGL 1110	2
MEDS	1150	Office Administration	----	2
MEDS	1160	Principles of Medical Records	----	2
MEDS	1170	Credit and Medical Insurance Billing II	MEDT1100, MEDS1110, MED S1140	3
MEDS	1250	Internship in Medical Secretary with Medical Insurance Billing	All courses	5

\*\* The student does not necessarily have to follow the order of the suggested courses, but the order helps the

student to complete their degree in the stipulated time. The student should be aware of taking the courses that have requirements in an order that allows them to continue taking the other courses without problems. The courses without requirements do not have a specific order. The students can enroll in them, in the semester they are offered.

#### **MINIMUM GRADING POLICY**

Students enrolled in Medical Secretarial with Medical Billing must obtain a minimum grade of C (70% or higher) to pass all courses in the program.

The following courses must be approved with a grade of C or higher:

SPAN 1100	ENGL 1110	MATH 111	MEDT1100	MEDS 1100	MEDS 1110
MEDS 1120	MEDS 1130	HUMR 1100	MEDS 1140	COMP 1100	SPAN 1111
ENGL 1220	MEDS 1150	MEDS 1160	MEDS 1170		

The following courses must be approved with a grade of B or higher: MEDS

1250

## **VOCATIONAL TECHNICAL CERTIFICATE IN PRESCHOOL TEACHER ASSISTANT**

**Credits: 63**

**Duration: One year**

**Location: Caguas Main**

**Study Modality: Face to Face**

The Preschool Teacher Assistant Program is intended to train students to provide services in the day care of infants and toddlers. The developed curriculum provides the opportunity for the student to learn how to assist the preschool teacher in areas such as childcare, preschool curriculum, and activity design. The Program has a duration of 12 months. The curriculum consists of 63 credits. In addition, the curriculum has a Supervised Practice course (6 credits) that facilitates the application of the knowledge acquired in the theoretical courses to a real experience in a day care center. Upon completion of 63 credits the student receives a Preschool Assistant diploma.

### **GENERAL OBJECTIVES**

1. To develop students the competence required to use their personal, academic, and professional capacities to support the preschool teacher in creating childcare programs.
2. Prepare the student for the Preschool Teacher Assistant Program to offer childcare services.
3. Provide students with the knowledge, attitudes, and skills to develop their personality so that they can integrate into the world of work, maintain satisfactory interpersonal relationships and be a participant member of a professional team.

### **PRACTICE REQUIREMENTS**

The following original and current documents are required to take the practice component of the program:

1. Negative Criminal Record Certificate
2. Health Certificate
3. HIPAA Law Certificate \*
4. Cardiopulmonary Resuscitation (CPR) Certification
5. Negative Certification of Law 300-Law of Verification of Credentials and Criminal History of Suppliers

to Children, People with Disabilities and Health Professionals.

**\*Important Note:** Some practice centers may require additional documents. The student does not need to revalidate to practice the profession.

**General information:** The Institution reserves the right to modify this study program at any time in agreement with the corresponding department.

### CURRICULAR STRUCTURE

**Prescribed: 63 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
HUMR	1110	Human Relations	45	3
SPAN	1100	Basic Spanish	60	4
COMP	1100	Introduction to Computers	60	2
EDUC	1110	Child Development	90	6
EDUC	1120	Discipline Management	45	3
EDUC	1130	Intervention in Crisis	60	4
EDUC	1140	Management and Supervision of Personnel	60	4
EDUC	1150	Basic Concepts of Health and Safety in Infants and Children	75	5
EDUC	1160	Children with Special Needs	75	5
EDUC	1170	Activity Design	75	4
ENGL	1130	English Applied to Preschool Teaching	30	2
MATH	1110	Business Mathematics	45	3
EDUC	1180	Service Program Development and Proposal Development	60	4
EDUC	1190	Infant and Preschool Curriculum	60	4
EDUC	1200	Integration of Art, Music, and Literature Experiences in Early Childhood	60	4
EDUC	1250	Supervised Practice	270	6
<b>Total:</b>			<b>1,170 hours</b>	<b>63 credits</b>

**PRESCHOOL TEACHER ASSISTANT**

**SUGGESTED PROGRAM OF STUDY**

COURSE	CODE	NAME OF COURSES	PRE-REQUIREMENTS	CREDITS
<b>FIRST TERM: 22 CREDITS</b>				
HUMR	1110	Human Relations	-----	3
SPAN	1100	Basic Spanish	-----	4
COMP	1100	Introduction to Computers	-----	2
EDUC	1110	Child Development	-----	6
EDUC	1120	Discipline Management	-----	3
EDUC	1130	Crisis Intervention	-----	4
<b>SECOND TERM: 23 CREDITS</b>				
EDUC	1140	Personnel Management and Supervision	-----	4
EDUC	1150	Basic Health and Safety Concepts in Infants and Children	EDUC 1110	5
EDUC	1160	Children with Special Needs	EDUC 1110	5
EDUC	1170	Activity Design	EDUC 1110	4
ENGL	1130	English Applied to Preschool Education	-----	2
MATH	1110	Business Mathematics	-----	3
<b>THIRD TERM: 23 CREDITS</b>				
EDUC	1180	Development of Service Programs and Proposal Development	EDUC 1170	4
EDUC	1190	Infant and Preschool Curriculum	EDUC 1170	4
EDUC	1200	Integration of Art, Music, and Literature Experiences in Early Childhood	-----	4
EDUC	1250	Practice Supervised	All courses	6

\*\* The student does not necessarily have to follow the order of the suggested courses, but the order helps the student to complete their degree in the stipulated time. The student should be aware of taking the courses that have requirements in an order that allows them to continue taking the other courses without problems. The courses without requirements do not have a specific order. The students can enroll in them, in the semester they are offered.

#### **MINIMUM GRADING POLICY**

Students enrolled in Preschool Teacher Assistant must earn a minimum grade of C (70% or higher) to pass all courses in the program.

The following courses must be approved with a grade of C or higher:

HURM 1110	SPAN 1100	COMP 1100	EDUC 1110	EDUC 1120	EDUC 1130
EDUC 1140	EDUC 1150	EDUC 1160	EDUC 1170	ENGL 1130	MATH 1110
EDUC 1180	EDUC 1190	EDUC 1200			

The following courses must be approved with a grade of B or higher:

EDUC 1250

## **VOCATIONAL TECHNICAL CERTIFICATE IN VETERINARY ASSISTANT**

**CIP Code: 01.8301**

**SOC Code: 31-9096**

**Credits: 38 credits**

**Duration: 48 weeks (1 year)**

**Locations: Bayamón, Caguas**

**Modality of Study: On ground**

The Veterinary Assistant diploma program will prepare students with the required competencies in the field of clinical veterinary medicine and in public and environmental health activities, as well as in the management of domestic and farm animals. Likewise, students will develop skills in animal care, disease prevention, health management, and veterinary surgical nursing techniques, among others. Graduates of this program will be able to practice their profession as veterinary assistants under the supervision of licensed veterinarians in animal shelters, animal welfare organizations, and public or private clinics.

### **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.

## PRACTICE REQUIREMENTS

To take the practice component of the program, the following current and original documents are required:

1. Negative Criminal Record Certificate
2. Health Certificate
3. 2x2 photo
4. Resume

\*\*Important Note: Some practice centers may require additional documents. The student does not need to revalidate to practice the profession.

## CURRICULAR STRUCTURE

**Prescribed: 38 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
VETR	1000	Introduction To Veterinary Medicine and Animal Biosafety	60	2
ESPA	1007	Basic Spanish	60	2
INGL	1109	Basic English I	60	2
MATE	1222	Basic Mathematics	60	2
VETR	1010L	General Principles of The Veterinary Operating Room and Laboratory	60	2
VETR	1020L	Anatomy And Physiology of Animals and Laboratory	90	3
VETR	1100	Veterinary Microbiology	60	2
VETR	1110	Veterinary Pathology, Toxicology, And Pharmacology	60	2
VETR	1120L	Principles Of Veterinary Nursing and Laboratory	90	3
VETR	1130L	Management, Care, And Disease of Farm Animals and Laboratory	90	3
VETR	1140L	Clinical Veterinary Procedures Laboratory	90	3
VETR	1200	Principles Of Veterinary Dentistry	30	1
VETR	1210	Animal Nutrition	30	1
VETR	1220L	Introduction To Veterinary Radiology and Sonography and Laboratory	90	3
PSYC	1110	Principles Of Community Social Psychology	30	1
VETR	1300P	Veterinary Clinical Practice	240	6

**Total:**

**1,200 hours**

**38 credits**

**VETERINARY ASSISTANT**  
**CURRICULUM: JUNE 2024**

**CURRICULUM SEQUENCE\*\***

COURSE	CODE	COURSE NAME	PRE-REQUISITES	CREDITS
<b>FIRST TERM: 13 CREDITS</b>				
VETR	1000	Introduction To Veterinary Medicine and Animal Biosafety	----	2
ESPA	1007	Basic Spanish	----	2
INGL	1109	Basic English I	----	2
MATE	1222	Basic Mathematics	----	2
VETR	1010L	General Principles of The Veterinary Operating Room and Laboratory	----	2
VETR	1020L	Anatomy And Physiology of Animals and Laboratory	-----	3
<b>SECOND TERM: 13 CREDITS</b>				
VETR	1100	Veterinary Microbiology	VETR 1000	2
VETR	1110	Veterinary Pathology, Toxicology, And Pharmacology	MATE 1222 VETR 1020L	2
VETR	1120L	Principles Of Veterinary Nursing and Laboratory	VETR 1020L	3
VETR	1130L	Management, Care, And Disease of Farm Animals and Laboratory	VETR 1000 VETR1020L	3
VETR	1140L	Clinical Veterinary Procedures Laboratory	VETR 1000 VETR 1010L VETR1020L	3
<b>TERCER TÉRMINO: 12 CRÉDITOS</b>				
VETR	1200	Principles Of Veterinary Dentistry	VETR 1000 VETR 1010L VETR 1020L	1
VETR	1210	Animal Nutrition	VETR 1000 VETR 1020L	1
VETR	1220L	Introduction To Veterinary Radiology and Sonography and Laboratory	VETR 1000 VETR 1010L VETR 1020L	3
PSYC	1110	Principles Of Community Social Psychology	ESPA 1007	1
VETR	1300P	Veterinary Clinical Practice	VETR 1100 VETR 1120L VETR 1130L VETR 1140L VETR 1200 VETR 1210 VETR 1220L	6

**Grand total of Diploma in Veterinary Assistant: 1,200 hours and 38 credits**

\*\* The student does not necessarily have to follow the suggested course order, but the order helps them complete their degree in the stipulated time. The student must be aware of taking the courses that have prerequisites in an order that allows them to continue taking the other courses without problems. Courses without prerequisites have no specific order. The student can register for them in the term that they are offered.

#### **MINIMUM GRADING POLICY**

Students enrolled in Veterinary Assistant must obtain at least a 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	PSCY 1110			

The following course must be passed with a grade of B or higher:

VETR 1300P

## **VOCATIONAL TECHNICAL CERTIFICATE IN VETERINARY ASSISTANT WITH PET GROOMING**

**CIP Code: 01.8301**

**SOC Code: 29-2056, 31-9096**

**Credits: 52 credits**

**Duration: 64 weeks (1 year and 4 months)**

**Modality of Study: On ground**

The Veterinary Assistant with Pet Grooming diploma program will prepare students with the required competencies in the field of clinical veterinary medicine and in public and environmental health activities, as well as in animal hygiene, grooming, and conditioning (pet grooming). Furthermore, students will develop basic skills in veterinary surgical nursing, radiology, sonography, and dental and laboratory procedures. Graduates of this program will be able to practice their profession as veterinary assistants under the supervision of licensed veterinarians in animal shelters, animal welfare organizations, canine or feline grooming centers, or through self-employment, among others.

### **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.

### **PRACTICE REQUIREMENTS**

To take the practice component of the program, the following current and original documents are required:

1. Negative Criminal Record Certificate
2. Health Certificate
3. 2x2 photo
4. Resume

**\*\*Important Note:** Some practice centers may require additional documents. The student does not need to revalidate to practice the profession.

## CURRICULAR STRUCTURE

**Prescribed: 52 credits**

<b>COURSE</b>	<b>CODE</b>	<b>COURSE NAME</b>	<b>CONTACT HOURS</b>	<b>CREDITS</b>
VETR	1000	Introduction To Veterinary Medicine and Animal Biosafety	60	2
ESPA	1007	Basic Spanish	60	2
MATE	1222	Basic Mathematics	60	2
VETR	1010L	General Principles of The Veterinary Operating Room and Laboratory	60	2
VETR	1020L	Anatomy And Physiology of Animals and Laboratory	90	3
GROM	1000	Introduction to Pet Grooming	60	2
VETR	1100	Veterinary Microbiology	60	2
VETR	1110	Veterinary Pathology, Toxicology, And Pharmacology	60	2
VETR	1120L	Principles Of Veterinary Nursing and Laboratory	90	3
VETR	1200	Principles Of Veterinary Dentistry	30	1
VETR	1130L	Management, Care, And Disease of Farm Animals and Laboratory	90	3
VETR	1140L	Clinical Veterinary Procedures Laboratory	90	3
VETR	1210	Animal Nutrition	30	1
VETR	1220L	Introduction To Veterinary Radiology and Sonography and Laboratory	90	3
GROM	1030L	Pre-Grooming Techniques and Laboratory	90	3
VETR	1301P	Veterinary Clinical Practice	135	3
GROM	1100L	Basic Grooming and Laboratory	90	3
GROM	1120L	Grooming Cuts and Styles I and Laboratory	90	3
GROM	1200L	Advanced Grooming Techniques	90	3
GROM	1301P	Grooming Practice	135	3
INGL	1109	Basic English I	60	2
PSYC	1110	Principles Of Community Social Psychology	30	1

**Total:**

**1,650 hours**

**52 credits**

## VETERINARY ASSISTANT WITH PET GROOMING

CURRICULUM: JUNE 2024

### CURRICULUM SEQUENCE\*\*

COURSE	CODE	COURSE NAME	PRE-REQUISITES	CREDITS
<b>FIRST TERM: 13 CREDITS</b>				
VETR	1000	Introduction To Veterinary Medicine and Animal Biosafety	----	2
ESPA	1007	Basic Spanish	----	2
MATE	1222	Basic Mathematics	----	2
VETR	1010L	General Principles of The Veterinary Operating Room and Laboratory	----	2
VETR	1020L	Anatomy And Physiology of Animals and Laboratory	-----	3
GROM	1000	Introduction to Pet Grooming	----	2
<b>SECOND TERM: 14 CREDITS</b>				
VETR	1100	Veterinary Microbiology	VETR 1000	2
VETR	1110	Veterinary Pathology, Toxicology, And Pharmacology	MATE 1222 VETR 1020L	2
VETR	1120L	Principles Of Veterinary Nursing and Laboratory	VETR 1020L	3
VETR	1200	Principles Of Veterinary Dentistry	VETR 1000 VETR 1010L VETR 1020L	1
VETR	1130L	Management, Care, And Disease of Farm Animals and Laboratory	VETR 1000 VETR1020L	3
VETR	1140L	Clinical Veterinary Procedures Laboratory	VETR 1000 VETR 1010L VETR1020L	3
<b>THIRD TERM: 13 CREDITS</b>				
VETR	1210	Animal Nutrition	VETR 1000 VETR 1020L	1
VETR	1220L	Introduction To Veterinary Radiology and Sonography and Laboratory	VETR 1000 VETR 1010L VETR 1020L	3
GROM	1030L	Pre-Grooming Techniques and Laboratory	----	3
VETR	1301P	Veterinary Clinical Practice	VETR 1000 VETR 1010L VETR 1020L VETR 1100 VETR 1120L VETR 1130L VETR 1140L VETR 1200 VETR 1210 VETR 1220L	3
GROM	1100L	Basic Grooming Techniques	----	3

<b>FOURTH TERM: 12 CREDITS</b>					
GROM	1120L	Grooming Cuts and Styles I and Laboratory		GROM 1000 GROM 1030L GROM 1100L	3
GROM	1200L	Advances Grooming Techniques		GROM 1000 GROM 1030L GROM 1100L	3
GROM	1301P	Grooming Practice		GROM 1000 GROM 1030L GROM 1120L GROM 1200L	3
INGL	1109	Basic English I		----	2
PSYC	1110	Principles Of Community Social Psychology		ESPA 1007	1

**Grand total of Diploma in Veterinary Assistant with Pet Grooming: 1,650 hours and 52 credits**

\*\* The student does not necessarily have to follow the suggested course order, but the order helps them complete their degree in the stipulated time. The student must be aware of taking the courses that have prerequisites in an order that allows them to continue taking the other courses without problems. Courses without prerequisites have no specific order. The student can register for them in the term that they are offered.

#### **MINIMUM GRADING POLICY**

Students enrolled in Veterinary Assistant with Pet Grooming must obtain at least a 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	PSCY 1110	GROM 1000	GROM 1030L	GROM1100L
GROM 1120L	GROM 1200L				

The following course must be passed with a grade of B or higher:

GROM 1301P    VETR 1301P

**VOCATIONAL TECHNICAL CERTIFICATE IN LABORATORY ASSISTANT WITH ELECTRONIC  
PROCESSING**

**CIP Code: 51.0802**

**SOC Code: 29-2012**

**Credits: 37 credits**

**Duration: 48 weeks (1 year)**

**Location: Bayamón, Caguas**

**Modality of Study: On ground**

The Laboratory Assistant Program with Electronic Processing prepares students with concepts in basic sciences, customer service, and laboratory procedures. Additionally, students will develop skills to assist in areas such as equipment cleaning and disinfection, preparation of culture media, labeling of samples, and customer service. Graduates of this program will be able to work responsibly and ethically as laboratory assistants under the direction and supervision of a medical technologist or director and in compliance with legal requirements.

**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.

**PRACTICE REQUIREMENTS**

To take the practice component of the program, the following current and original documents are required:

1. Negative Criminal Record Certificate

2. Health Certificate
3. Hepatitis B Vaccines (3 doses) \*
4. Vaccines against Chickenpox (2 doses)
5. Doping Test\*
6. Nose and Throat Culture\*
7. HIPAA Law Certificate
8. Negative certification of Law 300-Law on Verification of Credentials and Criminal History of Providers to Children, People with Disabilities and Health Professionals\*

**\*\*Important Note:** Some practice centers may require additional documents. The student does not need to revalidate to practice the profession.

General information: The Institution reserves the right to modify this study program at any time in agreement with the corresponding department.

#### CURRICULAR STRUCTURE

**Prescribed: 37 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
ESPA	1007	Basic Spanish	60	2
LITE	1001	Computer Literacy and Laboratory	60	2
LABS	1000L	Introduction to the Laboratory Assistant Profession and Laboratory	90	3
INGL	1109	Basic English I	60	2
BIOL	1000	Fundamentals of Human Anatomy and Physiology	60	2
LABS	1010L	General Science Compendium and Laboratory	60	2
SEMI	1005	Academic Adaptation and Professional Life Seminar	30	1
MICR	1000L	Handling of Samples, Basic Microbiology and Parasitology Concepts and Laboratory	90	3
MEDT	1000	Medical Terminology in the Laboratory	60	2
LABS	1030L	Handling of Samples in Hematology, Chemistry, Urinalysis, Coagulation, Serology, Immunology, and Molecular Biology, and Laboratory	120	4
LABS	1040L	Handling of Samples and Blood Components in Blood Banks, and Laboratory	60	2
LABS	1020L	General Data Entry and Billing Processes for Laboratory Services	90	3
LABS	1050L	Handling of Pathological Samples and Laboratory	90	3
LABS	1060	Integrative Seminar: Laboratory Assistant	60	2
LABS	1070P	Laboratory Assistant Clinical Practice	180	4

**Total:**

**1,170 hours      37 credits**

**VOCATIONAL TECHNICAL CERTIFICATE IN LABORATORY ASSISTANT WITH ELECTRONIC  
PROCESSING**  
**CURRICULUM: AUGUST 2024**

**CURRICULUM SEQUENCE\*\***

COURSE	CODE	COURSE NAME	PRE-REQUISITES	CREDITS
<b>FIRST TERM: 13 CREDITS</b>				
ESPA	1007	Basic Spanish	----	2
LITE	1001	Computer Literacy and Laboratory	----	2
LABS	1000L	Introduction to the Laboratory Assistant Profession and Laboratory	----	3
INGL	1109	Basic English I	----	2
BIOL	1000	Fundamentals of Human Anatomy and Physiology	----	2
LABS	1010L	General Science Compendium and Laboratory	----	2
<b>SECOND TERM: 12 CREDITS</b>				
SEMI	1005	Academic Adaptation and Professional Life Seminar		1
MICR	1000L	Handling of Samples, Basic Microbiology and Parasitology Concepts and Laboratory	LABS 1000L	3
MEDT	1000	Medical Terminology in the Laboratory	BIOL 1000	2
LABS	1030L	Handling of Samples in Hematology, Chemistry, Urinalysis, Coagulation, Serology, Immunology, and Molecular Biology, and Laboratory	LABS 1000L	4
LABS	1040L	Handling of Samples and Blood Components in Blood Banks, and Laboratory	LABS 1000L	2
<b>THIRD TERM: 12 CREDITS</b>				
LABS	1020L	General Data Entry and Billing Processes for Laboratory Services	MEDT 1000	3
LABS	1050L	Handling of Pathological Samples and Laboratory	BIOL 1000	3
LABS	1060	Integrative Seminar: Laboratory Assistant	LABS 1000 LABS 1010L LABS 1020L LABS 1030L LABS 1040L LABS 1050L	2
LABS	1070P	Laboratory Assistant Clinical Practice	LABS 1000 LABS 1010L LABS 1020L LABS 1030L LABS 1040L LABS 1050L	4

**Grand total of Certificate in Laboratory Assistant with Electronic Processing: 1,170 hours y 37 credits**

\*\* The student does not necessarily have to follow the suggested course order, but the order helps them complete their degree in the stipulated time. The student must be aware of taking the courses that have prerequisites in an order that allows them to continue taking the other courses without problems. Courses without prerequisites have no specific order. The student can register for them in the term that they are offered.

#### **MINIMUM GRADING POLICY**

Students enrolled in Laboratory Assistant with Electronic Processing must obtain at least a grade of C (70%) or higher to pass all courses in the program, except the practice courses that must be passed with B (80%) or higher.

The following courses must be passed with a grade of C or higher:

MICR 1000L	MEDT 1000	LABS 1000L	LABS 1010L	LABS 1020L	LABS 1030L
LABS 1040L	LABS 1050L	LABS 1060			

The following courses must be passed with a grade of B or higher:

LABS 1070P

## **VOCATIONAL TECHNICAL CERTIFICATE PROFESSIONAL PET GROOMER**

**CIP Code: 01.0504**

**SOC Code: 39-2021**

**Credits: 37 credits**

**Duration: 48 weeks (1 year)**

**Location: Bayamón, Caguas**

**Modality of Study: On ground**

The Professional Pet Groomer diploma program will prepare students with the required professional competencies in the field of animal hygiene, grooming, and conditioning (pet grooming). Furthermore, students will apply effective skills for animal care, such as creative grooming techniques and the identification of the most common skin conditions in pets. They will develop basic knowledge and methods for business administration and self-employment in animal grooming services. Graduates of this program will be able to work in veterinary centers, canine or feline grooming centers, and their own businesses, among others.

### **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.

## **PRACTICE REQUIREMENTS**

To take the practice component of the program, the following current and original documents are required:

1. Negative Criminal Record Certificate
2. Health Certificate
3. 2x2 photo
4. Resume

**\*\*Important Note:** Some practice centers may require additional documents. The student does not need to revalidate to practice the profession.

## **ADDITIONAL PROGRAM INFORMATION**

### **AUXILIARY COMPANIES**

#### **Extended Laboratories of the Pet Grooming Professional Clinics**

The Pet Grooming Professional program has integrated in its educational model the inclusion of extended laboratories where students can demonstrate the mastery of modern techniques and professional competencies acquired through the academic program, in a real scenario such as the grooming center. The program leaders and faculty manage this auxiliary enterprise.

The clinic integrates specific courses in which the student must perform hours, tasks and direct services to the public (community) under the supervision and evaluation of the faculty in order to obtain course grades and fulfill the graduation requirements of the academic program.

The educational purpose of the extended labs or auxiliary enterprises is to provide the student with the opportunity to put into practice knowledge, specialized techniques, develop interpersonal skills, and gain experience in the operation and management of a grooming industry establishment. This immersion experience serves a purpose in the process of transitioning students from the studio to the work setting.

The units with Professional Pet Grooming Clinics will be the following: Bayamon and Caguas.

The courses aligned in the academic program in which students are required to have academic integration in the expanded laboratories are:

1. Introduction to Pet Grooming
2. Health, Wellness, and Emergency Management
3. Pre-Grooming Techniques and Laboratory
4. Basic Grooming and Laboratory

5. Grooming Cuts and Styles I and Laboratory
6. Creative Grooming and Asian Fusions and Laboratory
7. Advanced Grooming Techniques and Laboratory
8. Grooming Cuts and Styles II and Laboratory
9. Grooming Seminar and Laboratory
10. Grooming Practice

The courses on which students must be integrated into the extended laboratories are identified in special notes published with the curricular outlines in the catalog. In addition, the contents, assignments, and evaluations of the direct services that students will provide under faculty supervision are published in the course descriptions and study guides.

## CURRICULAR STRUCTURE

**Prescribed: 37 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
GROM	1000	Introduction to Pet Grooming	60	2
GROM	1010	Anatomy and Animal Husbandry	60	2
		Health, Wellness, and Emergency Management	60	2
GROM	1020	Pre-Grooming Techniques and Laboratory	90	3
GROM	1030L	Principles of Behavior and Laboratory	90	3
GROM	1040L	Basic Grooming and Laboratory	90	3
GROM	1100L	Basic Business and Marketing	60	2
CONT	1095	Elementary Accounting I	60	2
GROM	1120L	Grooming Cuts and Styles I and Laboratory	90	3
		Creative Grooming and Asian Fusions and Laboratory	90	3
GROM	1130L	Advanced Grooming Techniques and Laboratory	90	3
		Grooming Cuts and Styles II and Laboratory	90	3
GROM	1210L	Grooming Seminar and Laboratory	60	2
GROM	1220L	Grooming Practice	180	4

**Total:**

**1,170 hours      37 credits**

**PROFESSIONAL PET GROOMER**  
**CURRICULUM: JUNE 2024**

**CURRICULUM SEQUENCE\*\***

COURSE	CODE	COURSE NAME	PRE-REQUISITES	CREDITS
<b>FIRST TERM: 12 CREDITS</b>				
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
<b>SECOND TERM: 13 CREDITS</b>				
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	GROM 1000 GROM 1030L GROM 1100L	3
GROM	1130L	Creative Grooming and Asian Fusions and Laboratory	GROM 1000 GROM 1030L GROM 1100L	3
<b>THIRD TERM: 12 CREDITS</b>				
GROM	1200L	Advanced Grooming Techniques and Laboratory	GROM 1000 GROM 1030L GROM 1100L	3
GROM	1210L	Grooming Cuts and Styles II and Laboratory	GROM 1120L	3
GROM	1220L	Grooming Seminar and Laboratory	GROM 1120L	2
GROM	1300P	Grooming Practice	GROM 1120L GROM 1130L GROM 1200L	4

**Grand total of Diploma in Professional Pet Groomer: 1,170 hours and 37 credits**

\*\* The student does not necessarily have to follow the suggested course order, but the order helps them complete their degree in the stipulated time. The student must be aware of taking the courses that have prerequisites in an order that allows them to continue taking the other courses without problems. Courses without prerequisites have no specific order. The student can register for them in the term that they are offered.

## **MINIMUM GRADING POLICY**

Students enrolled in Professional Pet Groomer must obtain at least a 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	GROM 1010	GROM 1020	GROM 1030L	GROM 1040L	GROM1100L
GROM 1100L	GROM 1110	CONT 1095	GROM 1120L	GROM 1130L	GROM 1200L
GROM 1210L	GROM 1220L				

The following course must be passed with a grade of B or higher:

GROM 1300P

## **SCHOOL OF APPLIED ARTS**

## **SCHOOL OF APPLIED ARTS**

### **DESCRIPTION OF THE SCHOOL**

The School of Applied Arts has the purpose of preparing professionals specialized in the disciplines of Audio and Graphic Design. It is directed by an Academic Coordinator whose main responsibility is to ensure the fulfillment of institutional goals and objectives. Primarily, those related to the teaching and learning process of its students. As part of its academic proposal, the school offers associate degrees in Audio and Graphic Design.

The school's graduates will be able to use critical thinking to develop innovative and commercial projects aligned to the demands of the industry. This is a leader with the ability to advise, create, design, and manage proposals in the discipline he/she performs. The school seeks, through creative projects, to effectively integrate the student to the demands and requirements of the labor and business market. To graduate from their respective academic program, students must complete the requirements of the discipline.

### **MISSION**

The School of Applied Arts is an academic division that integrates the disciplines of Audio and Graphic Design. Its mission is to provide students with a quality service and an educational experience of excellence and vanguard that provides them with competencies and encourages their creativity, leadership, and entrepreneurial vision. This is within a framework of innovation, legal, social, and moral responsibility.

The school develops individuals with values and human resources trained in their areas of specialty. So that they respond to the requirements and demands of the labor and industrial market.

### **VISION**

The School of Applied Arts will be recognized and stand out as an academic division that will effectively prepare its student body in the disciplines of Audio and Graphic Design.

### **PHILOSOPHY**

The school is committed to quality student service and to a dynamic and innovative teaching and learning process that is developed through creative projects directly linked to the job market, according to the area of specialty. It values its faculty and students as its most important assets. Promotes among its members a high sense of corporate social responsibility.

### **GOALS**

To be the School of Applied Arts that best serves the needs of human resources whose study interests are aligned with the academic programs it offers.

1. To offer an effective education tailored to the trends and needs of its student community.
2. To be a school that appreciates the value of creativity, leadership, and entrepreneurial vision.
3. To ensure that the resources, content, and educational services of its academic programs are aligned with the changes and demands of the labor market.
4. To ensure that students have a successful academic experience, supported by a unique quality service.
5. To be an academic division highly recognized for the quality of the programs it offers.
6. To achieve the optimal development of physical and technological facilities that respond to the

needs of the academic community and the reality of the labor field.

- 7. To be the School of Applied Arts of choice in the region that it serves.
- 8. To effectively manage and distribute the resources of the school to achieve the educational goals established by the institution.
- 9. To recruit, develop and retain as many qualified, efficient, and committed students and faculty as possible in their area of specialty.
- 10. Promote a culture of assessment.
- 11. To provide faculty with an effective professional development plan that contributes to the updating of their knowledge.

**ASSOCIATE DEGREE IN AUDIO****CIP Code: 10.0203****SOC Code: 27-4011, 27-4014****Credits: 64 credits****Duration: 80 weeks (1 year and 8 months)****Location: Caguas****Modality of Study: On ground and Online**

The Associate Degree in Audio will prepare students with the necessary competencies for recording, synchronizing, producing, mixing, and restoring sound. In addition, students will develop skills in crafting and creating audio proposals for multimedia, and in managing the legal and business aspects of the profession. Furthermore, they will apply their knowledge in the use of new technologies for managing recorded and live audio, as well as in musical appreciation and expression. Graduates of this program will be able to work as audio technicians in various settings.

**PROGRAM COMPETENCIES**

1. Apply conceptual and technical knowledge to the production or modification of audio products, audiovisual works, or innovative media content.
2. Utilize critical thinking and analysis in the application of various aesthetic and structural patterns for creating, developing, and modifying audio products, audiovisual works, or media products according to the needs of clients.
3. Employ effective communication and interpersonal skills in their interaction with colleagues and clients through the correct use of oral and written language.
4. Integrate technical and computer skills effectively in the management of analog and digital audio, as part of the planning, production, and distribution of audio and media materials, as well as in research specific to their professional field.
5. Demonstrate teamwork and leadership skills, as well as social and moral commitment, responsibility, and respect for diversity, in the practice of their profession.

**Additional program requirement:**

1. Orientation with the Academic Coordinator

**Graduation Requirements:**

1. Have achieved a minimum GPA of 2.50 in concentration courses.
2. Have achieved a minimum GPA of 2.00 or more.

**CURRICULAR STRUCTURE  
GENERAL EDUCATION COURSES**

**Prescribed: 19 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
ENGL	1010	Basic English I	45	3
ENGL	1020	Basic English II	45	3
ITTE	1031L	Computer Literacy and Laboratory	60	3
SEMI	1010	Transition to University Life and Professional Training Seminar	15	1
SOSC	1010	Social Sciences I	45	3
SPAN	1010	Basic Spanish I	45	3
SPAN	1020	Basic Spanish II	45	3

**Sub-Total:** 300 hours 19 credits

**CONCENTRATION COURSES**

**Prescribed: 45 credits**

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
AUDI	1000L	Introduction to Audio Software and Laboratory	60	3
AUDI	1010L	Sound Appreciation and Laboratory	60	3
AUDI	1020	Music Industry	45	3
AUDI	1030L	Audio Recording and Laboratory	60	3
AUDI	1040L	Audio Recording and Synchronization in Midi and Laboratory	60	3
AUDI	1050L	Audio Production and Laboratory	60	3
AUDI	1060L	Live Audio and Laboratory	60	3
AUDI	2000L	Audio For Podcasting, Radio, and Television and Laboratory	60	3
AUDI	2010L	Production With Digital Audio Workstations (DAW) and Laboratory	60	3
AUDI	2020L	Mixing With Digital Audio Workstations (DAW) and Laboratory	60	3
AUDI	2030L	Audio Mastering and Restoration and Laboratory	60	3
AUDI	2040L	Applied Electronics in Audio and Laboratory	60	3

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
AUDI	2050L	Musical Appreciation and Laboratory	60	3
AUDI	2060L	Audio Synchronization for Film and Laboratory	60	3
AUDI	3000P	Audio Practice and Laboratory	120	3

**Sub-total:**

**945 hours 45 credits**

The curricular structure of the associate degree in Audio includes the following components:

COMPONENT	HOURS	CREDITS
General Education Courses	300	19
Concentration Courses	945	45
<b>Total</b>	<b>1,245</b>	<b>64</b>

## ASSOCIATE DEGREE IN AUDIO

### CURRICULUM SEQUENCE

COURSE	CODE	COURSE NAME	PRE-REQUISITES	CREDITS
<b>FIRST TERM: 12 CREDITS</b>				
AUDI	1010L	Sound Appreciation and Laboratory	----	3
AUDI	1020	Music Industry	----	3
AUDI	1030L	Audio Recording and Laboratory	----	3
AUDI	1000L	Introduction to Audio Software and Laboratory	----	3
<b>SECOND TERM: 13 CREDITS</b>				
AUDI	1040L	Audio Recording and Synchronization in Midi and Laboratory	AUDI 1030L	3
AUDI	1050L	Audio Production and Laboratory	AUDI 1030L	3
ITTE	1031L	Computer Literacy and Laboratory	----	3
AUDI	1060L	Live Audio and Laboratory	AUDI 1030L	3
SEMI	1010	Transition to University Life and Professional Training Seminar	----	1
<b>THIRD TERM: 12 CREDITS</b>				
AUDI	2000L	Audio For Podcasting, Radio, and Television and Laboratory	AUDI 1030L	3
AUDI	2010L	Production With Digital Audio Workstations (DAW) and Laboratory	AUDI 1030L AUDI 1050L	3
AUDI	2020L	Mixing With Digital Audio Workstations (DAW) and Laboratory	AUDI 1030L AUDI 1050L	3
AUDI	2030L	Audio Mastering and Restoration and Laboratory	AUDI 1030L AUDI 1050L	3
<b>FOURTH TERM: 12 CREDITS</b>				
AUDI	2040L	Applied Electronics in Audio and Laboratory	AUDI 1030L AUDI 1050L	3
AUDI	2050L	Musical Appreciation and Laboratory	----	3
ENGL	1010	Basic English I	----	3
SPAN	1010	Basic Spanish I	----	3

<b>FIFTH TERM: 15 CREDITS</b>				
AUDI	2060L	Audio Synchronization for Film and Laboratory	AUDI 1030L AUDI 1050L	3
AUDI	3000P	Audio Practice and Laboratory	AUDI 1000L, AUDI 1010L, AUDI 1020L, AUDI 1030L, AUDI 1040L, AUDI 1050L, AUDI 1060L, AUDI 2000L, AUDI 2010L, AUDI 2020L, AUDI 2030L, AUDI 2040L	3
SOSC	1010	Social Sciences I	----	3
ENGL	1020	Basic English II	ENGL 1010	3
SPAN	1020	Basic Spanish II	SPAN 1020	3

**Grand Total of the associate degree in Audio: 64 credits and 1,245 hours**

\*\* The student does not necessarily have to follow the suggested course order, but the order helps them complete their degree in the stipulated time. The student must be aware of taking the courses that have prerequisites in an order that allows them to continue taking the other courses without problems. Courses without prerequisites have no specific order. The student can register for them in the term that they are offered.

**MINIMUM GRADING POLICY**

Students enrolled in the associate degree in Audio must obtain at least a grade of C when passing the following courses:

AUDI 1000L	AUDI 1010L	AUDI 1020	AUDI 1030L	AUDI 1040L
AUDI 1050L	AUDI 1060L	AUDI 2000L	AUDI 2010L	AUDI 2020L
AUDI 2030L	AUDI 2040L	AUDI 2050L	AUDI 2060L	

Students enrolled in the associate degree in Audio must obtain at least a grade of B when passing the following course: AUDI 3000

## **COURSES DESCRIPTIONS**

## **COURSE DESCRIPTIONS**

The course descriptions contained in this catalog and/or any other institutional publication refer exclusively to a general schematic establishment of the content of each course. The description, therefore, does not constitute a total and complete definition of the programmatic content of each course.

### **GENERAL EDUCATION COURSES**

#### **ART 2009 ART HISTORY**

This course is an introduction to the study of the arts and its various branches: architecture, sculpture, painting, music, literature, theater, and film. The origin and relevant historical development of the arts in the East and the West are emphasized. The influence of foreign artistic movements in Puerto Rico is also studied. The methodology of the course includes lectures, a section of comprehension readings, practical applications, discussion of works, work in pairs, critical reactions to exhibitions, reports, and presentations.

3 credits

Prerequisite: None

Corequisite: None

#### **ENGL 1010 - Basic English I**

In this course, the students will demonstrate proper use of the English language with a primary focus on syntax, grammar, punctuation, and spelling. Students will distinguish verb tenses in sentences and paragraphs. They will also produce clear, well-developed and well-organized sentences, messages, paragraphs, and short compositions using correct capitalization, punctuation and syntax. Students will also argue about various contexts, including reading and media materials on the Internet, short stories, and library resources.

3 credits

Prerequisite: None

Corequisite: None

#### **ENGL 1020 - Basic English II**

In this course students will enhance their listening, reading, writing, and speaking skills in English as a second language. Students will demonstrate an understanding of grammar elements, literature, and the development of writing, reading, listening, and speaking skills. Also, they will apply critical thinking skills in reading and writing.

3 credits

Prerequisite: ENGL 1010 Corequisite: None

#### **ENGL 1101 BASIC ENGLISH I 3 CREDITS 60 HOURS**

The purpose of this course is to improve the language skills of listening and speaking of the learner. Listening focuses on superficial understanding and specific details, while speaking emphasizes the skills necessary for daily communication. In addition, students will increase their vocabulary and study basic grammatical structures. It includes listening activities, oral presentations, class discussions, lectures, and short readings.

#### **ENGL 1102 BASIC ENGLISH II 3 CREDITS 45 HOURS**

*Pre-requirement: ENGL 1101*

This course is designed to develop students' skills in reading, writing, and critical thinking. Students will expand their vocabulary, increase their ability to analyze text, gain knowledge of basic grammatical structures, and improve their writing skills. Students will also continue to develop their listening and

speaking skills. It includes selected short readings, class discussions, lectures, and writing paragraphs.

**ENGL 1110 BASIC ENGLISH 3 CREDITS 60 HOURS**

This one-term Basic English course is designed to facilitate the learning of the English language and to strengthen basic language skills and vocabulary of non-native speakers. The mastery of the language skills presented in this course will improve the student's listening, speaking, reading, and writing skills. This will prepare them to meet the challenges they will face in the business world. This course has 11.25 additional outside class clock hours. The student will do a paper about a topic related to the course.

**ENGL 1130 ENGLISH APPLIED TO PRE-SCHOOL 2 CREDITS 30 HOURS TEACHING**

This course is designed for pre-school teacher assistant students in a pre-school listening, speaking, reading, and writing course. It focuses on the listening, speaking, reading, and writing skills needed for teaching Basic English to pre-school children. This course has 7.50 additional hours of outside work. The student will perform the assigned activities in the component external work.

**ENGL 1220 BUSINESS ENGLISH 2 CREDITS 30 HOURS**

*Pre-requisite: ENGL 1110*

This course is designed to provide the student with the writing principles, reference tools and appropriate exercises that will enable them to write business communications letters in a simple and familiar language. This course has 7.5 additional outside class clock hours. The student will do a paper about a topic related to the course.

**ENGL 2050 - Conversational English**

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.

3 credits

Prerequisite: ENGL 1020

Corequisite: None

**ENGL 2206 BUSINESS WRITING IN ENGLISH 3 CREDITS 45 HOURS**

*Pre-requirement: ENGL 1102*

This course develops in students the ability to correctly write documents used in commercial areas. The different styles of documents and commercial forms are studied. The course will be based on written assignments, exams, and short tests.

**ENGL 3001 CONVERSATIONAL ENGLISH 3 CREDITS 45 HOURS AND COMPOSITION**

The purpose of the course is to develop oral and written communication skills, as well as the processes and resources to achieve effective communication using vocabulary, grammar, critical thinking, listening, speaking and pronunciation skills. Emphasizes the importance of communication and the impact on the mass media. The teaching and learning process is carried out through different techniques of presentations, oral reports, readings related to the objectives of the course, the use of technology and organizational innovations.

**ENGL 3002 CONVERSATIONAL ENGLISH 3 CREDITS 45 HOURS FOR MANAGERS**

The Conversational English course for managers focuses on the general principles of business administration curriculum and essential communication skills in English. The course is offered using a theoretical-functional approach, in which there is a functional purpose and intention of communication. Students will be exposed and participate in dialogues, panels, and presentations. The course will be based on participation, presentations, and short tests.

**ESPA 1007 Basic Spanish**

In this course, students will produce oral presentations and written assignments using the grammatical rules of the Spanish language. They will also analyze texts of varying levels of complexity. Likewise, students will write assignments with varied vocabulary, correct syntax, and adequate spelling.

2 credits Prerequisite: None Corequisite: None

**HIST 3004 HISTORY OF PUERTO RICO 3 CREDITS 45 HOURS**

The course intends for the student to analyze the socio-historical process of Puerto Rico from pre- Columbian times to the present. In addition, a historical-graphic recount is made in which the facts and the political-economic relations that have been decisive in the process of cultural development of the country under different sovereignties are identified. The course is offered through lectures, socialized discussion, analysis of newspaper and magazine articles, Socratic dialogues, oral reports, and audiovisual presentations.

**HUMA 1010 - Humanities I**

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. Students 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.

3 credits

Prerequisite: None

Corequisite: None

**HUMA 1020 - Humanities II**

In this course, students will analyze the fundamental principles, impact, and transcendence of various philosophical and epistemological movements of 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.

3 credits

Prerequisite: HUMA 1010

Corequisite: None

**HUMA 3005 WORLD HISTORY I3 CREDITS 45 HOURS**

The main objective of the course is to ensure that the student understands the evolution of the human being from its origins to the historical period of the Middle Ages. In addition, to study and analyze the great struggles for the power of man, their different forms and structures of government, religious

beliefs, manifestations in the arts and sciences, as well as those cultural changes. The course is designed for the students to develop their critical analysis skills through lectures, cooperative work, reflections, investigations, and reading comprehension.

**HUMA 3006 UNIVERSAL HISTORY II 3 CREDITS 45 HOURS**

The course is related to the study of those historical events and factors that gave way to two eras: the Modern Age and the Contemporary. Attention is given to relevant historical movements such as the great intellectual, economic, political, scientific, religious, and sociocultural revolutions. The course ends with the analysis of the events of greatest magnitude and global impact in the XXI century. Lectures, reading comprehension, critical thinking skills, data and graph analysis, Socratic dialogue, monographic work, and audiovisual presentations are used.

**HUBE 5101 ORGANIZATIONAL BEHAVIOR 3 CREDITS 45 HOURS**

Covers the study and application of behaviors in organizations. Topics such as the theories and practices of organizations, the psychology of the individual, their nature and the advantages of teamwork, and changes, among others, are analyzed. Theories about human behavior and those related to organizations can also be applied. Knowledge is measured through oral presentations, essays, case analysis, and research.

**INGL 1109 Basic English I**

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 the English language. In addition, students will reinforce their vocabulary knowledge for a better understanding of English in everyday situations.

2 credits

Prerequisite: None

**ITTE 1031L - Computer Literacy and Laboratory**

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.

3 credits

Prerequisite: None

Corequisite: None

**LITE 1001 Computer Literacy**

In this course, students will analyze the utility of productivity tools, databases, and computerized systems in their learning process. They will distinguish basic concepts of technology, the information processing cycle, its devices, and the function of computer programs. In addition, they will examine basic aspects related to the services, security, privacy, and ethics of the internet, as well as to assistive technology. Furthermore, they will demonstrate technological competencies by using digital tools for creating documents in word, presentation, and electronic spreadsheet processors.

2 credits Prerequisite: None Corequisite: None

**MATE 1222 Basic Mathematics**

In this course, students will apply basic mathematics knowledge in practical exercises and everyday situations. They will solve basic mathematical operations, such as addition, subtraction, multiplication, and

division of numerals, integers, decimals, and fractions. In addition, they will employ concepts of percentages, ratios, proportions, and units of weight and measurement.

2 credits

Prerequisite: None

#### **MATH 1010 - Basic Mathematics**

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 polynomials. In addition, students will use measurement concepts and conversion factors in professional and everyday problem solving.

3 credits

Prerequisite: None

Corequisite: None

#### **MATH 2010 INTRODUCTORY ALGEBRA 3 CREDITS 45 HOURS**

The course describes to the students the basic concepts of algebraic expressions and formulas. It is designed for the student to apply operations, algebraic expressions, and formulas in practice exercises. Topics such as problem solving, graphing equations, algebraic expressions, linear equations and inequalities, polynomials, and factoring of polynomials will be discussed. This course has an additional 90 hours of outside work. The student will carry out the activities assigned in the External Work Component.

#### **PSCY1110 Principles of Community Social Psychology**

In this course, students will examine the impact of psychosocial phenomena on human behavior as social beings and the application of this knowledge in the veterinary practice field. They will determine the emotional and psychological dynamics that influence the professional-pet-caregiver interaction. Additionally, they will analyze contemporary topics in psychology and veterinary sciences.

1 credit

Prerequisite: ESPA 1007

#### **PSYC 2510 Psychology**

In this course, students will analyze the historical development and basic concepts of psychological studies on human behavior. Additionally, they will explain the situations that exert significant influence on psychosocial behavior. Likewise, they will apply concepts and theories of psychology to modern day life situations and in their professional relationships. They will analyze the individual in ways integral to personal relationships, cultural context, and social conflicts.

3 credits

Prerequisite: None

Corequisite: None

#### **SEMI 1005 Academic Adaptation and Professional Life Seminar**

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.

1 credit

Prerequisite: None Corequisite: None

**SEMI 1010 - Transition to University Life and Professional Training Seminar**

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.

1 credit

Prerequisite: None Corequisite: None

**SPAN 1010 - Basic Spanish I**

In this course, students will examine the basic spelling, grammar, and syntax rules when expressing themselves orally or in writing. Students will analyze a variety of literary genres in a critical and reflexive way. They will also apply the linguistic rules that govern oral and written communication.

3 credits

Prerequisite: None Corequisite: None

**SPAN 1020 - Basic Spanish II**

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. Students will also recognize the importance of public speaking and discourse as resources for effective communication. In addition, they will write and present a speech.

3 credits

Prerequisite: SPAN 1010

Corequisite: None

**SPAN 1100 BASIC SPANISH 4 CREDITS 60 HOURS**

The purpose of the course is to develop in the student the skills related to the correct and effective use of the Spanish language as an oral and written communication instrument. Emphasis will be placed on the study of the morphosyntactic and normative aspects of the Spanish language through the study of sentence structure, the morphosyntactic function of words in sentences and the rules of spelling. Likewise, the students will develop their writing skills in paragraphs and original compositions. This course has 15 hours of external work. The student will carry out a study assignment related to a topic of the course.

**SPAN 1101 BASIC SPANISH I 3 CREDITS 60 HOURS**

The SPAN 1101 course aims for the students to expand the basic skills of oral and written communication. Special attention will be given to the study of the structure of simple grammatical sentences. In addition, some aspects of spelling will be studied: punctuation marks, upper- and lower-case letters, accentuation, and good use of the vocabulary. The teaching and learning process will be carried out through conferences, socialized discussion, teamwork, and interactive exercises.

**SPAN 1102 BASIC SPANISH II 3 CREDITS 45 HOURS**

*Pre-requisite: SPAN 1101*

The SPAN 1102 course is intended to reaffirm oral and written communication skills. Different texts and fragments of Puerto Rican, Latin American and Spanish literature will be analyzed and discussed: short story,

novel, poetry, and essay. The teaching and learning process will be carried out through readings, socialized discussion, oral reports of literary analysis and teamwork.

SPAN 1111 BUSINESS SPANISH 2 CREDITS 30 HOURS

*Pre-requisite: SPAN 1100*

The purpose of this course is to improve and develop in the student the ability to write with precision, correctness, and appropriate tone the different types of business and informal letters and memoranda. The procedure to follow will be analysis, organization and writing of each type of commercial communication studied in class. The student will carry out a study assignment related to a topic of the course.

SPAN 1121 EFFECTIVE SPANISH 3 CREDITS 45 HOURS COMMUNICATION SKILLS

This theoretical and practical course provides the student with the basic techniques and skills for effective, professional, and assertive verbal and written communication with veterinary clinical staff and clients. The advantages of mastering communication skills lie, not only in improving interaction with the client, but also in reducing conflicts with other team members, improving job satisfaction, strengthening education skills and customer recommendation, encourage other team members to improve their communication patterns and reduce errors that occur due to poor communication. The student will carry out special work on a topic related to the course.

SPAN 1151 BASIC EFFECTIVE COMMUNICATION 4 CREDITS 60 HOURS SKILLS, AND CUSTOMER SERVICE

This course prepares the student with the basic techniques and skills for effective, professional, and assertive verbal and written communication with laboratory personnel and clients. The advantages of mastering communication skills lie not only in improving interaction with the client, but also in reducing conflicts with other members of the work team by reducing errors that occur due to poor communication. During the course, the basic elements necessary for the study of business opportunities and the processes required for the growth of an existing business are also worked on. The student will carry out the activities assigned in the External Work Component.

SPAN 2040 Writing and Composition

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.

3 credits

Prerequisite: SPAN 1020

Corequisite: None

SPAN 2207 BUSINESS WRITING IN SPANISH 3 CREDITS 45 HOURS

*Pre-requisite: SPAN 1102*

The purpose of this course is to develop and improve the ability to create a student's own writing style. The basic principles of writing are emphasized to develop a professional efficiently prepared in the skills of writing business documents such as: letters, summaries, memos, and applications. Grammatical, orthographic and morphosyntactic concepts are integrated. Student knowledge is determined through lectures, socialized discussion, interactive exercises, and creative writing of business documents.

SPAN 3002 ADVANCED SPANISH 3 CREDITS 45 HOURS

*Pre-requirement: SPAN 1102*

The SPAN 3002 course places the student in front of the humanizing context represented by their language and the literary work. He studies literary human beings: the poet, the essayist, the storyteller who uses language as an instrument of his literary creation. The teaching of language and literature is integrated with grammatical, orthographic and morphosyntactic explanation. The teaching and learning process is developed through lectures, text readings, socialized discussion, and literary analysis reports.

SOCI 2015 PRINCIPLES OF SOCIOLOGY 3 CREDITS 45 HOURS

The purpose of the course is to expose the student to the knowledge and methodologies that define Sociology as scientific knowledge. Through it, the importance of critical analysis in the face of social changes and the implications of these changes in society is highlighted. The course includes conferences, exhibitions or work papers, guided / group discussions, among other strategies such as those related to technological communication media to understand contemporary social reality. This course will be evaluated with exams, homework, among other criteria.

SOSC 1010 - Social Sciences I

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 issues. This course requires 10 hours of participation in community service-learning activities.

3 credits Prerequisite: None Corequisite: None

SOSC 1020 - Social Sciences II

In this course, students will examine the disciplines of 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. Finally, students will evaluate the effects of industrial development, urban growth, and environmental movements in geography, the environment, and sustainability.

3 credits

Prerequisite: SOSC 1010

Corequisite: None

### **MEDULAR AND CORE COURSES**

ANAT 2030 SECTIONAL ANATOMY 3 CREDITS 60 HOURS

*Pre-requirement: BIOL 1601, BIOL 1602*

This course provides the student of diagnostic imaging sciences with the tools to learn and understand the relationship of anatomical structures in three dimensions. Helps the student to review the anatomy of radiological interest in radiographic studies. This course has an additional 120 hours of outside work. The student will carry out the activities assigned in the External Work Component.

ANAT 2040 Anatomy and Physiology of the Heart

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.

2 credits

Prerequisites: BIOL 3030, BIOL 2030L

#### AUDI 1000L Introduction to Audio Software and Laboratory

In this course, students will integrate high-quality audio into multimedia products. They will use digital programs and equipment for sound recording and postproduction. In addition, they will determine how sound is used in communication media to create a dynamic presentation of information. This course requires the use of the laboratory.

3 credits (30 hours of theory and 30 hours of laboratory)

Prerequisite: None

Corequisite: None

#### AUDI 1010L Sound Appreciation and Laboratory

In this course, students will apply theoretical and practical concepts related to musical appreciation from a multicultural perspective. They will examine sound properties and their relation to auditory perception. Furthermore, they will differentiate structural and formal aspects of musical compositions, along with the voices and instruments used in them. This course requires the use of the laboratory.

3 credits (30 hours of theory and 30 hours of laboratory)

Prerequisite: None

Corequisite: None

#### AUDI 1020 Music Industry

In this course, students will analyze the legal, economic, artistic and ethical aspects essential for the professional development of an audio technician. They will use various techniques and methodologies for solving problems associated with their profession. In addition, they will develop the administrative and cultural management skills necessary in the music industry.

3 credits (45 hours of theory)

Prerequisite: None

Corequisite: None

#### AUDI 1030L Audio Recording and Laboratory

In this course, students will apply theoretical and practical concepts in audio recording, acoustic design, and the operation of analog and digital consoles. They will also use modern techniques for sound recording. Furthermore, they will examine various tools and processes used in the industry. This course requires the use of the laboratory.

3 credits (30 hours of theory and 30 hours of laboratory)

Prerequisite: None

Corequisite: None

#### AUDI 1040L Audio Recording and Synchronization in MIDI and Laboratory

In this course, students will develop the skills necessary to work with the Musical Instrument Digital Interface (MIDI) protocol, from capturing the original source to the final composition. They will also use MIDI sequencing and editing tools. Additionally, they will demonstrate knowledge of score editing and virtual instrument management in music production. The course requires the use of the laboratory.

3 credits (30 hours of theory and 30 hours of laboratory)

Prerequisite: AUDI 1030L

Corequisite: None

### **AUDI 1050L Audio Production and Laboratory**

In this course, students will analyze different musical styles and the artistic revolution in the international record market. They will reflect on relevant factors in the recording process, such as psychological and communication aspects in the interaction with musicians. In addition, they will manage technological resources for audio production. This course requires the use of the laboratory.

3 credits (30 hours of theory and 30 hours of laboratory)

Prerequisite: AUDI 1030L

Corequisite: None

### **AUDI 1060L Live Audio and Laboratory**

In this course, students will apply technical, theoretical, and practical knowledge in the sound design of live performances. They will develop skills in the coordination and planning of these events. Furthermore, they will manage all aspects related to the setup and adjustment of sound systems according to the required technical specifications for quality and safety. This course requires the use of the laboratory.

3 credits (30 hours of theory and 30 hours of laboratory)

Prerequisite: AUDI 1030L

Corequisite: None

### **AUDI 2000L Audio for Podcasting, Radio, and Television and Laboratory**

In this course, students will develop skills in the use of audio equipment and tools for designing, writing, and producing messages for dissemination on radio, television, and digital platforms. They will also conceptualize images and sound effects for use in these media. Furthermore, they will apply effective production techniques. This course requires the use of the laboratory.

3 credits (30 hours of theory and 30 hours of laboratory)

Prerequisite: AUDI 1030L

Corequisite: None

### **AUDI 2010L Production with Digital Audio Workstations (DAW) and Laboratory**

In this course, students will apply audio composition, sequencing, recording, editing, and mixing skills using digital audio workstations (DAW) such as Pro Tools (MP, LE, and HD), and Nuendo. They will manage various aspects of their configuration, such as window structure and commands, main tools, and session settings. Additionally, they will use MIDI sequencing and editing tools, as well as score editing and virtual instrument management. This course requires the use of the laboratory.

3 credits (30 hours of theory and 30 hours of laboratory)

Prerequisite: AUDI 1030L, AUDI 1050L

Corequisite: None

### **AUDI 2020L Mixing with Digital Audio Workstations (DAW) and Laboratory**

In this course, students will use mixing techniques, methods, and processes in producing phonographic productions through digital audio workstations (DAW), Pro Tools, and Nuendo. They will also apply theoretical knowledge and computer skills in handling these tools. In addition, they will practice processes related to audio mixing. This course requires the use of the laboratory.

3 credits (30 hours of theory and 30 hours of laboratory)

Prerequisite: AUDI 1030L, AUDI 1050L

Corequisite: None

### **AUDI 2030L Audio Mastering and Restoration and Laboratory**

In this course, students will examine the processes necessary for optimizing sound quality, such as

equalization, compression, limiting, stereo image manipulation, and signal maximization. They will apply the necessary steps for audio mastering or restoration according to the characteristics of each project. Furthermore, they will evaluate sound based on various criteria. This course requires the use of the laboratory.

3 credits (30 hours of theory and 30 hours of laboratory)

Prerequisite: AUDI 1030L, AUDI 1050L

Corequisite: None

#### AUDI 2040L Applied Electronics in Audio and Laboratory

In this course, students will analyze the basic aspects of electronics applied to audio. They will also examine the cable configuration of different connectors and the continuity of cables in the implementation of audio circuits. In addition, they will explain the function of cables in an audio amplification circuit and in power over Ethernet (PoE) equipment, along with their possible modifications. This course requires the use of the laboratory.

3 credits (30 hours of theory and 30 hours of laboratory)

Prerequisite: AUDI 1030L, AUDI 1050L

Corequisite: None

#### AUDI 2050L Musical Appreciation and Laboratory

In this course, students will examine the history of music and the evolution of some of the most noteworthy musical genres over the years. They will also analyze the fundamental elements of music, including the rhythmic bases of various genres. Furthermore, they will assess the impact of music on society. This course requires the use of the laboratory.

3 credits (30 hours of theory and 30 hours of laboratory)

Prerequisite: None

Corequisite: None

#### AUDI 2060L Audio Synchronization for Film and Laboratory

In this course, students will analyze the use of sound in cinematic language. They will examine the creative and technical processes of sound production in film. In addition, they will practice sound capture (microphone placement), recording, editing, post-production, and mixing for film. This course requires the use of the laboratory.

3 credits (30 hours of theory and 30 hours of laboratory)

Prerequisite: AUDI 1030L, AUDI 1050L

Corequisite: None

#### AUDI 3000P Audio Practice and Laboratory

In this course, students will practice the sound management skills acquired throughout the program. They will apply competencies for communication with colleagues and clients, problem-solving, and equipment management in a professional environment. They will demonstrate their knowledge of musical appreciation, sound evaluation, and handling of ethical and legal aspects, as well as the various processes associated with audio preparation and integration in multiple contexts at an external practice center. This course requires the use of the laboratory.

3 credits (30 hours of theory and 90 hours of practice)

Prerequisites: AUDI 1000L, AUDI 1010L, AUDI 1020L, AUDI 1030L, AUDI 1040L, AUDI 1050L, AUDI 1060L, AUDI 2000L, AUDI 2010L, AUDI 2020L, AUDI 2030L, AUDI 2040L

Corequisite: None

### **BIOL 1000 Fundamentals of Human Anatomy and Physiology**

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.

2 credits Prerequisite: None Corequisite: None

### **BIOL 1009 GENERAL BIOLOGY 3 CREDITS 45 HOURS**

The course allows the student to learn and develop basic knowledge about the study of the characteristics of living beings and the functioning of their general organism. This course has an additional 90 hours of outside work. The student will carry out the activities assigned in the External Work Component.

### **BIOL 1010 Introduction to Biology**

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.

3 credits

Prerequisite: None

Corequisite: None

### **BIOL 1601 HUMAN ANATOMY AND PHYSIOLOGY I 3 CREDITS 60 HOURS**

Introduction to the study of cell morphology and physiology. The topics of the human body as a whole and composition at the cellular and tissue level are discussed. The student evaluates the histology, anatomy, and physiology of the integumentary, skeletal, articular, muscular, cardiovascular, lymphatic, and respiratory systems. Oral and written presentations will be made, as well as practical exercises in the laboratory related to the course. Requires use of the science lab.

### **BIOL 1602 HUMAN ANATOMY AND PHYSIOLOGY II 3 CREDITS 60 HOURS**

*Pre-requirement: BIOL 1601*

It is the continuation of the histological, anatomical, and physiological study of the nervous, endocrine, digestive, urinary, hydro electrolytic, acid/base and reproductive systems. Emphasis on the interrelation of all systems, on the coordination and normal functioning of the body. Oral and written presentations will be made, as well as practical exercises in the laboratory related to the course. Requires the use of the science lab.

### **BIOL 1603 MICROBIOLOGY 4 CREDITS 75 HOURS**

Presents the study of microorganisms and their relationship with humans and their environment. The basic principles of asepsis, sanitation, disinfection, sterilization, immunology, and transmission of infectious diseases. Areas of medical microbiology are included, presented systematically in bacteriology, virology, mycology, immunology, serology, diagnostic evaluation, clinical data, and epidemiology on infectious diseases. Oral and written presentations will be made, as well as practical exercises in the laboratory related to the course. Requires use of science lab.

### **BIOL 2010 Anatomy and Physiology I**

In this course, students will discuss the basic concepts of human anatomy and physiology. They will analyze the levels of organization, emphasizing the structure and function of a cell, such as the four basic tissues and

the integumentary, skeletal, muscular, and nervous system of the human body. Additionally, they will examine the most common pathologies in these systems.

3 credits Prerequisite: None

Corequisite: None

#### **BIOL 2020 Anatomy and Physiology II**

In this course, students will analyze the structure and function of the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems. At the same time, they will discuss the function of the organs composing these systems. Additionally, they will examine the most common pathologies in these systems.

#### **BIOL 2030 Sectional Anatomy**

In this course, students will explain the functioning of the human body systems and the organs that comprise them. They will also differentiate the levels of structural organization in the human body and how they interrelate. Additionally, they will interpret the basic concepts related to image acquisition using computed tomography, magnetic resonance imaging, and ultrasound.

3 credits

Prerequisite: None

Corequisite: BIOL 2030L

#### **BIOL 2030L Sectional Anatomy Laboratory**

In this course, students will identify the function of the human body's systems and organs. Additionally, they will analyze images from computerized tomography, magnetic resonance, and ultrasound. Likewise, they will explain the relationship between the structures localized in the brain, thorax, abdomen, and pelvis.

3 credits Prerequisite: None

Corequisite: BIOL 2030

#### **BISC 1010 - Biological Sciences**

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. Furthermore, they will distinguish the essential aspects for the functioning and development of life. Students will explain the reproductive aspects of the cell and its genetic role. They will also examine different ecosystems and the effect caused by human intervention on the environment.

3 credits

Prerequisite: None

Corequisite: None

#### **BUAD 2250 Human Relations**

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.

3 credits

Prerequisite: None Corequisite: None

#### **BUMA 1050 Introduction to Entrepreneurship**

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 process of a business plan. Additionally, they will explain and develop an ethical and social awareness that will enable them to perform well in the business

world.

3 credits

Prerequisite: None

Corequisite: None

**CARD 2060 SPECIAL EQUIPMENT MANAGEMENT 2 CREDITS 45 HOURS**

The purpose of this course is for the student to know the equipment of the cardiovascular laboratory and biomedical equipment for carrying out cardiovascular tests. This is critical to the performance of your role. In this way, you will be able to obtain useful information for the diagnostic conclusion after each study is carried out. In addition, it provides guidance on the equipment available in the different work areas. This course has an additional 90 hours of outside work. The student will carry out the activities assigned in the External Work Component.

**CARD 2150 INTRODUCTION TO CARDIAC 3 CREDITS 45 HOURS AND VASCULAR SONOGRAPHY**

It introduces the student to the profession of cardiac and vascular sonography. It includes the historical development of the profession, emphasizes the role of the Sonographer and the terminology associated with the characteristics of the image. It introduces the basic principles of ultrasound, tracking methods, image documentation, report preparation, equipment cares and quality control, and laws related to the profession. This course has an additional 90 hours of outside work. The student will carry out the activities assigned in the External Work Component.

**CARD 2160 ELECTROCARDIOGRAPHY 3 CREDITS 60 HOURS AND BASIC HOLTER**

*Pre-requirement: CARD 2150, SONO 2200, MEDT 2000*

The purpose of this course is for the student to know the equipment of the cardiovascular laboratory and biomedical equipment for carrying out cardiovascular tests. This is critical to the performance of your role. In this way, you will be able to obtain useful information for the diagnostic conclusion after each study is carried out. In addition, it provides guidance on the equipment available in the different work areas. This course has an additional 120 hours of outside work. The student will carry out the activities assigned in the External Work Component.

**CARD 2170 LOWER EXTREMITIES VASCULAR4 CREDITS 90 HOURS SONOGRAPHY AND CLINICAL APPLICATIONS**

*Pre-requirement: CARD 2150, SONO 2200*

The course provides the student with anatomical, physiological, and pathological knowledge of both the arterial and venous systems of the lower extremities. It will provide teaching on the management of different equipment, study protocols, patient management, and interpretation of encounters in such a way that the student can face the different facets of vascular sonographers within a real work environment. As part of the course, in addition to the hours of theory, the students will have dedicated hours of laboratory where they will be able to acquire the necessary skills to carry out the different protocols. The course has 180 hours of external work where the student will carry out the activities assigned in the External Work Component.

**CARD 2180 BASIC ECOCARDIOGRAPHY 4 CREDITS 90 HOURS**

*Pre-requirement: BIOL 2040, MEDT 2000, CARD 2150, SONO 2200*

The purpose of this course on echocardiography and cardiac Doppler is for the student to learn to use this modality of clinical ultrasound for cardiac evaluation. The student will identify normal anatomy, analyze views, and identify structures for evaluation. This will be offered in a theoretical phase simultaneously to the laboratory. This course has an additional 180 hours of outside work. The student will carry out the

activities assigned in the External Work Component.

CARD 2210 SONOGRAPHIC EVALUATION OF 4 CREDITS 90 HOURS CARDIAC PATHOLOGIES

*Pre-requirement: BIOL 2040, MEDT 2000, CARD 2150, SONO 2200*

This course provides the necessary knowledge for the proper recognition and evaluation of cardiac pathologies using Echocardiography. Laboratories will be carried out to provide techniques and improve skills for quantitative evaluation in a normal and pathological echocardiogram, as well as the evaluation of clinical cases. This course has an additional 180 hours of outside work. The student will carry out the activities assigned in the External Work Component.

CARD 2190 UPPER EXTREMITIES VASCULAR 4 CREDITS 90 HOURS SONOGRAPHY AND CLINICAL APPLICATIONS

*Pre-requirement: CARD 2150, SONO 2200*

The course provides the student with anatomical, physiological, and pathological knowledge of both the arterial and venous systems of the upper extremities. It will provide teaching on the management of different equipment, study protocols, patient management, and interpretation of encounters in such a way that the student can face the different facets of vascular sonographers within a real work environment.

As part of the course, in addition to the hours of theory, the students will have dedicated hours in the laboratory where they will be able to acquire the necessary skills to carry out the different protocols. The course has 180 hours of external work where the student will carry out the activities assigned in the External Work Component.

CARD 2300 CLINICAL PRACTICE I 5 CREDITS 225 HOURS

*Pre-requirement: CARD 2280*

In this phase of practice, the student is involved with the patient in medical consulting, dispensary and / or hospital with the proper skills in the practice of their profession. In this phase, it will rotate in the areas where the electrocardiograms (EKG), treadmill test (TMT), Holter test, telemetry and echocardiography, vascular sonography of upper and lower extremities, both arterial and venous, are performed, applying the various skills learned in its theoretical phase and Laboratory practice with the proper supervision of a professional in charge.

CARD 2220 VASCULAR BRAIN SONOGRAPHY 4 CREDITS 90 HOURS AND CLINICAL APPLICATION

*Pre-requirement: CARD 2150, MEDT 2000, PHSC 2040*

The course provides the student with anatomical, physiological, and pathological knowledge of both the extracranial and intracranial cerebrovascular systems. Throughout the course, teaching will be provided on the management of different equipment, study protocols, patient management and interpretation of encounters that help the student to face the different facets of vascular sonographers within a real work environment. As part of the course, in addition to the hours of theory, the students will have dedicated hours in the laboratory where they will be able to acquire the necessary skills to carry out the different protocols. The course has 180 hours of external work where the student will carry out the activities assigned in the External Work Component.

CARD 2240 PHARMACOLOGY AND CARDIAC 2 CREDITS 30 HOURS PROCEDURES

*Pre-requirement: CARD 2150, SONO 2200*

This course on Pharmacology and Cardiac Procedures has the purpose that the student learns the different drugs and procedures in Cardiology and their interaction and / or dependence on the Ultrasonic study carried out. The student will recognize the use of different drugs in addition to identifying and learning

about other diagnostic methods that complement the cardiovascular study. This will be offered in a theoretical phase. This course has 60 additional hours of external work. The student will carry out the activities assigned in the External Work Component.

CARD 2250 ABDOMINAL DOPPLER 3 CREDITS 90 HOURS

*Pre-requirement: CARD 2150, SONO 2200*

The course provides the student with anatomical, physiological, and pathological knowledge of both the arterial and abdominal venous systems. It will provide teaching on the management of different equipment, study protocols, patient management, and interpretation of encounters in such a way that the student can face the different facets of vascular sonographers within a real work environment. As part of the course, in addition to the hours of theory, the students will have dedicated hours in the laboratory where they will be able to acquire the necessary skills to carry out the different protocols. The course has 180 hours of external work where the student will carry out the activities assigned in the External Work Component.

CARD 2350 CLINICAL PRACTICE II 5 CREDITS 225 HOURS

*Pre-requirement: ALL COURSES*

In this phase of practice, the student is involved with the patient in medical consulting, dispensary and / or hospital with the proper skills in the practice of their profession. In this phase, they will rotate in the areas where the electrocardiograms (EKG), treadmill test (TMT), Holter test, telemetry and echocardiography, cerebrovascular sonography and Abdominal Doppler are performed, applying the various skills learned in their theoretical phase and laboratory practice with due supervision of a professional in charge.

CARD 2270 PRE-REVALID SEMINAR 2 CREDITS 30 HOURS

*Pre-requirement: CARD 2060, CARD 2150, CARD 2160, CARD 2180, CARD 2190, CARD 2210, CARD 2220, CARD 2300, CARD 2240, CARD 2070*

This course provides the student with the opportunity to review the concepts acquired in their formal academic preparation as a medical sonographer. It will discuss Ultrasound Physics and Instrumentation, including the topics of Clinical Safety, Physical Principles, Ultrasound Transducers, Pulsed Instrumentation, Doppler Instrumentation, Hemodynamics, Quality Assurance, Artifacts, Protocols and New Technologies. In addition, the anatomy, physiology, laboratory tests and benign and malignant pathologies of the organs included in cardiac and vascular sonographic studies will be discussed. Finally, comprehensive patient care will be included in a diagnostic sonography unit. These topics will be discussed according to the outline of the Examining Board of Diagnostic and Treatment Imaging Technologists. This course has an additional 60 hours of outside work. The student will carry out the activities assigned in the External Work Component.

CHEM 3501 FUNDAMENTALS OF INORGANIC 3 CREDITS 60 HOURS CHEMISTRY

The course comprises a study of composition, classification, interaction, and nomenclature of matter in chemical terms. The periodic table of elements and measurement and security systems are examined with them. An understanding of chemistry and the importance of its application in the health field is developed in the student. Requires the use of the science lab.

CHEM 3502 FUNDAMENTALS OF ORGANIC 3 CREDITS 60 HOURS CHEMISTRY

*Pre-requirement: CHEM 3501*

This course provides the student with the opportunity to acquire fundamental and necessary knowledge about the nomenclature, chemical and physical properties of organic compounds. Compounds that contain carbon in their structure are studied and provide the components that make up living organisms.

Applications of this knowledge will be made to the practice of nursing, such as the areas of medicine, biochemistry, and nutrition. This course is offered in person and not in person. Requires the use of the science lab.

**COMU 3010 EFFECTIVE COMMUNICATION 3 CREDITS 45 HOURS**

The purpose of the course is for the student to develop oral and written communication skills, the processes, and resources to achieve effective communication. The importance of interpersonal relationships and the impact of the mass media will be highlighted. The teaching and learning process will be carried out through the different techniques of presentations, oral reports, readings alluding to the objectives of the course, and the use of technological and organizational innovations.

**COPR 3011 CONTEMPORARY PROBLEMS 3 CREDITS 45 HOURS**

The course presents and analyzes the current problems that affect the world and Puerto Rican society. Recent world social, political, economic, and cultural situations are discussed, linking them with Puerto Rico. Individual and group activities are provided that stimulate critical thinking skills and attitudes, analysis, and reflection of current important issues in behavior of personal and social commitment.

**ECON 1204 ECONOMY PRINCIPLES 3 CREDITS 45 HOURS**

The purpose of this course is for the student to acquire knowledge about current economic problems that influence daily life. The course includes the study of concepts such as: the curve of production possibilities, supply and demand, national income, opportunity cost and the study of markets. Student knowledge is determined through examinations, case studies, oral presentations, and written reports.

**ECON 2012 PUERTO RICAN ECONOMY 3 CREDITS 45 HOURS**

The main purpose of the course is for the student to analyze the economic development of Puerto Rico from the pre-Columbian stage until today. The various sources of production are studied and how they were determined by aspects of government economic policy in each historical stage. The effect of the economy on the way of life of the Puerto Rican people is also analyzed with an emphasis on the present. The course is developed through the conceptualization, search and practical application of economic models, lectures, analysis of readings, data and graphs, critical reactions, and audiovisual presentations.

**ECON 5102 MANAGERIAL ECONOMY 3 CREDITS 45 HOURS**

It proposes broad approaches based on traditional economics, combined with business perspectives. The course exposes the student to the micro and macro-economic application for management decisions. Students who master this material will be better prepared for middle and senior leadership positions in companies. Knowledge is measured through oral presentations, case analyses, essays, and exams.

**EDUC 1130 INTERVENTION IN CRISIS 4 CREDITS 60 HOURS**

The Crisis Intervention course provides students with the necessary knowledge about what a crisis is, developmental crises, and circumstantial crises. In addition, the course allows the development of skills to be able to recognize and intervene in crisis situations within the context of day care centers and workplaces. The course will present an intervention model and a series of situations where it will be applied. The student will carry out a study assignment related to a topic of the course.

**EDUC 1140 ADMINISTRATION AND STAFF 4 CREDITS 60 HOURS SUPERVISION**

This course provides the student with basic knowledge about the principles and processes that serve as the foundation of contemporary management and administration. In addition, the basic functions of the administrator are studied such as: planning, organization, direction, and control. The discussion of the

decision-making process as an essential element of the manager's work will be a central topic on this course. In addition, the course will give special emphasis to the process of supervision of personnel in a service agency. The student will carry out a study assignment related to a topic of the course.

**EDUC 1110 CHILD DEVELOPMENT 6 CREDITS 90 HOURS**

This course provides the student with the basic knowledge of the development of the child between the ages of newborn to five (5) years of age. Emphasis will be placed on how heredity and the environment interact and how they affect human development. The course will enable the student to understand the physical, sensory, intellectual, and social development of children of these ages. The student will carry out a study assignment related to a topic of the course.

**EDUC 1120 DISCIPLINE MANAGEMENT 3 CREDITS 45 HOURS**

The course Management of Discipline in children provides the student with a broad vision of discipline as a learning and socialization process of children. The student will be trained to develop knowledge and skills in managing children's behavior through strategies leading to self- discipline. The student will carry out a study assignment related to a topic of the course.

**EDUC 1150 BASIC HEALTH CONCEPTS AND CHILDREN 7 CREDITS 75 HOURS SAFETY IN INFANTS AND CHILDREN**

*Pre-requisite: EDUC 1110*

This course provides the student with knowledge about microorganisms, different infections, eating habits, safety in infants and preschoolers and prepares them to understand and know the aspects required to protect and supervise minors in the setting up of childcare centers. The student will carry out a study assignment related to a topic of the course.

**EDUC 1160 CHILDREN WITH SPECIAL NEEDS 5 CREDITS 75 HOURS**

*Pre-requirement: EDUC 1110*

This course provides the student with knowledge, skills and attitudes that allow him to understand the child with special needs in the context of the Puerto Rican social reality. The course provides an understanding of the behavior of these children and strategies to promote their adaptation and integration into the childcare center. In addition, it develops in the student an attitude of acceptance towards diversity. The student will carry out a study assignment related to a topic of the course.

**EDUC 1170 ACTIVITY DESIGN 4 CREDITS 75 HOURS**

*Pre-requirement: EDUC 1110*

This course provides the student with the essential knowledge for the design of childcare activities. The course emphasizes the process of planning learning experiences based on the characteristics and needs of the child. It presents a holistic vision of the development of the child, therefore considering the social, emotional, cognitive, and physical aspects of the learning process. The student will carry out a study assignment related to a topic of the course.

**EDUC 1180 DEVELOPMENT OF PROGRAMS OF SERVICES AND DEVELOPMENT OF PROPOSALS 4 CREDITS 60 HOURS**

*Pre-requirement: EDUC 1170*

This course provides the student with the knowledge, attitudes, and skills necessary to develop proposals framed in the Puerto Rican institutional environment. In addition, it provides basic knowledge about social policy and licensing requirements for establishing a childcare center. The course will have special emphasis on the development of proposals aimed at creating childcare service programs. The student will

carry out a study assignment related to a topic of the course.

EDUC 1190 KIDS AND PRESCHOOL CURRICULUM 4 CREDITS 60 HOURS

*Pre-requirement: EDUC 1170*

This course offers the student the essential knowledge to know the infantile, maternal, and preschool curricula. The course emphasizes philosophical foundations, the role of the educator, parental involvement, and the role of the environment in early childhood development centers. The student will carry out a study assignment related to a topic of the course.

EDUC 1200 INTEGRATION OF ART EXPERIENCES, 4 CREDITS 60 HOURS  
OF MUSIC, AND LITERATURE IN EARLY CHILDHOOD

This course will help students assess, plan, and implement the arts, literature, and music in an integrated preschool curriculum. This course helps the student to evaluate, plan, and implement art, literature, and music in an integrated preschool curriculum. The student will carry out a study assignment related to a topic of the course.

EDUC 1250 SUPERVISED PRACTICE 6 CREDITS 270 HOURS

*Pre-requirements: All previous courses*

The course is designed to offer the student the opportunity to serve as a preschool teacher's aide in preschool childcare and development centers. The student will be able to put into practice the knowledge acquired in the classroom. In addition, you will be able to develop and apply the skills and attitudes necessary for a preschool teacher aide.

EDUC 6140 ASSESSMENT TECHNIQUES 3 CREDITS 45 HOURS

The course aims to train the student in the assessment, analysis, preparation, and application of evaluation techniques that promote the effective teaching and learning process. In the development of the course, the student will select and develop assessment instruments that are aligned with the objectives established in the different courses. This course is offered in face-to-face and distance mode.

EDUC 6145 ANDRAGOGY 3 CREDITS 45 HOURS

The purpose of this course is to discuss the roots of andragogy, teaching theories, and adult learning. In addition, the domain of the learning process is discussed according to different theorists. Also, advances in adult learning, new perspectives in andragogy, technology and neuroscience are analyzed. The evaluation of learning is determined through exams, oral presentations, written works, and bibliographic records.

EDUC 6147 ASSESSMENT TECHNIQUES 3 CREDITS 45 HOURS

The course aims to integrate the student into the assessment principles that are often used in the teaching and learning process. The assessment is the process by which information is collected on the performance of students during the teaching and learning process to improve the level of learning of these and the effectiveness of the teaching work of the student educator. It has the purpose of improving the educational quality within the learning process of the students. The students will make presentations where the different appraisal techniques will be applied. This course is offered in face-to-face and distance mode.

ENTR 1001 ENTREPRENEURSHIP 3 CREDITS 45 HOURS

They will learn negotiation techniques, calculated risk analysis, business opportunities, marketing identification and permissiveness. Design and maintenance of optimal client service and emphasizes the

responsibilities of the Therapist in legal and professional aspects and on client confidentiality.

**ENTR 1024 BUSINESS DEVELOPMENT 3 CREDITS 45 HOURS**

They will learn negotiation techniques, calculated risk analysis, business opportunities, marketing identification and permissiveness. Design and maintenance of optimal customer service. Emphasizes the responsibilities of the professional in legal and professional aspects and on client confidentiality. The course will be based on exams, homework, and written assignments.

#### **GROM 1000 Introduction to Pet Grooming**

In this course, students will explain the responsibilities and essential tasks of the professional pet groomer's role. They will also examine the regulatory laws of the profession, methods of compensation, and proper valuation of these services in the pet grooming industry. Furthermore, they will develop knowledge of the methods for grooming, preventing accidents and illnesses in pets, and maintaining the establishment. This course is part of the integration model between the Professional Pet Grooming Clinics and the academic program. The student will perform tasks and direct services at the Professional Pet Grooming Clinics.

2 credits

Prerequisite: None

Corequisite: None

#### **GROM 1010 Anatomy and Animal Husbandry**

In this course, students will examine the basic concepts of the anatomy and animal husbandry of domestic animals (dogs and cats). They will describe the skeletal system, the integumentary system and its accessory organs (nails), sensory organs (eyes and ears), anal glands, and the most common pathologies associated with these. They will explain the different breeds, their history, animal husbandry, and the anatomy of domestic animals for the correct application of grooming and cutting patterns.

2 credits

Prerequisite: 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 emergency management plans and safety protocols for accident prevention. This course is part of the integration model between the Professional Pet Grooming Clinics and the academic program. The student will perform tasks and direct services at the Professional Pet Grooming Clinics.

2 credits

Prerequisite: None

Corequisite: None

#### **GROM 1030L Pre-Grooming Techniques and Laboratory**

In this course, students will apply the necessary knowledge for the process of preparing pets for basic or full grooming. They will explain the importance of regular pet grooming and its effects on the pet's coat, skin, and overall health. They will also differentiate the tools, treatments, and grooming equipment most commonly used for pet hygiene care. This course is part of the integration model between the Professional Pet Grooming Clinics and the academic program. The student will perform tasks and direct services at the Professional Pet Grooming Clinics.

3 credits

Prerequisite: None

Corequisite: None

#### **GROM 1040L Principles of Behavior and Laboratory**

In this course, students will examine canine training terminology and methods. They will analyze theories of canine psychology useful for evaluating pets with behavioral problems. Students will apply animal handling and restraint skills in the work area. Furthermore, they will promote training techniques for dogs from early life stages to modify behavior and reduce aggression levels.

3 credits

Prerequisite: None

Corequisite: None

#### **GROM 1100L Basic Grooming and Laboratory**

In this course, students will apply skills for the proper maintenance of pet grooming tools and equipment. They will determine 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. This course is part of the integration model between the Professional Pet Grooming Clinics and the academic program. The student will perform tasks and direct services at the Professional Pet Grooming Clinics.

3 credits

Prerequisite: None

Corequisite: None

#### **GROM 1110 Basic Business and Marketing**

In this course, students will discuss the processes, procedures, and requirements necessary for establishing and running a business, as well as basic concepts of administration and customer service in Puerto Rico. They will evaluate tools and mechanisms related to the interests and needs of new clients. Likewise, they will apply marketing strategies, focusing on business positioning against competitors and challenges faced by entrepreneurs for business success.

2 credits

Prerequisite: None

Corequisite: None

#### **GROM 1120L - Grooming Cuts and Styles I and Laboratory**

In this course, students will analyze existing styles in dog and cat grooming. They will associate the anatomy of the most common breeds with the pet's cutting patterns. They will apply master techniques of pattern and cutting styles. This course is part of the integration model between the Professional Pet Grooming Clinics and the academic program. The student will perform tasks and direct services at the Professional Pet Grooming Clinics.

3 credits

Prerequisite: GROM 1000, GROM 1030L, GROM 1100L

Corequisite: None

#### **GROM 1130L Creative Grooming and Asian Fusions and Laboratory**

In this course, students will examine proper techniques for specialized cuts in creative dog grooming. They will value artistic expression in creating innovative designs for different dog breeds. In addition, they will perform specialized cuts for the hygiene, health, and beauty care of pets. This course is part of the integration model between the Professional Pet Grooming Clinics and the academic program. The student will perform tasks and direct services at the Professional Pet Grooming Clinics.

3 credits

Prerequisite: GROM 1000, GROM 1030L, GROM 1100L

Corequisite: None

#### **GROM 1200L - Advanced Grooming Techniques and Laboratory**

In this course, students will apply grooming standards and commercial and competition patterns according to the breed. They will use appropriate bathing, drying, and clipping techniques based on the pet's coat and health condition. This course is part of the integration model between the Professional Pet Grooming Clinics and the academic program. The student will perform tasks and direct services at the Professional Pet Grooming Clinics.

3 credits

Prerequisite: GROM 1000, GROM 1030L, GROM 1100L

Corequisite: None

#### **GROM 1210L Grooming Cuts and Styles II and Laboratory**

In this course, students will employ existing grooming styles for dogs and cats. They will examine the anatomy of major breeds considering clipping patterns and coat type. They will apply master techniques in cutting patterns and styles, as well as the specific care and precautions needed for handling felines and canines. This course is part of the integration model between the Professional Pet Grooming Clinics and the academic program. The student will perform tasks and direct services at the Professional Pet Grooming Clinics.

3 credits

Prerequisite: GROM 1120L

Corequisite: None

#### **GROM 1220L Grooming Seminar and Laboratory**

In this course, students will integrate the concepts, skills, and aptitudes required in the professional practice of pet grooming. They will also apply professional techniques and skills both in the institution's laboratory and in professional settings, such as dog and cat grooming salons. Likewise, they will practice cutting techniques and procedures for handling errors and critical cases when working with pets. This course is part of the integration model between the Professional Pet Grooming Clinics and the academic program. The student will perform tasks and direct services at the Professional Pet Grooming Clinics.

2 credits

Prerequisite: GROM 1120L

Corequisite: None

#### **GROM 1300P Grooming Practice**

In this course, students will practice grooming techniques and skills in veterinary clinics, and 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 Professional Pet Grooming Clinics and the academic program. The student will perform tasks and direct services at the Professional Pet Grooming Clinics.

4 credits

Prerequisite: GROM 1120L, GROM 1130L and GROM 1200L

Corequisite: None

#### **GROM 1301P – Grooming Practice**

In this course, students will practice grooming techniques and skills in veterinary clinics, pet grooming salons,

and farm supply stores, 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.

3 credits

Prerequisite: All GROM courses

Corequisite: None

#### 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

Prerequisite: None

Corequisite: None

#### LABS 1000L Introduction to the Laboratory Assistant Profession and Laboratory

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.

3 credits

Prerequisite: None

Corequisite: None

#### LABS 1010L General Science Compendium and Laboratory

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.

2 credits Prerequisite: None Corequisite: None

#### LABS 1020L General Data Entry and Billing Processes for Laboratory Services

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.

3 credits

Prerequisite: MEDT 1000 Corequisite: None

#### LABS 1030L Handling of Samples in Hematology, Chemistry, Urinalysis, Coagulation, Serology, Immunology, and Molecular Biology, and Laboratory

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.

4 credits

Prerequisite: LABS 1000L Corequisite: None

#### LABS 1040L Handling of Samples and Blood Components in Blood Banks, and Laboratory

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.

2 credits

Prerequisite: LABS 1000L Corequisite: None

#### LABS 1050L Handling of Pathological Samples and Laboratory

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.

3 credits

Prerequisite: BIOL 1000

Corequisite: None

#### LABS 1060 Integrative Seminar: Laboratory Assistant

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.

2 credits

Prerequisite: LABS1000L, LABS1010L, LABS1020L, LABS1030L, LABS1040L, LABS1050L

Corequisite: None

#### LABS 1070P Laboratory Assistant Clinical Practice

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.

4 credits

Prerequisite: LABS1000L, LABS1010L, LABS1020L, LABS1030L, LABS1040L, LABS1050L

Corequisite: None

**MATH 1101 MATH CONCEPTS 3 CREDITS 45 HOURS**

The course offers the student basic mathematical concepts in general and specific operations for use within the profession. It includes operations such as: decimals, percentages, fractions, rounding, unit conversion and clearing of variables. The student will carry out a study assignment related to a topic of the course.

**MATH 1110 COMMERCIAL MATH 3 CREDITS 45 HOURS**

The purpose of this course is to study and develop the basic and necessary mathematics skills for commerce. Includes a review of basic arithmetic operations applied to decimals, fractions, and percentages. The student will carry out a study assignment related to a topic of the course.

**MATH 1206 BUSINESS MATH 3 CREDITS 60 HOURS**

The purpose of this course is to develop the basic and necessary skills of mathematics for application in business and industry. It consists of a review of basic arithmetic operations, applied to cardinals, decimals, fractions and hundreds, computation of interest (simple and compound) and discounts on purchases. In each of these areas, the application of word problem solving is emphasized. The student's knowledge is determined through practical exercises, tests, and group work.

**MATH 2002 GENERAL MATH 3 CREDITS 45 HOURS**

The course is designed for the student to acquire knowledge and skills in basic mathematical operations for solving mathematical operations with real numbers in all their expressions. In addition, to know and interpret the Roman numerals.

**MATH 2005 TECHNICAL MATH3 CREDITS 60 HOURS**

This course is developed to provide the student with the math skills required in the field of computer-derived technologies. The areas that the course emphasizes are computer programming, application management, and topics aimed at the required certifications. The course emphasizes the application of practical problem solving in the handling of number systems, Boolean logic, exponent and radical, operations of linear equations, logarithmic functions, systems of equations and coordinates. The course requires intense practice and various assessments.

**MATH 2050 - Applied Mathematics**

In this course, students will analyze different problems and situations found in information systems using set theory, propositional logic, and Boolean algebra as a basis. Students will solve combinatorial problems and arithmetic sequences. Furthermore, they will examine various abstract structures using graphs and trees for their explanation and implementation.

3 credits Prerequisite: None Corequisite: None

**MEDS 1100 BASIC COMPUTERIZED 3 CREDITS 90 HOURS KEYBOARDING**

This course is designed to develop typing skills for speed and accuracy on the computer keyboard. Through it the student will master the learning of the alphabetic, numeric and symbols keyboard. In addition, you will apply the general and theoretical concepts of the use of the computer keyboard and the Microsoft Word program, the preparation of memoranda and simple business letters will be presented. In addition, the student will develop desirable habits and attitudes within a positive and favorable work environment. The student will carry out a study assignment related to a topic of the course.

**MEDS 1130 INTERMEDIATE AND ADVANCED3 CREDITS 90 HOURS KEYBOARDING**

*Pre-requirement: MEDS 1100*

This course continues with the development of typing skills and writing by touch using the alphabetic,

numeric and symbol keyboard. Speed and accuracy are also developed to a minimum of 25 words per minute in five (5) minute tests. Production exercises such as memos, letters with special parts, reports with footnotes, tabs, and tables are presented. The computer and the Microsoft Word program are used as a means of producing business documents. The student will carry out a study assignment related to a topic of the course.

**MEDS 1120 DOCUMENT MANAGEMENT 3 CREDITS 60 HOURS**

This course provides the student with the knowledge that will allow him to manage, preserve and transfer information in different filing and document management systems in commercial, professional and government offices. The rules for alphabetizing using the different manual and computerized database systems, the transfer and disposition of documents are presented. The student will carry out a study assignment related to a topic of the course.

**MEDS 1150 OFFICE ADMINISTRATION 2 CREDITS 30 HOURS**

This course is designed to develop the student the skills to manage all types of office. The basic processes and principles in administration and topics related to the planning and organization of the basic tasks of the assistant are presented. Techniques for job search and professional development are also presented. It includes office automation and its impact on the modern office. The student will carry out a study assignment related to a topic of the course.

**MEDS 1110 CREDIT AND MEDICAL INSURANCE 3 CREDITS 90 HOURS BILLING I**

*Pre-requirement: MEDT 1100*

Designed so that the student can obtain basic knowledge and skills that will help them develop better management of billing and collection for medical and hospital services rendered to the patient. You will also learn about the organization, flowchart and development of a billing and collection system in medical offices and institutions. The student will carry out a study assignment related to a topic of the course.

**MEDS 1170 CREDIT AND MEDICAL INSURANCE 3 CREDITS 90 HOURS BILLING II**

*Pre-requirements: MEDT 1100, MEDS 1110, MEDS 1140*

Designed so that the student can obtain basic knowledge and skills in electronic billing that will help him / her in the development of a better management of billing and collection for medical and hospital services rendered to the patient. Also, you will gain knowledge of computerized billing systems: Med One2 and Immediate (Professional and Institutional). The student will carry out a study assignment related to a topic of the course.

**MEDS 1160 PRINCIPLES OF MEDICAL RECORDS 2 CREDITS 30 HOURS**

This course has been designed so that the student can know the content of a basic medical record by type and service. It will help you develop the knowledge and management of the different formats where you can abstract information, for the release of an invoice, complying with the standards according to HIPAA law on the confidentiality of the clinical record in hospital and outpatient services. In addition, the student is trained in the management of an electronic Medical Record program. The student will carry out a study assignment related to a topic of the course.

**MEDS 1140 BASIC PRINCIPLES OF CLASSIFICATION 4 CREDITS 60 HOURS AND CODING ICD-9 - CM AND ICD-10 CM /PCS AND CPT**

The coding and classification course trains the student to know and use the ICD-books 10-CM / PCS and CPT. Develop understanding of code logic through medical documentation. The skill of searching for diagnoses and / or procedures in the index and tabulation of books is developed. In addition, it enables the student

to select the code according to the location and type of service. The student will carry out a study assignment related to a topic of the course.

**MEDS 1250 PRACTICE IN MEDICAL SECRETARY BILLING 5 CREDITS 225 HOURS AND WITH INSURANCE**

*Pre-requirements: All previous courses*

The Internship in Medical Secretarial is designed to offer the student the opportunity to work as a medical secretary in hospitals, clinical laboratories, and medical offices. The student will put into practice the theoretical concepts presented in the classroom related to billing medical insurance. In addition, you will put into practice typing skills, filing the documents that are generated in the office and the skills required in office work in general. In this practice the student will have the opportunity to fill out forms for commercial medical insurance.

**MEDT 1100 MEDICAL TERMINOLOGY 8 CREDITS 120 HOURS**

This course has been designed with the objective of introducing students to the field of Medical Terminology, medical terms used in the various diagnostic methods and their relationship with Medical Plan Billing. It focuses on the formation of medical words by combining prefixes, suffixes, roots, and abbreviations. Divided in its first phase by the organization systems of the anatomical structure of the human body, musculoskeletal, nervous system, cardiovascular system, blood and lymphatic, glandular, respiratory and oncology and in its second phase by the gastrointestinal, genitourinary, integumentary and system female and male reproductive. In addition, they would know about dentistry, neonatology, eyes, and ears. Rather, it is intended to familiarize the student of Billing and Collection of Medical Insurance with the knowledge of the normal functioning of the body. In this way, you can understand deviations from normal in the event of illness or accident and provide better service to the patient. The student will carry out a study assignment related to a topic of the course.

**MEDT 1111 MEDICAL TERMINOLOGY 2 CREDITS 30 HOURS**

This course provides the student with an introduction to the study of medical terminology. Includes roots, prefixes, suffixes, and the etiology of general medical terminology. Emphasis is placed on technical language, with applications aimed at student performance in their role as a professional in the health area. The student will carry out the activities assigned in the External Work Component.

**MEDT 2000 MEDICAL TERMINOLOGY 2 CREDITS 30 Hours**

Study of medical terminology. Includes roots, prefixes, suffixes, and the etiology of general medical terminology. Emphasis is placed on technical language, with applications aimed at student performance in their role as a health professional. This course has an additional 60 hours of outside work.

**MICR 111 BASIC CONCEPTS OF MICROBIOLOGY 3 CREDITS 60 HOURS**

This course provides the student with an introductory overview of the basic concepts of microbiology. The content includes the classifications of the most common microorganisms, their characteristics, and the means of transmission of the most common high-risk diseases. The student will carry out the activities assigned in the External Work Component.

**MEDT 1000 Medical Terminology in the Laboratory**

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.

2 credits

Prerequisite: BIOL 1000

Corequisite: None

#### **MICR 1000L Handling of Samples and Basic Microbiology and Parasitology Concepts, and Laboratory**

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.

3 credits

Prerequisite: LABS 1000L

Corequisite: None

#### **MESE 1010 Medical Terminology**

In this course, students will evaluate the composition, structure and derivation of words that are part of medical terminology. 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.

3 credits

Prerequisite: None

#### **STAT 3103 STATISTICS 3 CREDITS 45 HOURS**

The purpose of this course is to familiarize the students with the basic concepts and tools of statistics that allow them to make effective decisions. The course content includes data collection and tabulation, table construction, sampling, measures of central tendency, measures of dispersion, graphs, probability, and others. The student's knowledge is determined through exercises, exams, and research papers.

#### **VETR 1000 Introduction to Veterinary Medicine and Animal Biosafety**

In this course, students will assess the ethical and professional responsibilities of a veterinary assistant in accordance with safety, health promotion, and legal regulations of the practice. They will apply technical skills in biosecurity, such as sterilizing areas and equipment, controlling infection transmission, and other biological and occupational risk factors. Furthermore, they will provide guidance on pet management and the responsibilities of pet owners regarding their care.

2 credits

Prerequisite: None

Corequisite: None

#### **VETR 1010L General Principles of the Veterinary Operating Room and Laboratory**

In this course, students will analyze the procedures of veterinary surgical interventions and the principles of aseptic techniques. They will apply skills in preparing personnel, equipment, accessories, and procedures for surgical interventions. Likewise, they will prepare the surgical area, considering the specific procedure required for each patient.

2 credits

Prerequisite: None

Corequisite: None

**VETR 1020L Anatomy and Physiology of Animals and Laboratory**

In this course, students will examine the history and origins of the study of veterinary anatomy and physiology. They will analyze the functions of the integumentary, skeletal, and muscular systems of various domestic animals. Moreover, they will differentiate the primary functions of the systems that compose the animal body.

3 credits

Prerequisite: 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 various types of microorganisms. Furthermore, they will discuss the importance of studying microorganisms in the fields of veterinary medicine and the food industry.

2 credits

Prerequisite: VETR 1000

Corequisite: None

**VETR 1110 Veterinary Pathology, Toxicology, and Pharmacology**

In this course, students will analyze 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 apply knowledge of techniques for administering and dosing veterinary medications and treatments. They will evaluate the effects of drugs on animals, the modifications of pathological processes, and the alterations they cause.

2 credits

Prerequisite: MATE 1222, VETR 1020L

Corequisite: None

**VETR 1120L Principles of Veterinary Nursing and Laboratory**

In this course, students will examine the basic elements of veterinary nursing. They will also develop skills for disease prevention in animals and for managing and caring for their health. Additionally, they will discuss therapeutic techniques for animals during recovery and ways to support pet owners dealing with the loss of a pet.

3 credits

Prerequisite: VETR 1020L

Corequisite: None

**VETR 1130L Management, Care, and Diseases of Farm Animals and Laboratory**

In this course, students will determine the importance of livestock and safety in the livestock industry. They will also examine the characteristics of farm animals. Furthermore, they will apply their knowledge in the care and management of these animals.

3 credits

Prerequisite: VETR 1000, VETR 1020L

Corequisite: None

**VETR 1140L Clinical Veterinary Procedures and Laboratory**

In this course, students will examine the clinical procedures applicable to the practice of veterinary medicine. They will also differentiate the most commonly used tests for hematology, immunology, urinalysis, blood chemistry, microbiology, parasitology, and cytology, among others. Additionally, they will perform sample collection and handling under the supervision of a veterinarian.

3 credits

Prerequisite: 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 used 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

Prerequisite: VETR 1000, VETR 1010L, VETR 1020L

Corequisite: None

**VETR 1210 Animal Nutrition**

In this course, students will explain the fundamental elements of animal nutrition. They will classify foods based on their composition, caloric content, and nutritional value. In addition, they will examine methods for estimating food intake, the digestibility of foods, and the factors that influence it.

1 credit

Prerequisite: 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 recognize the different imaging modes and the most common artifacts in veterinary sonography for diagnosing abdominal pathologies. Furthermore, they will perform the necessary sonographic techniques to obtain high-quality diagnostic images.

3 credits

Prerequisite: VETR 1000, VETR 1010L, VETR 1020L

Corequisite: None

**VETR 1300P Veterinary Clinical Practice**

In this course, students will employ the necessary biosafety protocols in animal health care. They will practice techniques for restraint, handling, emergency response, and first aid in clinical procedures. Students will demonstrate professional, ethical, and respectful behavior with particular attention to confidentiality.

6 credits

Prerequisite: *All VETR courses*

**VETR 1301P – Veterinary Clinical Practice**

In this course, students will implement the necessary procedures and protocols related to animal health in a veterinary clinic. They will use appropriate techniques in routine surgical and clinical procedures in veterinary practice. Furthermore, they will demonstrate professional and ethical conduct in both their communication and the performance of their duties in veterinary practice.

Prerequisite: GROM 1000, GROM 1030L, GROM 1100L

Corequisite: None

### **CONCENTRATION AND SPECIALTY COURSES**

ACCO 1201 INTRODUCTION TO ACCOUNTING I 4 CREDITS 60 HOURS

Introduction to generally accepted principles in accounting practice. Analysis and study of the accounting equation. Familiarization with the real accounts, nominal accounts, and the movement of accounts. Study and systematic practice of the different phases of the accounting cycle, accounting system and periodic reports for a commercial company, cash control, types, and methods of inventory. The student's knowledge will be determined through practical exercises and exams.

ACCO 1202 INTRODUCTION TO ACCOUNTING II 4 CREDITS 60 HOURS

*Pre-requirement: ACCO 1201*

Review and emphasis on the most important areas previously studied in accounting I. The topics to be covered will be types of businesses and their structure, formation, division of profits and liquidation of a company. We will analyze the organization and operation of a corporation, its content and information, and long-term obligations and investments. Additionally, we will study stock investments, basic concepts of managerial accounting and the student's knowledge will be determined through practical exercises and exams.

ACCO 2200 ADMINISTRATIVE ACCOUNTING 3 CREDITS 60 HOURS

The purpose of this course is to introduce the student to the basic principles of accounting, focused on analysis for decision making based on internal accounting information. Topics based on the accounting equation, the accounting cycle, financial statements, cash management and its internal control and evaluation methods are discussed. Student knowledge is determined through practical exercises, case studies, oral presentations, research, and exams.

ACCO 2201 BASIC ACCOUNTING 3 CREDITS 45 HOURS

The course introduces, in a theoretical and practical way, the basic principles about the function, systems and procedures of business accounting. We will apply definitions of concepts, examples, analysis and demonstrations. Financial statements, internal controls, petty cash management, bank reconciliation and payroll preparation will be presented. The student will check the knowledge acquired through practical exercises, case studies, problem solving and reflective diary.

ACCO 4001 MANAGERIAL ACCOUNTING 3 CREDITS 45 HOURS

*Pre-requirement: ACCO 2200*

The purpose of this course is to take the student through the ABC (Activity-Based Costing) method, Cost-Volume analysis, systems, cost behavior, budget, standard cost, and performance measures. Additionally, it emphasizes the use and analysis of economic and accounting information. Student knowledge is determined through practical exercises, case studies, oral presentations, research, and exams.

ACCO 5104 MANAGEMENT ACCOUNTING\* 3 CREDITS 45 HOURS

Emphasizes the synthesis and optimal application of accounting in administrative processes. The manager needs to have control of the business to obtain, effectively and efficiently, its objectives. The analytical tools that accounting provides are important to this process. The course provides the student with the skills of analysis, synthesis, and evaluation necessary for making managerial decisions, based on data, and using or recommending the different courses of action. Knowledge is measured through tests, case analysis, and practice exercises.

### CISE 1000L Fundamentals of Cybersecurity and Laboratory

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 applying the theoretical knowledge acquired.

3 credits

Prerequisite: None

Corequisite: None

### CISE 1050 Information Systems Auditing

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.

3 credits

Prerequisite: CISE 1000L

Corequisite: None

### CISE 2000L Offensive and Defensive Security and Laboratory

In this course, students will analyze the regulatory framework of cybersecurity using strategies and tools for incident response planning. They will apply both offensive and defensive technological strategies and tools for configuring endpoint security (firewall), intrusion detection systems (IDS), and intrusion prevention systems (IPS) to counter emerging threats. They will design specific strategies to improve cybersecurity posture, address the evolving challenges of the threat landscape, and support the business continuity plan (BCP).

3 credits

Prerequisite: CISE 1000L

Corequisite: None

### CISE 3000L Ethical Hacking and Laboratory

In this course, students will apply security analysis and evaluation techniques to identify vulnerabilities and weaknesses in computer systems. They will also analyze methodologies and tools to conduct penetration testing and assess system resilience against cyberattacks. In addition, they will evaluate preventive and corrective measures to strengthen the security of systems and networks. *This course includes the use of a simulator.*

4 credits

Prerequisites: CISE 1050, CISE 2000L

Corequisite: None

### CISE 3050L Forensic Analysis and Laboratory

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 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.

3 credits

Prerequisites: CISE 1000L, CISE 1050, CISE 2000L

Corequisite: None

**COMP 1000L Components of Personal Computers and Laboratory**

In this course, students will evaluate the types and characteristics of technological devices and components used in computers. They will choose 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 for applying the theoretical knowledge acquired.

3 credits

Prerequisite: None

Corequisite: None

**COMP 1050L Installation of Servers and Laboratory**

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, along with 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 operating systems. This course includes practical laboratory exercises for applying the theoretical knowledge acquired.

3 credits

Prerequisites: COMP 1000L, INTE 1100L

Corequisite: None

**COMP 1100 INTRODUCTION TO COMPUTERS 2 CREDITS 60 HOURS**

Through this course the student will learn the basic functions of the computer, the alphabetic keyboard, to make a letter, a table, and a resume using the Microsoft Word Program. In addition, you will learn how to present in PowerPoint. This course has 7.5 additional hours of outside work. The student will carry out a study assignment related to a topic of the course.

**COMP 1110 INTRODUCTION TO COMPUTERS 1 CREDIT 30 HOURS**

Introduces the student to the world of computers, its composition, flexibility, and application of the same. Through this course the student will learn the basic functions of the computer, the alphabetic and numeric keyboard, and basic functions of the computer. This course has 7.5 additional hours of outside work. The student will carry out a study assignment related to a topic of the course.

**COMP 1205 INTRODUCTION TO 3 CREDITS 60 HOURS COMPUTERS**

This course exposes the student to the world of computers. A brief history of computers, applications, advantages, and the composition of a computerized system is presented. It offers knowledge about the electronic equipment used to process data, its interrelation with the computer and how it communicates using the current operating system and application programs to create presentations, electronic sheets, publications, and documents. He has practice in the basic handling of the Internet and E-mail. Lectures, demonstrations, practical and application exercises, among others, will be used to teach the course. Requires laboratory use.

**COMP 1100 INTRODUCTION TO COMPUTERS 2 CREDITS 60 HOURS**

Through this course the student will learn the basic functions of the computer, the alphabetic keyboard, to make a letter, a table, and a resume using the Microsoft Word Program. In addition, you will learn how to present in PowerPoint. This course has 7.5 additional hours of outside work. The student will carry out a study assignment related to a topic of the course.

**COMP 1205 INTRODUCTION TO 3 CREDITS 60 HOURS COMPUTERS**

This course exposes the student to the world of computers. A brief history of computers, applications, advantages, and the composition of a computerized system is presented. It offers knowledge about the electronic equipment used to process data, its interrelation with the computer and how it communicates using the current operating system and application programs to create presentations, electronic sheets, publications, and documents. He has practice in the basic handling of the Internet and E-mail. Lectures, demonstrations, practical and application exercises, among others, will be used to teach the course. Requires laboratory use.

**COMP 2000L Diagnosis and Repair of Computers and Laboratory I**

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 applying the theoretical knowledge acquired.

3 credits

Prerequisite: COMP 1000L

Corequisite: None

**COMP 2010L Diagnosis and Repair of Computers and Laboratory II**

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 applying the theoretical knowledge acquired.

3 credits

Prerequisite: COMP 2000L

Corequisite: None

**COMP 2050L Design and Configuration of Servers and Laboratory**

In this course, students will develop designs for configuring Windows Server services. They will also employ 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 for applying the theoretical knowledge acquired.

3 credits

Prerequisite: COMP 1050L

Corequisite: None

**COMP 2070 CompTIA A+ Certification Exam Review**

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.

3 credits

Prerequisite: INTE 2470L

Corequisite: None

### COMP 2080L Fundamentals of Cloud Computing and Laboratory

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 applying the theoretical knowledge acquired.

3 credits

Prerequisites: COMP 1050L, INTE 2440L

Corequisite: None

### COMP 3000 CompTIA Network+ Certification Exam Review

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. This course will use a simulator with practical exercises to prepare students for the CompTIA Security+ certification exam.

3 credits

Prerequisite: INTE 2770L

Corequisite: None

### COMP 3050 CompTIA Security + Certification Exam Review

In this course, students will evaluate various scenarios for detecting threats, attacks, and vulnerabilities in computer systems. In addition, they will apply policies, processes, and procedures for resolving security incidents. They will also explain the importance of governance systems and security regulations in business environments. This course will use a simulator with practical exercises to prepare students for the CompTIA Security+ certification exam.

3 credits

Prerequisites: CISE 1050, CISE 2000L, CISE 3000L

Corequisite: None

### COMP 3070L Server Administration and Laboratory

In this course, students will develop skills in Windows Server administration. They will also implement the installation and configuration of containers in Docker. In addition, they will apply virtualization and redundancy technologies for server management to reduce downtime and achieve business continuity.

3 credits

Prerequisite: COMP 2050L

Corequisite: None

### COMP 1503 DESIGN AND ASSEMBLY 3 CREDITS 60 HOURS OF PERSONAL COMPUTERS

In this course, the student is introduced to personal computers and their physical components. You will design and assemble a computer. Recognize and evaluate features and prices of the parts that make it up. Students will be assessed through tests, labs, and a special project. Requires laboratory use.

### COMP 1504 FOUNDATIONS OF 3 CREDITS 60 HOURS OPERATING SYSTEMS

*Pre-requirement: COMP 1205*

This course provides knowledge and skills to configure, administer, and install operating systems. This course offers the fundamentals for operating system certifications. Images, "hardware" and "software" configurations of the network will be created and deployed. Backup copies will be made, and system information will be restored. It offers exercises in the installation and configuration of operating systems.

Knowledge will be measured with short tests, labs, and exams. Requires laboratory use.

**COMP 1514      COMPONENTS OF THE 3 CREDITS      60 HOURS PERSONAL COMPUTERS**

The course is intended to introduce the personal computer and its physical components. The course describes the operation of each of the physical components of the computer, its function, the types of connectors, the way to interconnect them and the required tools. Knowledge will be determined through quizzes, assignments, and quizzes. Requires laboratory use.

**COMP 2407      IMPLEMENTATION OF 3 CREDITS      60 HOURS COMPUTER SECURITY**

*Pre-requisite: COMP 1205*

This course focuses on offering the necessary mechanisms for security in local information systems or in network environments. It covers the origin, evolution, and protection mechanisms against viruses, worms, and Trojans. Security matters will be learned regarding cryptography, intrusion detection, "spyware", "ad-ware" and unwanted advertising. Emphasis is placed on file recovery methods and safeguarding important information using the current operating system and commercial tools. Demonstrations, lectures, and practical exercises are used to teach the course. Requires laboratory use.

**COMP 2418      NETWORK FUNDAMENTALS      4 CREDITS      75 HOURS**

*Pre-requirement: COMP 1504*

The basic concepts about the different types of communication networks and the integration of these to other work systems, whether by wired or wireless systems, will be studied. The different types of servers will also be studied to establish an effective and functional system. Knowledge will be determined through tests, lab work, assignments, and quizzes. Requires laboratory use

**COMP 2515      DIAGNOSIS AND REPAIR OF 6 CREDITS      120 HOURS ELECTRONIC DEVICES**

*Pre-requirements: COMP 1205, COMP 1514*

This course discusses the different problems at the "hardware" or "software" level in personal computers, mobile devices, and video game consoles. The student will diagnose and identify their origin and will select the correct tools to solve them. The students will be trained to repair and update personal computers, mobile devices, and video game consoles and in the use of flow charts for problem solving. Knowledge will be measured through short tests, assignments, special oral and written work, labs, portfolio, and practical work. Requires laboratory use.

**COMP 2516      TEST REVIEW FOR 4 CREDIT      75 HOURS COMPTIA ACERTIFICATION+**

*Pre-requirements: COMP 1205, COMP 1503, COMP 1504, COMP 1514, COMP 2515, COMP 2517, ENGL 1101, ENGL 1102*

This course prepares the student to challenge the CompTIA A + certification exam. Students will review essential skills and information necessary to install, upgrade, repair, configure, troubleshoot, optimize, and perform preventive maintenance of hardware and operating systems of personal computers (PCs) and electronic devices. Knowledge will be measured through short tests, assignments, oral presentations, labs, and exams. Requires laboratory use.

**COMP 2517      PRINTERS1 CREDIT      15 HOURS**

*Pre-requirement: COMP 1205*

This course discusses the principles of using, installing, configuring, optimizing, and upgrading next-generation printers. The tools, the basic procedures, and techniques for diagnosing their failures. Knowledge will be measured through short tests, labs, and exams.

COMP 3421 SERVER CONFIGURATION 3 CREDITS 60 HOURS

*Pre-requirement: COMP 2422*

This class is designed to provide the student with the necessary skills for the administration of a server infrastructure for a business organization. The student will learn to manage the infrastructure, web, applications, usage scripts and files that are written to perform tasks on a regular basis. Knowledge will be measured through short tests, lab exercises, and exams. Requires laboratory use.

COMP 3423 ADVANCED IMPLEMENTATION OF INFRASTRUCTURE 3 CREDITS 60 HOURS SERVERS

*Pre-requisite: COMP 2424*

Advanced IT topics in corporate environments are covered. Emphasizing surveillance, virtualization, and high availability. You must have a thorough understanding of a basic server infrastructure. You will be able to manage and maintain a server infrastructure, implement high availability business infrastructures and server virtualization. You will probably be able to choose suitable solutions in specific scenarios or from a set of technologies for that scenario. You will then be able to determine the optimal option for your implementation. Knowledge will be measured through virtual scenarios, case analysis, and practice exercises. Requires laboratory use.

COMP 3424 FUNDAMENTALS OF WIRELESS 3 CREDITS 60 HOURS ANALYSIS, WEB, AND FORENSIC

*Pre-requirements: COMP 2422, COMP 2424*

This course organizes and summarizes the relevant connection today between internet attacks and existing vulnerabilities in any wireless network. The student will achieve, with basic principles, a solid understanding of wireless and web insecurities along with the latest tools and techniques used for their exploitation. Mitigation techniques and safe implementation of the technologies discussed will be explored. In addition, basic principles of forensic analysis are explored through the capture and correct analysis of evidence and the legal connotations associated with this practice. Knowledge will be measured through short tests, labs, and exams. Requires laboratory use.

COMP 3501 SCRIPTING LANGUAGES 3 CREDITS 60 HOURS

*Pre-requisite: COMP 1504*

The course aims to enrich philosophical knowledge in oriented objects, using scripting languages. Areas of interest will cover network, database, and numerical analysis methods using scripting languages. They will develop strategic techniques to implement and automate methods of collecting information in different computer science scenarios. The course will be evaluated based on the progress of small projects by topic and a series of written evaluations. Requires laboratory use.

COMP 4001 "ETHICAL HACKING" IN THE 4 CREDITS 75 HOURS NETWORK ENVIRONMENT

*Pre-requirements: COMP 2422, COMP 2423, COMP 2424*

This course will explore the various means available to an intruder to access computer resources. The methodology for investigating weaknesses in the network is shown and finding and mitigating them before they are exploited by an attacker. Through practical exercises, the processes of information gathering, exploration, enumeration, attacks, post-exploitation, erasure of footprints, social engineering, and others are explored. Knowledge will be measured through short tests, labs, and exams. Requires laboratory use.

COMP 4426 SUPERVISED PROJECT 4 CREDITS 75 HOURS

*Pre-requirements: COMP 2422, COMP 2423, COMP 2424, (last period) COMP 2516*

Network systems implementation project and associated security in all its phases, such as: documentation, testing, review; as well as all the techniques, design, and implementation. Knowledge will

be measured through monthly reports and the Final Project. Requires laboratory use. This course must be approved with a minimum grade of B.

#### **HEMA 6010 Fundamentals of Health Care Management**

In this course, students will analyze the fundamentals of health care management and perspectives on providing health services. They will distinguish the types of health facilities, their structure, and their components, including the human capital that operates them under the leadership of the health care manager. In addition, they will value the importance of quality indicators in the development and revision of institutional policies, as well as of information systems for collecting data that facilitates the measurement of efficiency in the provision of health services.

3 credits

Prerequisite: None

Co-requisite: None

#### **HEMA 6015 Health Planning and Policies**

In this course, students will analyze the fundamentals related to the development of public policy for the solution or mitigation of problems that contribute to the prevalence and incidence of diseases in the population. They will interpret the challenges to health access based on social determinants and the management of comorbidities in the population for the development of federal and state public policy. Moreover, they will propose changes in the provision of health services according to the needs and problems identified in the population. Furthermore, they will design an institutional policy plan with an impact on the community based on public policy, including strategies for the improvement in the provision of services to patients.

3 credits

Prerequisite: None

Co-requisite: None

#### **HEMA 6020 Legal and Ethical Issues in Health Care Management**

In this course, students will examine laws and ethical issues associated with the healthcare industry. They will evaluate the civil legal and criminal issues related to the rendering of health services at the federal and state levels. Students will integrate ethical, legal, and industry-standard compliance principles into the decision-making process in health care management.

3 credits

Prerequisite: None

Co-requisite: None

#### **HEMA 6030 Health Information Management**

In this course, students will review the processes related to health information management. Likewise, they will evaluate how the acquisition, analysis, and security of digital and traditional medical information is vital to the quality of patient healthcare. Furthermore, students will examine how data relates to an individual's electronic health record, including symptoms, diagnoses, procedures, and results, as well as to the identification of secondary sources of health data and the interpretation of statistical data and classification systems.

3 credits

Prerequisite: None

Co-requisite: None

#### HEMA 6040 Project Management in Health Care Organizations

In this course, students will analyze the life cycle of a project and the theoretical basis of project management methodologies applicable to the health industry. They will establish the scope of a project manager's functions according to the activities needed for implementing or restructuring operations in medical facilities. Students will also justify the priorities for implementing projects and making decisions according to objective and measurable parameters. Likewise, they will organize the integration of project management methodologies for the successful execution of the entity's initiatives, based on the health and well-being of patients.

3 credits

Prerequisite: None

Co-requisite: None

#### HURE 6000 Human Resources Role in Organizations

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.

3 credits

Prerequisite: None

Co-requisite: None

#### HURE 6015 Total Compensation Strategy

In this course, students will demonstrate skills in designing and implementing total compensation strategies aligned with the organizational strategy. They will analyze existing compensation structures to recommend adjustments that respond to internal company needs or external market factors. They will create a total compensation strategy that attracts and retains the best talent.

3 credits

Prerequisites: HURE 6000

Co-requisite: None

#### HURE 6025 Employment Law

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. The students will evaluate the relevance of labor laws in the development of the human resources strategic plan.

3 credits

Prerequisites: HURE 6000

Co-requisite: None

#### HURE 6035 People Analytics

In this course, students will examine the principles of collecting, analyzing, and interpreting data fundamental to human resources analytics. They will analyze the results of key performance indicators (KPIs) such as employee absenteeism and turnover, among others, to make strategic decisions about human resources management. Students will create action plans based on the interpretation of the results obtained to improve the processes related to human talent management in companies.

3 credits

Prerequisites: HURE 6000

Co-requisite: None

**HURE 6045 Strategic Human Resources Management (Capstone)**

In this course, students will examine the alignment of the business strategy with the human capital strategy within a company. They will analyze the role of managers in developing and implementing effective, efficient, and ethical human resources practices that support the strategic objectives of companies. Students will determine how human resources decisions contribute to organizational effectiveness and the competitive advantage of a company.

3 credits

Prerequisites: HURE 6000

Co-requisite: None

**INTE 1100L Open-Source Operating Systems and Laboratory**

In this course, students will distinguish the fundamentals of open-source operating systems' functioning. They will also integrate the theoretical and practical aspects of Linux operating systems. In addition, students will demonstrate their skills in the use, management, and configuration of open-source operating systems.

3 credits

Prerequisite: None Corequisite: None

**INTE 1200L - Fundamentals of Operating Systems and Laboratory**

In this course, students will examine the processes for configuring, administering, and installing operating systems, as well as the fundamentals for operating systems certification. They will apply procedures for creating operating system images as well as network hardware and software configurations. Students will also perform system information backups and restoration. In addition, they will employ techniques for installing and configuring operating systems.

3 credits Prerequisite: None Corequisite: None

**INTE 2440L Network Fundamentals and Laboratory**

In this course, students will recognize the basic concepts of telecommunication networks. Likewise, they will identify the essential components of a network including devices such as routers, switches, hubs, and wireless access points. Students will also distinguish the characteristics and functions of each network component, and their use in establishing and maintaining connectivity. Similarly, they will analyze the most utilized reference models in computer networks, their importance today, and the benefits that they offer in terms of communication and collaboration.

3 credits

Prerequisites: INTE 1100L Corequisite: None

**INTE 2470L User Support Technician and Laboratory**

In this course, students will learn about the user support process as well as the techniques and skills necessary for providing support and assistance to technology users in various environments. Likewise, they will execute techniques and strategies for identifying and resolving common hardware, software, and network issues. In addition, students will develop communication and interpersonal skills to handle difficult situations and manage user expectations, necessary for their entry into and performance in the technical support services job field.

3 credits

Prerequisite: COMP 1000L Corequisite: None

### **ITSA 2000L Introduction to Back-End Development and Laboratory**

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.

3 credits

Prerequisite: WADE 2050L

### **INTE 4000L Information Technology Seminar and Laboratory**

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.

4 credits

Prerequisites: All concentration courses

Corequisite: None

### **KEBO 1205 KEYBOARDING 3 CREDITS 60 HOURS**

This course includes the development of basic and professional techniques, as well as basic skills (speed, accuracy, and collation) in the use of the numeric and alphabetic keyboard of the computer touch and draft editing. Letter, memo, tab, table, and report formats are also added. The methods to be used are visual presentations, demonstration methods and direct dictation. To demonstrate what has been learned, the following are used: performance tests, portfolio, rubrics, and document acceptability criteria. Requires use of the lab and word processing application.

### **MANA 1207 MANAGEMENT PRINCIPLES 3 CREDITS 45 HOURS**

This course offers students the basic knowledge of management; the basic managerial concepts, such as: planning, organizing, directing, and controlling, as the fundamental basis of management. Interpersonal relationships, leadership, motivation, and teamwork are considered in the managerial decision-making process within an ethical and moral framework. It will be carried out through lectures, case studies, group studies, and exams.

### **MANA 2020 CLAIMS PRACTICE OF 3 CREDIT 45 HOURS CIVIL LIABILITY**

The purpose of this course is to study the practices applicable to the handling of commercial, personal and liability insurance claims. It covers the claims adjustment process, from case assignment to final disposition. It includes the analysis of the insurance contract, sample letters and reports, suggested guides on declarations, check sheets, covers, keys and legal concepts. It will be carried out through case studies, oral presentations, exams, short tests, and research work.

### **MANA 2303 LEGAL ASPECTS AND ETHICS 3 CREDITS 45 HOURS**

The purpose of this course is to present the legal aspects of business, ethics, and the local and international legal environment. It emphasizes the laws applicable to electronic commerce, local and international social and ethical issues that are important for the comprehensive study of laws and business ethics. Student knowledge is determined through oral presentations, case analysis, and research.

**MANA 2403 HUMAN RESOURCES MANAGEMENT 3 CREDITS 45 HOURS**

*Pre-requirement: MANA 1207*

The purpose of this course is to discuss the functions of human resource management, such as: planning, the recruiting process, performance measurement, occupational health and safety, and compensation. In addition, the laws applicable to labor relations are presented and emphasis is placed on the optimal design of compensation plans that promote motivation, organizational commitment, and the achievement of organizational goals. Determines student knowledge through reading, case studies, reports, and tests.

**MANA 2413 INTEGRATED SYSTEMS MANAGEMENT 3 CREDITS 45 HOURS**

*Pre-requirement: COMP 1205*

The purpose of this course is to develop and apply the skills acquired to achieve the integration of computer systems and use them as a management tool. Throughout the course, the different commercial situations are analyzed and the technological alternatives for them will be discussed. Student knowledge is determined through reading, case studies, reports, and tests. Requires laboratory use.

**MANA 3002 EFFECTIVE SUPERVISION 3 CREDITS 45 HOURS**

*Pre-requirement: MANA 1207*

The purpose of this course is to impart the knowledge and skills necessary for effective supervision that creates an optimal work environment. The topics covered are the role of the supervisor, productivity, decision-making, leadership, performance, and conflict management. Student knowledge is determined through situation analysis, case studies, articles, oral reports, written reports, interviews, and research papers.

**MANA 3401 CREATIVE AND INNOVATIVE 3CREDITS 45HOURS MANAGEMENT**

*Pre-requirement: MANA 1207*

The purpose of this course is to study the various components of individual creativity, the characteristics of creative groups, and the various ways to enhance creativity in the company. The key factors to develop, manage and sustain creativity and innovation in organizations are analyzed. Creative thinking and problem solving within the company are promoted in a theoretical and practical way. Student knowledge is determined through research papers, case studies, exams, oral reports, and written reports.

**MANA 4000 EFFECTIVE COMMUNICATION 3 CREDITS 45 HOURS FOR MANAGERS**

*Pre-requirement: MANA 1207*

The purpose of this course is to present the skills, processes, and resources to achieve effective and efficient managerial communication. The course analyzes the communication process, listening, interpersonal communication skills, group communication, professional communication, intercultural communication, communication technology, and how to organize and conduct an interview. Student knowledge is determined through cases, practical activities, projects, oral reports, and written reports.

**MANA 4004 OPERATIONS MANAGEMENT 3 CREDITS 45 HOURS**

*Pre-requirements: MANA 1207, STAT 3103*

The purpose of this course is to introduce the student to the different techniques for analyzing situations that occur in the company. The different techniques of making production forecasts such as: GANTT graphs, analysis of a PERT network, profitability analysis and online programming are worked on. The student's knowledge is determined through case studies, real situations and their analysis, research work, exams, and written reports.

MANA 4005 CUSTOMER SERVICE      3 CREDITS      45 HOURS

*Pre-requirements: MARK 1301*

The purpose of this course is to identify the client's needs in both products and services. The course discusses strategies to generate satisfied customers. Advertising strategies, promotional tools, target markets, market segments and their niches are evaluated. Various strategies are integrated and related to meeting customer needs. Student knowledge is determined through oral, written, and group or individual reports.

MANA 4006 STRATEGIC PLANNING      3 CREDITS      45 HOURS

*Pre-requirements: MANA 1207, MATH 1206*

The purpose of this course is to identify areas of opportunity in the company and appropriate them through a strategic plan. The environment, both internal and external, in which the organization operates, develops, and grows is studied. It studies the formulation of long-term strategies, strategic implementation and the evaluation and control processes. Student knowledge is determined through case analysis, with a final evaluation of a complete strategic plan.

MANA 4009 ADVANCED MANAGEMENT      3 CREDITS      45 HOURS

*Pre-requirements: MANA 1207, MANA 4006, MARK 1301*

The purpose of this course is to analyze the distinctive characteristics in the changes of management strategies in companies and competitive markets directed towards globalization and Internet technology. Emphasis is given to electronic commerce, applications, as well as the synthesis, evaluation, and formulation of strategies to be used in the organization and current market environments. Student knowledge is determined through case analysis, oral reports, written reports, research papers, and exams.

MANA 4011 ORGANIZATIONAL BEHAVIOR      3 CREDITS      45 HOURS

*Pre-requirement: MANA 1207*

The purpose of this course is to acquire the knowledge and skills to work with individual and group behavior generated in organizational settings. Emphasis is placed on the development of qualities and competencies to handle situations related to the workplace, such as: stress, aggression, motivation, values, communication, teamwork, conflict management, change and decision making. Student knowledge is determined through reading, films, comparative analysis, oral reports, written reports, and tests.

MANA 4012 NEGOTIATION AND MEDIATION AT      3 CREDIT      45 HOURS WORK

*Pre-requirements: MANA 1207, MANA 2303*

The purpose of this course is to train the students through the study and analysis of negotiation and mediation strategies to manage conflicts in the organizational environment. The course discusses alternative methods to resolve disputes, including mediation, negotiation, and conciliation techniques. Likewise, the topics of communication, the management of emotions and the ethical aspects for the resolution of conflicts are discussed. Student knowledge is determined through situation analysis, case analysis, oral reports, written reports, and exams.

MANA 4013 MANAGEMENT RESEARCH      3 CREDITS      45 HOURS

*Pre-requirements: MANA 1207, MATH 1206, STAT 3103*

Management research is a crucial element in organizations. The purpose of this course is to educate people about information search, synthesis and decision making. It introduces the student to the techniques of investigation, analysis of situations and decision making. The student's knowledge is determined by using different techniques of investigation and evaluation of situations, case studies, research papers, exams, and written reports.

**MANA 4014 SEMINAR AND MANAGEMENT 3 CREDITS 105 HOURS INTERNSHIP**

***Pre-requirements: MANA 1207, MANA 4004, MATH 1206, STAT 3103***

The purpose of this course is to expose the student to the execution of tasks related to the profession. The course consists of 90 hours of supervised internship, as well as a 15-hour contact seminar where planning, organization, direction, and control are discussed. The result of this experience will be summarized in a portfolio that the student will carry out during the Internship.

**MARK 1301 MARKETING PRINCIPLES 3 CREDITS 45 HOURS**

The purpose of this course is to expose the student to Marketing processes. Topics such as the market mix, the positioning of products in the market, their cycle of life, its pricing, marketing channels and their promotion. The target market, market segment, and niches are also discussed. The student's knowledge is determined through case studies, research papers, the application of the 4Ps and how to position a product or service through written and oral work.

**MANA 6000 Management and Strategic Leadership**

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.

3 credits

Prerequisite: None

Corequisite: None

**MANA 6010 Ethical Leadership**

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.

3 credits

Prerequisite: None

Corequisite: None

**MANA 6020 Global Strategic Management**

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.

3 credits

Prerequisite: None

Corequisite: None

**MANA 6030 Human Capital Management**

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.

3 credits

Prerequisite: None

Corequisite: None

#### MBA 5000 Organizational Behavior

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.

3 credits

Prerequisite: None

Corequisite: None

#### MBA 5010 Marketing Management

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.

3 credits

Prerequisite: None

Corequisite: None

#### MBA 5020 Managerial Economics

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.

3 credits

Prerequisite: None

Corequisite: None

#### MBA 5040 Managerial Accounting

In this course, students will analyze accounting as a tool for obtaining precise and relevant information. They will employ costing systems for selecting information and formulating effective strategies for problem solving. Furthermore, students will design profit and productivity maximization strategies to support decision-making.

3 credits

Prerequisite: None

Corequisite: None

#### MBA 5050 Managerial Finance

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.

3 credits

Prerequisite: None

Corequisite: None

**MBA 5240 Project Management and Administration**

In this course, students will analyze the fundamental concepts of project management and how they impact organizational strategy. They will examine the processes in the project lifecycle for successful risk management, as well as the reporting of outcomes in terms of scope, time, and costs. In addition, students will integrate communication processes into the management and closure of projects.

3 credits

Prerequisite: None

Corequisite: None

**MBA 6000 Business Administration Integrating Seminar**

In this course, students will demonstrate a company's competitive competencies and strategies in order to obtain annual operating profits, a competitive contribution margin, and a growth in share value that solidifies its position in the market through the role of a senior management executive. They will develop effective strategies for managing inventories based on the metrics used by a company for promoting market success and avoiding incurring loans for operational losses. Students will prepare detailed written and oral reports to communicate their analysis and justify their decisions to a company's stakeholders. This course utilizes a simulator to complete practical exercises.

3 credits

Prerequisites: MBA 5050

Corequisite: None

**NURS 1604 NURSING PROCESS 3 CREDITS 45 HOURS**

The course introduces the student to the nursing profession. It imparts knowledge on concepts such as: nursing, legal ethical aspects, communication process, information management technology and the teaching-learning process. Emphasizes the application of the different stages of the nursing process, as a work tool, when planning quality care for the client in any health setting. The student will make oral presentations, written assignments, and simulations where the nursing process and the documentation process are applied through the electronic file.

**NURS 1609 MATERNAL -CHILD NURSING 5 CREDITS 135 HOURS PROCESS**

*Pre-requirements: BIOL 1603, NURS 1612, NURS 2613*

In this course the student will apply nursing techniques, acquired to provide care to women during the pre-conceptional stage, pregnancy, childbirth, or cesarean section, postpartum in addition to the immediate care of the newborn. You will use the nursing process and information management technology to guide your actions with the pregnant woman and her family. The process of pregnancy, childbirth and the puerperium of women is discussed, in addition to the health care of the healthy newborn and care. They will make presentations and simulated nursing interventions offering care to the mother and the newborn. It requires clinical experience in various settings.

**NURS 1610 PRINCIPLES OF PHARMACOLOGY 4 CREDITS 90 HOURS**

Introduces students to the field of pharmacology and its relationship to customer care. It includes the study of drugs, their action, side effects, and situations and practices. It focuses on the role and responsibility of nursing professionals in the management and administration of medications, use, adult and pediatric doses, and nomenclatures of various agents. The student will demonstrate the dosage, administration, and nursing skills required when preparing medications, using simulation and information management technology. Requires use of the nursing laboratory.

**NURS 1611 FUNDAMENTALS OF NURSING 6 CREDITS 135 HOURS**

*Pre-requirements: BIOL 1601, NURS 1604*

Course designed in a core way, provides the student with principles and basic skills for managing the client framed in health promotion, disease prevention, treatment, rehabilitation, and support in case of death. Health knowledge is provided based on concepts: asepsis, safety, skin integrity, sexuality, spirituality, death and grief, and information management technology, among others. Different evaluation methods will be used such as: course portfolio, presentations and simulated nursing interventions in care directed to a patient or community. It requires the use of the nursing laboratory and could use other scenarios.

**NURS 1612 PATHOPHYSIOLOGY OF THE HUMAN BODY 3 CREDITS 60 HOURS**

*Pre-requirements: BIOL 1601, BIOL 1602, NURS 1611*

This course presents the physiological processes of the common and recurrent alterations of the human being in its growth and development. The student analyzes anthropological factors of the various pathological processes, as well as the risk factors of the stressful, nutritional, and genetic environment that cause disease. Diagnostic tests, clinical manifestations and treatment methods used in various pathological processes are discussed, in addition to the use of technology in information management. Knowledge will be applied through course portfolio, presentations, and simulated nursing interventions in patient-directed care. It requires the use of the nursing laboratory and could use other scenarios.

**NURS 2501 INTRODUCTION TO THE NURSING PROFESSION 3 CREDITS 45 HOURS**

In this course the student will explore the basic principles and concepts of the nursing profession. You will analyze the historical evolution and contribution of several prominent theorists in the profession. It will examine the different dimensions and roles of nursing care today, taking into consideration the legal aspects that govern the profession. Likewise, they will analyze the concepts of health promotion and maintenance and the importance of the nursing role in health information systems. This course has an additional 90 hours of outside work. The student will carry out the activities assigned in the External Work Component.

**NURS 2531 NURSING ROLE IN HISTORY AND PHYSICAL EXAM 3 CREDITS 45 HOURS**

In this course, the student will develop the fundamental skills to carry out a health history and a cerebrospinal fluid physical examination in healthy or sick adult individuals, integrating an aspect of cultural diversity. It will identify the frequent systematic alterations of health and local disorders of the individual to carry out a nursing estimate, differentiating between the subjective and objective data offered by the client against the findings obtained during the physical examination. This course has an additional 90 hours of outside work. The student will carry out the activities assigned in the External Work Component.

**NURS 2541 PHARMACOLOGY 3 CREDITS 45 HOURS**

*Pre-requirement: NURS 2501, NURS 2561, NURS 2571*

In this course, the student will analyze the basic principles of pharmacology and the ethical-legal aspects in the safe administration of drugs in the Nursing Role professionals. You will examine the historical background, the different classifications and categories of drugs, and the mechanisms of action in the human body through the different systems. Likewise, it will integrate the nursing process for a safe administration of medications. This course has an additional 90 hours of outside work. The student will carry out the activities assigned in the External Work Component.

NURS 2551 NURSING ROLE IN DRUG LABORATORY 2 CREDIT 60 HOURS ADMINISTRATION:

*Pre-requirement: MATH 2002, NURS 2501, NURS 2561, NURS 2571*

In this course, the student will be able to develop the necessary skills for the execution of the procedures required in the calculation and dosage of medications through the different routes of administration. Ethical and legal aspects in the safe administration of medicines and different medical prescriptions are discussed. The metric, pharmaceutical and home systems are integrated for the conversion and calculation of drugs. Apply the nursing process in the safe administration of medications. This course has an additional 120 hours of outside work. The student will carry out the activities assigned in the External Work Component.

NURS 2561 FUNDAMENTALS OF THE NURSING 4 CREDIT 75 HOURS PROFESSION

*Pre-requirement: BIOL 1601, NURS 2501*

*Concurrent: NURS 2571*

In this course the student will examine the Nursing Role as a profession and practice. Fundamental nursing concepts such as holistic health, wellness, direct care, critical thinking, nursing process, communication, safety, infection control, and basic care for nursing practice are introduced. It will analyze the nursing process as a strategy for solving the client's health problems. It will value the importance of therapeutic communication in the identification of needs when interacting with the client, family, significant others, and members of the health team. This course has an additional 150 hours of outside work. The student will carry out the activities assigned in the External Work Component.

NURS 2571 FUNDAMENTALS OF THE NURSING 2 CREDITS 90 HOUR PROFESSION: PRACTICE

*Pre-requirement: BIOL 1601, NURS 2501*

*Concurrent: NURS 2561*

This course introduces the student to the basic knowledge and skills of the nursing role in the dependent, independent, and interdependent functions of the practice. The student will apply the nursing process in solving problems related to the basic needs of the client and their safety. It will integrate therapeutic communication skills to establish relationships with clients, families, significant others, and members of the health team. Perform basic direct care skills to assist the client and family in promoting, restoring, and maintaining health. You will use critical thinking skills when performing critical nursing interventions in client and family care. The course consists of 30 hours of skills laboratory and 45 hours of clinical practice. This course has an additional 30 hours of external work corresponding to the laboratory component. The student will carry out the activities assigned in the External Work Component.

NURS 2612 NURSING PROCESS IN CHILDHOOD 5 CREDITS 135 HOURS AND ADOLESCENCE

*Pre-requirements: BIOL 1603, NURS 1612, NURS 2613*

In this course, the student will use the knowledge acquired about the nursing process to intervene with the child and adolescent with common and recurrent conditions in these stages of growth and development, using technology in information management. Diseases that affect the health of the pediatric population and measures for promotion, disease prevention and restoration of health are discussed. Simulated nursing presentations and interventions will be made. It requires clinical experience in various settings.

NURS 2613 NURSING PROCESS OF THE MENTAL 5 CREDITS 135 HOURS AND EMOTIONAL HEALTH OF THE HUMAN BEING

*Pre-requirements: NURS 1610, NURS 1611*

This course provides the student with knowledge about the historical, ethical-legal, cultural, and spiritual background of the field of mental health, biopsychosocial, spiritual, and family factors. The nursing process is used integrating different theories to explain personality and behavior. Prevention levels are applied

to restore and maintain mental health in individuals, groups, and families. The student makes oral presentations integrating knowledge and simulation tools in their interventions using technology in information management. It requires clinical experience in various settings. This course is offered face-to-face and not face-to-face.

**NURS 2614 NURSING PROCESS OF ADULTS 5 CREDITS 135 HOURS AND GERIATRICS I**

*Pre-requirements: NURS 1609, NURS 2612*

In this course the student acquires knowledge about pathological problems that affect adults and the elderly. They will use nursing skills to assist patients with altered basic needs that require medical or surgical care using information management technology. Assistance to the individual is focused on the pre, intra and post-operative phase, with immunological, cardiovascular, respiratory, hematological, endocrine alterations and in the balance of fluids and electrolytes. The student will demonstrate with oral, written and interventions with the simulation the techniques of assistance with the patient. It requires clinical experience in various settings.

**NURS 2615 NURSING PROCESS OF ADULTS 5 CREDITS 135 HOURS AND GERIATRIC II**

*Pre-requirement: NURS 2614*

In this course the student continues to acquire knowledge about the pathological problems of adults and the elderly. It focuses on the care of the individual with neoplasia, gastrointestinal, neurological, integumentary, urinary, reproductive, musculoskeletal disorders, in addition to diseases of the eyes, ears, nose and throat. The student will use the nursing process using information management technology to guide assistance to the individual with altered human needs. The student will demonstrate with oral and written works and interventions simulating the assistance techniques in the patient. It requires clinical experience in various settings.

**NURS 2616 INTEGRATING SEMINAR 3 CREDITS 45 HOURS**

*Pre-requisite: NURS 2614*

This course helps the student to transition into their role as a professional nurse in the world of work. Knowledge learned from previous courses is integrated so that they can prepare for the bar exam. They acquire the necessary knowledge and skills through simulations of revalidation exam, job interview, resume preparation and search for opportunities to continue university studies. In addition, current changes in the health of the people and in the health systems available for community service and existing and important controversies are discussed. Capstone course to enroll in the last term.

**NURS 3101 NURSING ROLE IN MENTAL HEALTH 4 CREDITS 75 HOURS AND PSYCHIATRY**

*Pre-requirement: NURS 2501, NURS 2531, NURS 2541, NURS 2551, NURS 2561, NURS 2571*

*Concurrent: NURS 3111*

In this course the student will examine the historical evolution, theoretical models and concepts that influence the professional practice of psychiatric nursing. They will analyze the different mental health disorders, risk factors, needs and their treatments. Will determine the changes in behavior and personality of the individual during the different stages of the life cycle. It will integrate the principles of therapeutic communication, legal and spiritual aspects, and the findings of evidence-based practice. This course requires the student to complete an additional 150 hours of outside work. This course is offered face-to-face and not face-to-face.

**NURS 3111 NURSING ROLE IN MENTAL HEALTH 2 CREDITS 90 HOURS AND PSYCHIATRY: PRACTICE**

*Pre-requirement: NURS 2501, NURS 2531, NURS 2541, NURS 2551, NURS 2561, NURS 2571*

*Concurrent: NURS 3101*

In this course the student will demonstrate cognitive, affective, and psychomotor skills and attitudes that allow them to offer direct nursing care safely and effectively to individuals, families, and groups at risk of developing mental health disorders and will examine risk factors, needs and treatments by intervening with the population suffering from mental health disorders. In addition, it will integrate the nursing process, therapeutic communication skills, ethical, cultural and leadership aspects when offering nursing care to the population suffering from mental health disorders in various health settings. This course consists of 90 hours of practice.

NURS 3120      NURSING CARE ROLE    5 CREDITS      90 HOURS OF ADULT AND OLD I

*Pre-requirement: NURS 2501, NURS 2531, NURS 2541, NURS 2551, NURS 2561, NURS 2571*

*Concurrent: NURS 3131*

In this course, the student focuses on the nursing care and collaborative management of adults and elderly individuals with health problems which prevent their total independence in the management and fulfillment of their basic needs. Emphasis is placed on caring for the client experiencing surgery, cancer, HIV / AIDS, fluid and electrolyte imbalance, metabolic imbalance, and Ph; cardiovascular, respiratory, and endocrine problems. This course has an additional 180 hours of outside work. The student will carry out special work on a topic related to the course.

NURS 3131      NURSING CARE ROLE IN ADULTS2 CREDITS      90 HOURS AND THE ELDERLY I: PRACTICE

*Pre-requirement: NURS 2501, NURS 2531, NURS 2541, NURS 2551, NURS 2561, NURS 2571*

*Concurrent: NURS 3120*

In this course, the student develops and applies the skills and competencies necessary to carry out a holistic and effective nursing care aimed at adult and elderly clients with health disorders. Emphasis is placed on the application and evaluation of skills related to metabolic and endocrine, cardio-respiratory health problems and disorders related to the perioperative process. This course consists of 90 hours of practice.

NURS 3141      NURSING CARE ROLE IN ADULTS5 CREDITS      90 HOURS AND THE ELDERLY II

*Pre-requirement: NURS 3120, NURS 3131*

*Concurrent: NURS 3150*

In this course, the student focuses on the nursing care and collaborative management of adults and elderly individuals with health problems which prevent their total independence in the management and fulfillment of their basic needs. Emphasis is placed on the care of the client who experiences integumentary alterations and burns, shock and trauma, musculoskeletal, renal, gastrointestinal, neurological, sensory-perceptual, and reproductive problems. This course requires the student to complete an additional 180 hours of outside work.

NURS 3150      NURSING CARE ROLE IN ADULTS2 CREDITS      90 HOURS AND THE ELDERLY II: PRACTICE

*Pre-requirement: NURS 3120, NURS 3131*

*Concurrent: NURS 3141*

In this course, the student develops and applies the skills and competencies necessary to carry out a holistic and effective nursing care aimed at adult and elderly clients with health disorders. Emphasis is placed on the application and evaluation of skills related to neurological, hematological, gastrointestinal, skeletal muscle and integumentary health problems, in addition to the management of the client in shock and trauma. The course consists of 90 hours of clinical practice.

**NURS 3160 NURSING CARE ROLE 4 CREDITS 75 HOURS IN MATERNITY CARE**

*Pre-requirement: NURS 2501, NURS 2531, NURS 2541, NURS 2551, NURS 2561, NURS 2571*

*Concurrent: NURS 3170*

The purpose of this course is to analyze the characteristics, needs and problems of the family during the cycle of pregnancy, birth, and adaptation to extrauterine life. Emphasis on the factors involved in human sexuality, the male and female reproductive system, and the growth and development process. They will apply the nursing process to the woman and family in each of the stages of the cycle of pregnancy, birth, and adaptation to extrauterine life. This course has an additional 150 hours of outside work.

**NURS 3170 NURSING CARE ROLE 2 CREDITS 90 HOURS IN MATERNITY CARE: PRACTICE**

*Pre-requirement: NURS 2501, NURS 2531, NURS 2541, NURS 2551, NURS 2561, NURS 2571*

*Concurrent: NURS 3160*

In this course the student will assess the Nursing Role in maternity care as a fundamental part of health services for the population of pregnant women and newborns. Demonstrate basic skills and attitudes necessary to provide direct care to pregnant women and infants safely and effectively. It will integrate the nursing process, therapeutic communication skills, cultural aspects and leadership when offering nursing care to the pregnant woman, the newborn and their family in various health settings.

**NURS 3180 NURSING ROLE IN 4 CREDITS 75 HOURS PEDIATRIC CARE**

*Pre-requirement: NURS 2501, NURS 2531, NURS 2541, NURS 2551, NURS 2561, NURS 2571*

*Concurrent: NURS 3190*

In this course the student will analyze the different stages of growth and development of the healthy child and adolescent, with special needs and health disorders. They will argue about the importance of the role of family and culture in child and adolescent care. It will examine the legal ethical aspects and the regulations that govern the practice of nursing to offer safe and effective care to children and adolescents. Integrate the evidence-based nursing process safely and effectively when intervening with children and adolescents with health disorders. This course has an additional 120 hours of outside work. The student will carry out special work on a topic related to the course.

**NURS 3190 NURSING ROLE IN PEDIATRIC CARE: 2 CREDITS 90 HOURS: PRACTICE**

*Pre-requirement: NURS 2501, NURS 2531, NURS 2541, NURS 2551, NURS 2561, NURS 2571*

*Concurrent: NURS 3180*

In this course the student will demonstrate the skills and attitudes necessary to offer direct care to children and adolescents with health disorders in a safe and effective way. It will integrate the nursing process, therapeutic communication skills, ethical, cultural and leadership aspects when offering nursing care to children, adolescents, and their families in various health settings. You will apply the nursing process in the promotion, restoration and maintenance of health and disease prevention according to the stage of growth and development. This course consists of 90 hours of practice.

**NURS 3503 NURSING THEORIES 3 CREDITS 45 HOURS IN HEALTH PROMOTION**

This course introduces the students to theories in nursing. The evolution of theories is discussed, emphasizing assumptions, sources, and logical reasoning; in addition to its development and organization process to predict, establish and examine the phenomena that make up the practice of nursing. The main exponents of nursing theories are known, including their models and concepts. An educational talk will be applied with theorizing concepts, to improve customer care.

**NURS 3504 ESTIMATED HEALTH 4 CREDITS 90 HOURS FOR PREVENTION**

This course initiates the student in the development of skills of interviewing clients, taking a nursing

history and physical examination, as well as in the theoretical knowledge to interpret the clinical situations and make decisions about the care and prevention of diseases. Factors that promote man's self-realization from infancy to aging are analyzed to develop nursing skills in health promotion. A health history and physical estimate will be made.

**NURS 3505 PRINCIPLES OF INVESTIGATION 3 CREDITS 60 HOURS IN HEALTH AND NURSING**

*Pre-requirements: NURS 3503, NURS 3504, STAT 3103*

This course offers the student the opportunity to assess the changes in health practice that arise from research, introducing the evidence base into practice. Different statistical designs and analysis that the researcher can use when conducting a study are described. Nursing research that promotes knowledge and practice of the discipline will be analyzed by carrying out a research project at the end of the course, focusing on the ethical considerations of the patient and the researcher.

**NURS 4010 NURSING ROLE IN HEALTH 3 CREDITS 45 HOURS INFORMATION SYSTEMS**

In this course, the student will examine the Nursing Role in the integration of competences and skills of health information systems in the face of the adoption of new technologies. Assess the main issues related to information in nursing, ethical and legal controversies, the quality, and safety of the patient. Also, they will analyze the impact of technology on the use of the electronic medical record and its integration into health scenarios. Likewise, they will argue about the evolution of technology and the impact of information technology in the future of nursing. This course has an additional 90 hours of outside work. The student will carry out the activities assigned in the External Work Component.

**NURS 4030 NURSING ROLE IN NUTRITION 3 CREDITS 45 HOURS**

In this course the student will be able to analyze the role of the nursing professional in the estimation, analysis, and interventions in the care of nutritional needs in all stages of the life cycle. Emphasis is placed on the discussion of essential nutrients and the importance of the food pyramid for the maintenance of nutritional health. Likewise, they will analyze the influence of food on weight control, the most common health disorders, and pathologies. This course has an additional 90 hours of outside work.

**NURS 4040 CULTURAL DIVERSITY IN THE 3 CREDITS 45 HOURS NURSING PROFESSION**

In this course the student will be able to examine the influence of cultural diversity in nursing practice with the client, individuals, populations and communities. You will analyze the impact of cultural diversity, beliefs, values and their influence on health care and nursing practice. You will explore your own cultural beliefs related to health care, client behaviors, cultural perspectives, and cross-cultural communication barriers. This course requires the student to complete an additional 90 hours of outside work.

**NURS 4050 NURSING ROLE IN PRACTICE 3 CREDITS 45 HOURS BASED ON EVIDENCE: INVESTIGATION PROCESS**

*Pre-requirement: STAT 3103*

In this course, students will be able to assess the historical evolution of evidence-based research and practice as a role in the nursing profession. Analyze the phases of the research process and the ethical-legal aspects to use the research findings in clinical practice. They will discuss the characteristics of quantitative and qualitative research and analyze the results of research articles and their impact on the nursing profession. This course has an additional 90 hours of outside work. The student will carry out the activities assigned in the External Work Component.

**NURS 4060 NURSING CARE ROLE IN FAMILY 4 CREDITS 60 HOURS AND COMMUNITY**

*Pre-requirement: NURS 4010, NURS 4030, NURS 4090*

*Concurrent: NURS 4070*

The student will apply theoretical and empirical knowledge in the use of the nursing process in populations and community settings to promote, maintain and restore health. The diverse roles and settings of the community and public health nursing professional are examined in the evaluation, applying research skills, effective communication, and meeting the health needs of populations and communities. This course has an additional 120 hours of outside work.

NURS 4070      NURSING CARE ROLE IN FAMILY 2 CREDITS      90 HOURS AND COMMUNITY: PRACTICE

*Pre-requirement: NURS 4010, NURS 4030, NURS 4090*

*Concurrent: NURS 4060*

The student will exercise theoretical and empirical knowledge in the development of educational care plans and actions to promote, maintain and restore health in populations and communities. It will apply the roles of the community and public health nursing professionals in the different assessment scenarios, applying research skills, effective communication and meeting the health needs of populations and communities. This course consists of 90 hours of practice.

NURS 4080      NURSING SEMINAR      3 CREDITS      45 HOURS

*Pre-requirement: NURS 3140, NURS 3150, NURS 3160, NURS 3170, NURS 3180, NURS 3190, NURS 4010, NURS 4030, NURS 4040, NURS 4050, NURS 4090*

This course provides the student with the strategies and content introductory to the nursing exam Puerto Rico. The course is designed using the different categories needs of the client: safe and effective care environment, promotion, and maintenance of health, psychosocial integrity, and physiological integrity to offer nursing care to diverse populations and health settings. Likewise, the student will apply prior scientific knowledge of the different nursing roles with a focus on the most common health disorders and disorders in the various specialty areas of the profession: medicine and surgery, mental health and psychiatry, maternity, pediatrics, research, community, and leadership in nursing. This course has an additional 90 hours of outside work.

NURS 4090      NURSING ROLE IN      3 CREDITS      45 HOURS ADMINISTRATION AND LEADERSHIP: SEMINAR

In this course the student will be able to analyze the basic foundations of leadership and management in health services. Emphasis is placed on the application of advanced communication skills in collaboration with the multidisciplinary team. The different types of leadership, the characteristics of a leader and organizational changes to perform better teamwork will be discussed. They will also evaluate leadership theories and models to promote safe and effective work environments. Through the seminar they will be able to apply the steps of the problem-solving method to deal with complex issues within health organizations. This course has an additional 90 hours of outside work. The student will carry out special work on a topic related to the course.

NURS 4100      PRACTICUM: ADMINISTRATION AND      3 CREDITS      135 HOURS NURSING LEADERSHIP –CLINICAL EXPERIENCE

*Pre-requirement: NURS 3140, NURS 3150, NURS 3160, NURS 3170, NURS 3180, NURS 3190, NURS 4010, NURS 4050, NURS 4090, NURS 4090*

*Concurrent: NURS 4080*

In the Practicum clinical experience course, the practitioner will have the opportunity to apply and develop the administrative, leadership and supervisory skills discussed in the theoretical course. The student will use his leadership alternately with other students to coordinate and monitor student performance in practice. In addition, he will be involved in administrative matters related to nursing

services and will apply a method of problem solving and research to optimize the quality of nursing services. At the same time, it will apply competences in pharmacology and will offer the care to the assigned clients; in addition, it will fulfill the functions of the clinical unit and the tasks for academic purposes. In the same way, he will assume ethical- legal responsibility and humanistic and Christian commitment during his performance. This practice will be offered concurrent with the theoretical course.

**NURS 4113 NURSING PROCESS 4 CREDITS 90 HOURS WITH FAMILIES AND COMMUNITY**

*Pre-requirements: NURS 3503, NURS 3504, NURS 3505, STAT 3103*

This course provides the student with the opportunity to examine environmental stressors that alter the well-being of family and groups in the community. The student is directed to visualize the family and the community as responsible agents in their health practices. Using research knowledge is deepened, and principles applied for promotion, restoration of health, and prevention of disease in individuals, families, and community groups. An estimate of the needs of a population is made.

**NURS 4114 THE THEORY AND PRACTICE IN 5 CREDITS**

**135 HOURS ADMINISTRATION OF NURSING SERVICES**

*Pre-requirements: NURS 3503, NURS 3504, NURS 3505, NURS 4113, STAT 3103*

This course provides the opportunity to synthesize the knowledge acquired to promote the well-being of groups of individuals in various health settings. The role of the leader is valued and exhibited in promoting changes that improve nursing practice using the results of scientific research. Different leadership roles, interpersonal relationship problems, basic knowledge of the personnel evaluation process, and patterns of task assignment in the hospital environment are analyzed. Analysis of situations is carried out to apply the role of leader. This "Capstone" course is offered face-to-face and not face-to-face. It requires clinical practice in various settings.

#### **NURS 5111 Advanced Nursing Research Proposal**

In this course, students will assess the importance of research and the integration of the scientific method into nursing practice. They will incorporate advanced concepts of quantitative or qualitative research in problem-solving. Additionally, they will design a project based on an identified need in nursing practice.

3 credits

Prerequisites: STAT 5210

Corequisite: None

#### **NURS 5112 Advanced Nursing Research Project**

In this course, students will develop a research project based on literature review or meta-analysis of a problem identified in the nursing field. They will integrate ethical principles of the profession when addressing issues in nursing practice. Furthermore, they will value advanced nursing knowledge and evidence-based practice concepts.

3 credits

Prerequisites: NURS 5111

Corequisite: None

#### **NURS 5200 Advanced Pathophysiology**

In this course, students will analyze high-incidence pathological processes throughout their lifespan. They will interpret regulatory and compensatory mechanisms related to the most prevalent diseases. Additionally, they will establish the relationship between normal physiology and specific alterations caused by injuries or diseases through the application of critical thinking.

3 credits

Prerequisites: None

Corequisite: None

#### NURS 5210 Advanced Pharmacology

In this course, students will analyze the effects of drugs and the general categories of pharmacological agents by applying advanced pharmacology knowledge. Moreover, they will evaluate drug action principles, pharmacokinetics, and pharmacotherapy in the context of advanced nursing practice. They will integrate research findings, evidence-based practices, and ethical-legal considerations in assessing the most common drug classifications, indications, and expected therapy outcomes.

3 credits

Prerequisites: None

Corequisite: None

#### NURS 5220 Advanced Physical Exam

In this course, students will determine criteria for health assessment and promotion throughout the lifespan in a safe, competent, and comprehensive manner. They will employ advanced diagnostic reasoning, communication, and physical assessment skills to identify changes in acute and chronic health patterns. They will apply processes for detailed information collection, with a systematic approach to health assessment and physical examination, while also differentiating, interpreting, and documenting physical, biological, and psychosocial data throughout the lifespan concerning normal findings and potential alterations.

3 credits

Prerequisites: None

Corequisite: None

#### NURS 6050 Human Resources Development in Nursing Management

In this course, students will develop the skills and knowledge necessary for effective nursing staff management. They will implement planning, recruiting, selection, retention, and formation practices for the personnel they manage. They will also analyze the labor laws regulating the nursing practice and the management of employee relations.

3 credits

Prerequisites: None

Corequisite: None

#### NURS 6100 Advanced Care of Adults and the Elderly I

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.

3 credits

Prerequisites: NURS 5200, NURS 5210, NURS 5220

Corequisite: None

#### NURS 6110 Advanced Care of Adults and the Elderly II

In this course, students will analyze various health problems, trends, and indicators that define health status. They will examine research on health conditions affecting individuals, applying concepts and different theories. Additionally, they will critically evaluate the nursing process by applying knowledge acquired in pathophysiology, pharmacology, and physical assessment to promote and restore health in clinical practice.

3 credits

Prerequisites: NURS 5200, NURS 5210, NURS 5220

Corequisite: None

#### NURS 6120 Advanced Care of Adults and the Elderly III

In this course, students will analyze various health problems, trends, and indicators that define health status. They will examine research on health conditions affecting individuals, applying concepts and different theories. Additionally, they will critically evaluate the nursing process by applying knowledge acquired in pathophysiology, pharmacology, and physical assessment to promote and restore health in clinical practice.

3 credits

Prerequisites: NURS 5200, NURS 5210, NURS 5220

Corequisite: None

#### NURS 6140 Teaching and Learning Strategies in Nursing

In this course, students will design and adapt meaningful lessons for multiple learning environments. They will also examine how to effectively integrate technology tools. They will design lessons that meet the diverse learning needs of students.

3 credits

Prerequisites: None

Corequisite: None

#### NURS 6160 Administrative Processes in Nursing Services

In this course, students will analyze 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, they will apply management and human behavior concepts to promote individual health.

3 credits

Prerequisites: None

Corequisite: None

#### NURS 6170 Teaching Processes in Nursing Education

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.

3 credits

Prerequisites: None

Corequisite: None

#### NURS 6180P Administrative Practice in Nursing Services

In this course, students will apply the knowledge and skills necessary for nursing services management. They will employ the administrative process as a tool for applying concepts of leadership, management, problem-solving methods, decision-making, planning, organization, human resources, direction, control, and professional and social trends in various clinical settings. Additionally, they will develop scientifically based management strategies to address continuous changes in healthcare services with an ethical and compassionate focus.

3 credits

Prerequisites: NURS 6100, NURS 6160

Corequisite: NURS 6010, NURS 6020, NURS 6050

#### **NURS 6190P Educational Practice in Nursing Education**

In this course, students will apply methods, strategies, models, concepts, principles, and assessment techniques in classroom and clinical settings within higher nursing education. They will develop innovative teaching strategies to foster student learning in both the classroom and the laboratory. Furthermore, they will evaluate components of nursing education curricula.

3 credits

Prerequisites: NURS 5112, NURS 6100, NURS 6140

Corequisite: NURS 6110, NURS 6120, NURS 6170

#### **REME 5100 Research Methodology**

In this course, students will examine the research process as a means of finding solutions to business problems. Additionally, they will identify the methods, designs, principles, and instruments used in a research study. They will develop skills for the application of research methodologies through the critical analysis of published research studies.

3 credits

Prerequisite: None

Corequisite: None

#### **STAT 5210 Statistics**

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.

3 credits

Prerequisite: None

Corequisite: None

#### **OPTI 2000 Anatomy and Physiology of the Eye**

In this course, students will examine the structure and functions of the eye and the visual apparatus. They will analyze the shape and spatial arrangement of the cells and tissues of the eyeball and the human visual system through image observation. They will identify the normal structure of the eyeball and the human visual system, as well as related abnormalities.

3 credits

Prerequisite: BIOL 1010 Corequisite: None

#### **OPTI 2010 Principles of Physical Optics**

In this course, students will demonstrate knowledge and practical skills for fitting, handling, and maintaining various types of specialized contact lenses. They will also examine the different types of existing contact lenses. They will utilize advanced techniques for fitting and caring for various types of contact lenses. Moreover, they will employ fitting and observation techniques with specialized instruments.

3 credits

Prerequisite: MATH 1010, OPTI 2000, PHYS 1020

Corequisite: None

### OPTI 2020 Ophthalmic Materials I

In this course, students will identify the materials and characteristics of various types of ophthalmic lenses. They will explain the medical conditions that affect how light rays are focused within the eye. Furthermore, they will evaluate the power and curvature, as well as the prismatic power, of ophthalmic lenses prescribed for optical use.

3 credits

Prerequisite: OPTI 2000, PHYS 1020 Corequisite: OPTI 2020L

### OPTI 2020L Ophthalmic Materials I: Laboratory

In this course, students will apply the fundamental principles of ophthalmic lenses fabrication. They will explain personal protection guidelines and the safety parameters for working in the laboratory. They will employ the skills they have acquired in fabricating ophthalmic lenses.

1 credit

Prerequisite: OPTI 2000, PHYS 1020

Corequisite: OPTI 2020

### OPTI 2030 Contact Lenses

In this course, students will analyze the historical and theoretical foundations of the invention and development of contact lenses. They will examine advanced techniques for fitting, designing, and caring for various types of contact lenses. Moreover, they will apply fitting and observation techniques with specialized instruments.

3 credits

Prerequisite: OPTI 2000, OPTI 2010, OPTI 2020, OPTI 2020L, PHYS 1020

Corequisite: OPTI 2030L

### OPTI 2030L Contact Lenses: Laboratory

In this course, students will demonstrate knowledge and practical skills for fitting, handling, and maintaining various types of specialized contact lenses. They will also examine the different types of existing contact lenses. They will utilize advanced techniques for fitting and caring for various types of contact lenses. Moreover, they will employ fitting and observation techniques with specialized instruments.

2 credits

Prerequisite: OPTI 2000, OPTI 2010, OPTI 2020, OPTI 2020L, PHYS 1020

Corequisite: OPTI 2030

### OPTI 2040 Ophthalmic Materials II

In this course, students will analyze the processes for mounting low and high-power lenses, single vision lenses, multifocal lenses, safety lenses, and specialty lenses. They will employ techniques for inspecting, handling, and identifying various materials used in lens fabrication. They will value the importance of lens position, tilt, and rotation in the frame. They will examine the proper handling and maintenance of equipment, machinery, instruments, and related optical devices.

2 credits

Prerequisite: OPTI 2000, OPTI 2010, OPTI 2020, OPTI 2020L, PHYS 1020

Corequisite: OPTI 2040L

### OPTI 2040L Ophthalmic Materials II: Laboratory

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, optical calculations, frame repair, and the use and

maintenance of ophthalmic equipment. They will evaluate processes to ensure precision, accuracy in following prescription specifications, safety, and careful handling of materials, equipment, instruments, and machinery in the ophthalmic laboratory.

2 credits

Prerequisite: OPTI 2000, OPTI 2010, OPTI 2020, OPTI 2020L, PHYS 1020

Corequisite: OPTI 2040

#### OPTI 2050L Medical Billing for Optical Sciences and Laboratory

In this course, students will analyze basic concepts of optometry, documentation terminology, and the revenue cycle in the field of optical sciences. They will apply procedures for medical billing of healthcare services provided to patients. Students will demonstrate knowledge in diagnostic coding and procedures for billing and auditing. They will also assess the importance of methods for tracking claims and appeals according to medical coverage determinations and policies in the billing process. This course includes the use of a simulator.

3 credits

Prerequisites: ITTE 1031L, OPTI 2000, OPTI 2060

Corequisite: None

#### OPTI 2100 Laws Regulating the Optic Practice

In this course, students will analyze the laws that regulate the profession of licensed opticians. They will determine the differences between practicing in the field of optics and other visual health professionals. They will interpret ethical issues related to optics practice involving patients, colleagues, other related professionals, and the broader community.

2 credits

Prerequisite: None

Corequisite: None

#### OPTI 2110 Prescription Dispensing I

In this course, students will examine the types and components of eyeglass frames, facial measurements, and alignment. They will analyze the processes of delivering, fitting, adjusting, maintaining, and repairing eyeglass frames, single-vision, bifocal, and multifocal lenses, and the handling and maintenance of contact lenses. They will justify recommendations for ophthalmic treatments and accessories and the importance of developing the optician-patient relationship.

3 credits

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

Corequisite: OPTI 2110L

#### OPTI 2110L Prescription Dispensing I: Laboratory

In this course, students will apply concepts related to the principles of professional optics in their laboratory experiences. They will examine the types and components of eyeglass frames, facial measurements, and alignment. They will employ procedures for delivering, fitting, adjusting, maintaining, and repairing eyeglass frames, single-vision, bifocal, and multifocal lenses, and the handling and maintenance of contact lenses. They will demonstrate procedures for recommending ophthalmic treatments and accessories and developing the optician-patient relationship.

2 credits

Prerequisite: BIOL 1010, OPTI 2000, OPTI 2010, OPTI 2020, OPTI 2020L OPTI 2040, OPTI 2040L, OPTI 2030, OPTI 2030L, OPTI 2040, OPTI 2040L, OPTI 2150L

Corequisite: OPTI 2110

### OPTI 2120P Clinical Practice and Seminar

In this course, students will integrate the techniques and knowledge acquired through their coursework into their clinical practice experience. They will apply procedures for managing and performing administrative and office-related tasks, and those related to handling contact lenses and laboratory equipment while using correct terminology. They will demonstrate skills in providing guidance and assistance to patients in an optical office.

9 credits (45 hours of theory and 360 lab hours)

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

Corequisite: None

### OPTI 2150L Pre-Internship Laboratory in Frame Sizing

In this course, students will demonstrate proficiency in performing the functions and operations required in an optical laboratory. They will apply knowledge in the use and management of equipment to make lenses. In addition, they will interpret ophthalmic prescriptions for the production of lenses.

2 credits

Prerequisite: BIOL 1010, OPTI 2000, OPTI 2010, OPTI 2020, OPTI 2020L, OPTI 2040, OPTI 2040L, PHYS 1020

Corequisite: None

### OPTI 2160 Prescription Dispensing II

In this course, students will examine various types of frames and their components. They will determine factors that affect an ophthalmic prescription, such as vertex distance, lens rotations and tilts, and magnification. They will analyze procedures for designing and applying multifocal segments, as well as finishing operations, basic fitting techniques, and interpreting complex prescriptions. They will assess the importance of dedication to service and professionalism in filling in prescriptions.

3 credits

Prerequisite: OPTI 2110, OPTI 2110L

Corequisite: None

### PHAR 1619 PHARMACY AND MARKETING 4 CREDITS 60 HOURS

The purpose of the course is for the student to see the pharmacy from an administrative point of view, feeling empowerment of the business to maintain the clientele and be at the competitive level of the market. The historical background of the pharmacy, the responsibilities and administrative functions, the different types of pharmacies and the functions of the pharmacy technician, operational and administrative aspects of a pharmacy, including purchasing, inventory, merchandise management and marketing are discussed. Provides the student with basic skills in managing a business. The teaching and learning process will be carried out through conferences, socialized discussion, teamwork, and interactive exercises.

### PHAR 1620 PHARMACEUTICAL LEGISLATION 3 CREDITS 45 HOURS

The purpose of the course is for the student to obtain knowledge, mastery and recognize the scope of the laws and regulations as they are applied in their tasks, functions, and responsibilities. State and federal laws and regulations that govern the practice of pharmacy in Puerto Rico, the Controlled Substances Law, and the Regulations that regulate the Manufacture, Distribution, and Dispensing of drugs, among others, are discussed. The teaching and learning process will be carried out through conferences and socialized discussions.

PHAR 1621 PHARMACOGNOSIA 4 CREDITS 60 HOURS

*Pre-requirement: PHAR 1618*

The purpose of the course is for the student to acquire knowledge of drugs obtained from animal, vegetable, and microorganism sources to exercise and apply the knowledge, skills in their tasks and responsibilities. Crude drugs of natural origin and microorganisms or biotechnology are studied, drugs that are obtained from natural products and that through modifications in the extraction and purification processes are elaborated in laboratories, vitamins, minerals, carbohydrates, alkaloids, glycosides, anti-infectious and biological products, medicinal plants, natural and homeopathic products. The teaching and learning process will be carried out through conferences, socialized discussion, and teamwork. The course requires a laboratory. This course is offered face-to-face and not face-to-face.

PHAR 1622 DOSAGE 4 CREDITS 75 HOURS

*Pre-requirement: PHAR 1618*

The purpose of the course is for the student to acquire basic knowledge related to the doses and routes of administration of drugs. The concepts of doses, routes of administration, dosage forms, drug classification, self-medication, concepts to dispense drugs correctly and precisely so as not to make mistakes, abbreviations that are used in the interpretation of prescriptions, calculations and interactions of the drugs are discussed. medicines. Emphasize the use of books or internet technology when searching for drug information. The teaching and learning process will be carried out through conferences, socialized discussion, teamwork, and interactive exercises. The course requires a laboratory. This course is offered face-to-face and not face-to-face.

PHAR 1623 DISPATCH TECHNIQUES 5 CREDITS 105 HOURS

*Pre-requirements: PHAR 1618, PHAR 1621, PHAR 1622, PHAR 1624, PHAR 1625*

The purpose of the course is for the student to acquire knowledge and skills in the preparation of different dosage forms and the dispensing of prescriptions. The student becomes familiar with and uses the pharmacy equipment for dispensing compounding prescriptions or extemporaneous preparations. The RX 30 computerized system is also used. The teaching and learning process will be carried out through lectures, socialized discussion, teamwork, and interactive exercises. The course requires a laboratory.

PHAR 1624 PHARMACOTHERAPY I 5 CREDITS 90 HOURS

The purpose of the Pharmacotherapy I course is for the student to acquire basic knowledge related to drugs, supplements or products and their pharmacological effect. The human body is studied from the structural and functional point of view and the therapy of medications for the treatment and relief of symptoms in the most common pathological disorders. It includes pharmacokinetics, pharmacodynamics, adverse effects, and drug interactions, among others. Some of the systems discussed are Nervous, Cardiovascular, Hematological Systems, Muscular- Skeletal System, ophthalmic and auditory conditions, and the treatment of Cancer. The teaching and learning process will be carried out through conferences, socialized discussion, teamwork, and interactive exercises. The course requires a laboratory.

PHAR 1625 PHARMACOTHERAPY II 5 CREDITS 90 HOURS

*Pre-requirement: PHAR 1624*

The purpose of the Pharmacotherapy II course is for the student to acquire basic knowledge related to drugs, supplements or products and their pharmacological effect. The human body is studied from a structural and functional point of view and drug therapy for the treatment and / or relief of symptoms in the most common pathological disorders. It includes pharmacokinetics, pharmacodynamics, adverse effects, and drug interactions, among others. Some of the systems discussed are Respiratory, Digestive, Endocrine, Genito-Urinary and Integumentary Systems. The teaching and learning process will be carried

out through conferences, socialized discussion, teamwork, and interactive exercises. The course requires a laboratory.

PHAR 2101 PHARMACEUTICAL CHEMISTRY 3 CREDITS 45 HOURS

*Pre-requirement: PHAR 1618*

The purpose of the course is for the student to acquire knowledge related to the basic principles of the states of matter; solid, liquid and gaseous and understanding about the composition of drugs and biological and pharmacological processes. The basic concepts about the composition, structure, properties and behavior of matter, the atomic theory, the periodic table, solutions, acids and bases, the theoretical aspects of inorganic and organic chemistry that help to understand the processes of the body are discussed. and substances of biological and pharmaceutical importance. The teaching and learning process will be carried out through conferences, socialized discussion, teamwork, and interactive exercises.

PHAR 2102 INSTITUTIONAL PHARMACY 3 CREDITS 45 HOURS

*Pre-requirement: PHAR 1618*

The purpose of the course is to develop in the student the responsibility, in a precise and concrete way, in the dispensing of medicines, with high quality and safety to the patient within the institutional pharmacy. The procedures that are carried out, the types of hospitals, accreditation processes, minimum quality standards, drug formulations, different systems of dispensing, distribution, and procedures on the handling of different medications. Emphasis on the competencies of the Pharmacy Technician, interpretation of medical orders, dispensing, pharmaceutical calculations, reconciliation of medications including controlled substances. The teaching and learning process will be carried out through conferences, socialized discussion, teamwork, and interactive exercises.

PHAR 2103 STERILE PREPARATIONS AND 3 CREDITS 45 HOURS ASEPTIC TECHNIQUES

*Pre-requirements: PHAR 1618, PHAR 2102*

The purpose of the course is for the student to master aseptic techniques to guarantee the quality of the product and patient safety and to train them for the dispensing of sterile parenteral preparations. Emphasis is placed on hand washing techniques, pharmaceutical calculations, references, safety techniques, aseptic techniques in parenteral composition, proper use of equipment, preparation of sterile products, and safe handling of antineoplastic drugs. The teaching and learning process will be carried out through conferences, socialized discussion, teamwork, and interactive exercises.

PHAR 2109 INTERNSHIP I 14 CREDITS 540 HOURS

*Pre-requirements: PHAR 1618, PHAR 1619, PHAR 1620, PHAR 1621, PHAR 1622, PHAR 1623, PHAR 1624, PHAR 1625, SEMI 1105, SEMI 2507*

The purpose of the course is to integrate, apply and practice the knowledge and skills acquired during the approved courses in a real work setting. The internship phase is carried out within a community and / or institutional pharmacy, under the direct supervision of a licensed pharmacist duly authorized by the Board of Pharmacy in Puerto Rico and designated as the preceptor pharmacist. The total hours required during Internship I is 540 hours.

PHAR 2110 INTERNSHIP II 14 CREDITS 540 HOURS

*Pre-requirements: PHAR 1618, PHAR 1619, PHAR 1620, PHAR 1621, PHAR 1622, PHAR 1623, PHAR 1624, PHAR 1625, PHAR 2109, SEMI 1105, SEMI 2507*

The purpose of the course is to integrate, apply and practice the knowledge and skills acquired during the approved courses in a real work setting. The internship phase is carried out within a community and / or institutional pharmacy, under the direct supervision of a licensed pharmacist duly authorized by the

Board of Pharmacy in Puerto Rico and designated as the preceptor pharmacist. The total hours required during Internship II is 540 hours.

**PHAR 2112 INTERNSHIP III 11 CREDITS 500 HOURS**

*Pre-requirements: ENGL 1101, ENGL 1102, PHAR 1618, PHAR 1619, PHAR 1620, PHAR 1621, PHAR 1622, PHAR 1623, PHAR 1624, PHAR 1625, PHAR 2101, PHAR 2102, PHAR 2103, SEMI 1105, SPAN 1101, SPAN 1102*

The purpose of the course is to integrate, apply and practice the knowledge and skills acquired during the approved courses in a real work setting. The internship phase is carried out within a community and / or institutional pharmacy, under the direct supervision of a licensed pharmacist duly authorized by the Board of Pharmacy in Puerto Rico and designated as the preceptor pharmacist. The total hours required during Internship I is 500 hours.

**PHAR 2113 INTERNSHIP II 11 CREDITS 500 HOURS**

*Pre-requirements: ENGL 1101, ENGL 1102, PHAR 1618, PHAR 1619, PHAR 1620, PHAR 1621, PHAR 1622, PHAR 1623, PHAR 1624, PHAR 1625, PHAR 2101, PHAR 2102, PHAR 2103, PHAR 2112, SEMI 1105, SEMI 2507, SPAN 1101, SPAN 1102*

The purpose of the course is to integrate, apply and practice the knowledge and skills acquired during the approved courses in a real work setting. The internship phase is carried out within a community and / or institutional pharmacy, under the direct supervision of a licensed pharmacist duly authorized by the Board of Pharmacy in Puerto Rico and designated as the preceptor pharmacist. The total hours required during Internship II is 500 hours.

**PHAR 6150 ADVANCED PHARMACOLOGY 2 CREDITS 30 HOURS**

In the course, the actions, and effects of drugs in the different pathological processes are analyzed. The role of the nurse (or specialist in the administration of medication within the multidisciplinary team) is analyzed. The chemical processes of drugs, their therapeutic effects and unwanted effects are analyzed through reading. The students in group discussion deepens their previous knowledge of their nursing interventions related to pharmacotherapy. The students will make oral presentations and do case study.

**PHEX 6144 ESTIMATED HEALTH IN 2 CREDITS 60 HOURS ADVANCED PRACTICE**

This course develops history taking and physical examination skills throughout the life cycle. Applies scientific knowledge of anatomy, physiology, pathology to perform physical examination and examination of the client. It uses different findings to establish nursing diagnoses in the problems encountered. To be used as a basis when planning and evaluating care. The student applies a history and an estimation instrument applying nursing theory. The student will take a practical exam and carry a portfolio of physical exams.

**PHSC 2000 INTRODUCTION TO PHYSICS 3 CREDITS 45 HOURS**

The course is designed to facilitate the learning of the basic concepts and principles of physics that will form the foundation of most science and technology studies. Physics is described as a mathematical science that studies the nature of matter, energy, and the relationships between the two. This course has an additional 90 hours of outside work. This course is offered face-to-face and not face-to-face.

**PHSC 1020 Introduction to Physics**

In this course, students will analyze the importance of physics concepts, the use of mathematical formulas, and measurement systems in the health field. They will examine different types of motion, Newton's laws, and the relationship between work and energy. Additionally, students will evaluate the behavior of particles in

the three states of matter, the properties of liquids, and the main laws of gases. They will also explain physical phenomena such as acoustics, radiation, and electricity in their future professional field.

3 credits (45 hours of theory)

Prerequisite: MATH 1010 Corequisite: None

#### PHSC 2030 Ultrasound Physics and Instrumentation I

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.

3 credits

Prerequisite: MATH 1010

#### PHSC 2040 Ultrasound Physics and Instrumentation II

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.

3 credits

Prerequisite: PHSC 2030

#### PHYS 1020 Introduction to Physics

In this course, students will analyze the importance of physics concepts, the use of mathematical formulas, and measurement systems in the health field. They will examine different types of motion, Newton's laws, and the relationship between work and energy. Additionally, students will evaluate the behavior of particles in the three states of matter, the properties of liquids, and the main laws of gases. They will also explain physical phenomena such as acoustics, radiation, and electricity in their future professional field.

3 credits Prerequisite: None Corequisite: None

#### PROG 1035L Introduction to Computer Programming Logic and Laboratory

In this course, students will discuss the fundamental concepts of underlying logical principles in computer systems. 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. Additionally, they will apply skills in developing and optimizing computer systems.

3 credits

Prerequisite: None

Corequisite: None

#### PROG 2400L Scripting Languages and Laboratory

In this course, students will develop skills in script writing and execution, task automation and data manipulation. Additionally, they will develop skills in the use of scripting languages for resolving incidents in various contexts in a business environment.

3 credits

Prerequisite: PROG 1035L

Corequisite: None

**QUME 5103 QUANTITATIVE METHODS      3 CREDITS      45 HOURS**

Basic course in business statistics; they emphasize specific applications to administrative disciplines. In this course, sampling, probability, dispersion, and distribution methods are studied. In addition, hypothetical decisions, analysis of variances, are tested *chi* square, linear regression, and correlations. Topics of nonlinear regression, multivariate analysis, and exploratory data analysis are introduced. Quality control and administrative decision case studies are assigned and discussed. Knowledge is measured through tests, practice exercises, case analysis, and discussion questions.

**RADI 1010 Introduction to Radiology**

In this course, students will examine the origin and development of radiological technology. Likewise, they will explain the radiologist's 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, and patient management and care.

2 credits Prerequisite: None Corequisite: None

**RADI 2009 Radiological Physics**

In this course, students will identify physics concepts related to radiation, including electricity, magnetism, and electromagnetism, as well as the associated laws. Likewise, they will examine the relevant terminology and applications of the laws of physics. Furthermore, they will analyze the mathematical operations necessary to understand radiology.

3 credits

Prerequisite: PHYS 1020

Corequisite: None

**RADI 2010 Patient Care and Management**

In this course, students will determine the applicability of appropriate techniques and procedures before, during, and after radiological interventions, as well as the importance of fostering trust and safety through effective communication with patients. They will justify the integration of infection control techniques and aseptic principles in patient management and care across various clinical settings. Moreover, they will apply techniques and procedures for taking vital signs and for identifying and managing emergencies during radiological interventions.

3 credits Prerequisite: None Corequisite: None

**RADI 2020 Radiological Positioning and Related Anatomy I**

In this course, students will analyze the principles and general rules of patient positioning for radiographic imaging. They will also examine techniques for performing radiological procedures. Furthermore, they will identify pathologies related to the anatomical areas being radiographed.

2 credits

Prerequisites: BIOL 2020, RADI 1010, RADI 2010 Corequisite: RADI 2020L

**RADI 2020L Radiographic Positioning and Related Anatomy I: Laboratory**

In this course, students will apply the principles and general rules of patient positioning for radiographic imaging. 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.

1 credit

Prerequisites: BIOL 2020, RADI 1010, RADI 2010

Corequisite: RADI 2020

### RADI 2030 Knowing Imaging Modalities and Equipment

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.

2 credits

Prerequisite: RADI 1010

Corequisite: None

### RADI 2040L Integrative Seminar and Laboratory

In this course, students 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.

2 credits

Prerequisites: RADI 1010, MESE 1010 Corequisite: None

### RADI 2050 Principles of Radiographic Exposure

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.

3 credits

Prerequisites: RADI 1010, RADI 2009 Corequisite: None

### RADI 2060 Principles of Radiobiology and Radiographical Protection

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.

2 credits

Prerequisite: RADI 2009

Corequisite: None

### RADI 2070 Radiographic Positioning and Related Anatomy II

In this course, students will analyze the principles and general rules of patient positioning for radiographic 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 anatomical areas being radiographed. They will also apply knowledge related to patient assessment, medical orders, radiological protection, exposure factors, and radiographic quality.

2 credits

Prerequisites: RADI 2020, RADI 2020L

Corequisite: RADI 2070L

### **RADI 2070L Radiographic Positioning and Related Anatomy II: Laboratory**

In this course, students will distinguish the principles, concepts, and general rules of patient positioning for radiographic imaging. They will also analyze a medical order and the clinical history of a patient prior to taking radiographic images. Furthermore, they will apply procedures and techniques for radiographic imaging of the human body's extremities.

1 credit

Prerequisites: RADI 2020, RADI 2020L

Corequisite: RADI 2070

### **RADI 2080P Clinical Internship I**

In this course, students will demonstrate the skills and competencies required for the role of a radiologic technologist. They will employ their skills to perform radiologic studies in real-world settings. They will also apply the knowledge acquired in previous courses to take 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.

3 credits

Prerequisites: BIOL 2020, RADI 2010, RADI 2020L, RADI 2040L

Corequisite: None

### **RADI 2100 Radiographic Positioning and Related Anatomy III**

In this course, students will analyze the principles and general rules of patient positioning for radiographic imaging. They will also examine the techniques used for radiographic procedures of the skull, facial bones, and the entire spine. They will also identify the signs of pathologies related to the anatomical areas being radiographed. Furthermore, they will apply knowledge related to patient assessment, reading medical orders, radiological protection, exposure factor identification, and radiographic quality. (This course includes the use of a simulator.)

2 credits

Prerequisites: RADI 2070, RADI 2070L

Corequisite: RADI 2100L

### **RADI 2100L Radiographic Positioning and Related Anatomy III: Laboratory**

In this course, students will apply the principles and general rules of patient positioning for radiographic imaging. They will employ the techniques used for radiographic procedures of the skull, facial bones, and the entire spine. Additionally, they will describe pathologies related to the anatomical areas being radiographed. Furthermore, they will explain processes related to patient assessment, reading medical orders, radiological protection, exposure factor identification, and radiographic quality. (This course includes the use of a simulator.)

1 credit

Prerequisites: RADI 2070, RADI 2070L Corequisite: RADI 2100

### **RADI 2110P Clinical Internship II**

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.

3 credits

Prerequisites: RADI 2050, RADI 2060, RADI 2070, RADI 2070L, RADI 2080P

Corequisite: None

**RADI 2120 Contrast Media**

In this course, students will analyze the various contrast media used for the visualization of radiographic structures. They will also examine the composition of contrast media and the requirements for their administration, as well as contraindications and potential adverse reactions. Additionally, they will describe their role in the preparation and handling of contrast media in accordance with the ethical and legal aspects associated with the profession.

2 credits

Prerequisite: RADI 1010, RADI 2010, BIOL 2020, MESE 1010

Corequisite: None

**RADI 2130 Radiological Pathology**

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.

2 credits

Prerequisites: BIOL 2020, RADI 2170 Corequisite: None

**RADI 2140 Radiographic Positioning and Related Anatomy IV**

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.

2 credits

Prerequisites: RADI 2100, RADI 2100L, RADI 2200

Corequisite: RADI 2140L

**RADI 2140L Radiographic Positioning and Related Anatomy IV: Laboratory**

In this course, students will apply the principles and general rules of patient positioning for radiographic imaging. 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.

1 credit

Prerequisites: RADI 2100, RADI 2100L, RADI 2200

Corequisite: RADI 2140

**RADI 2150P Clinical Internship III**

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.

3 credits

Prerequisites: RADI 2100, RADI 2100L, RADI 2110P, RADI 2200, RADI 2170

Corequisite: None

### RADI 2160 Pre-Board Seminar

In this course, students will review concepts related to radiologic technology (RT) 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. Additionally, they will apply concepts related to the areas covered by the certification exam, such as patient care, safety, radiographic procedures, and image acquisition.

1 credit

Prerequisites: All courses previous to the sixth term

Corequisite: None

### RADI 2170 Radiographic Quality Assurance and Control

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.

2 credits

Prerequisite: RADI 2050

Corequisite: None

### RADI 2200 Pharmacology and Contrast Media in Diagnostic Imaging

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.

3 credits

Prerequisite: RADI 1010

Corequisite: None

### RADI 2500 Advanced Sectional Anatomy

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.

4 credits

Prerequisites: BIOL 2030, BIOL 2030L

Corequisite: None

### RADI 3000 Physics: Instrumentation and Images in Computed Tomography

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.

3 credits

Prerequisite: RADI 2500

Corequisite: None

#### RADI 3010 Procedures for Image Formation in Computed Tomography

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.

3 credits

Prerequisite: RADI 2500

Corequisite: None

#### RADI 3020 Pathological Correlation by Computed Tomography

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.

3 credits

Prerequisite: RADI 2500

Corequisite: None

#### RADI 3030 Procedures for Obtaining Images by Magnetic Resonance

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.

3 credits

Prerequisite: RADI 2150P

Corequisite: None

#### RADI 3040 Pathological Correlation by Magnetic Resonance

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.

3 credits

Prerequisite: RADI 2500

Corequisite: None

#### RADI 3050 Physics: Principles, Parameters, and Concepts of Magnetic Resonance

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.

3 credits

Prerequisite: RADI 2500

Corequisite: None

### RADI 3060 Ethics and Law in Imaging Sciences

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.

3 credits

Prerequisite: RADI 1010

Corequisite: None

### RADI 3070 Computers in Medical Imaging and Informatics

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.

3 credits

Prerequisite: ITTE 1031L

Corequisite: None

### RADI 4010P Clinical Internship in Computed Tomography

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.

6 credits

Prerequisites: RADI 3000, RADI 3010, RADI3020

Corequisite: None

### RADI 4020P Clinical Internship in Magnetic Resonance

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.

6 credits

Prerequisite: RADI 2500

Corequisite: None

### RADI 4030 Pre-Certification Seminar in Technology Radiology, CT, and MRI

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.

3 credits

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, BIOL 2030, BIOL 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

Corequisite: None

#### RADI 4040 Research Methods and Computer Literacy

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 value the importance of developing and disseminating intellectual research, information literacy, and the use of academic research methods in the profession.

3 credits

Prerequisite: ITTE 1031L Corequisite: None

#### RADI 4050 Educational Principles for Technologists

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 setting. Additionally, they will apply the key elements required for the development of a learning experience.

3 credits

Prerequisite: ITTE 1031L

Corequisite: None

#### SCIE 4001 GENERAL SCIENCE I 3 CREDITS 45 HOURS

The course aims to develop in the student an integrated understanding of science, as well as the composition, functioning and conservation of the human body and the effects of these in the life of man. The teaching and learning process will be carried out through lectures on current political and social situations, discussion of clinical cases using presentations, organization charts, empty sketches, and visits to the community.

#### SCIE 4002 ENVIRONMENTAL SCIENCE II 3 CREDITS 45 HOURS

The purpose of the course is for the student to develop skills in the relationship of man with his environment. It will review other sciences such as: Sociology, Politics and Economics that will help to obtain a healthy, political - social, clinical, and preventive basis for economic and health problems. The teaching and learning process will be carried out through conferences, analysis of current political and social situations, discussion of clinical cases using presentations, organization charts, empty sketches, and visits to the community.

#### SECU 1040 OSHA SAFETY AND REGULATIONS 3 CREDITS 45 HOURS

The purpose of this course is to make students aware of the laws and regulations that significantly impact organizations in terms of safety and health. In this course they must learn the regulations of the Occupational Safety and Health Administration, federal and state. Students learn to design an occupational safety and health program and implement occupational safety and health training. Student knowledge is determined through readings, reports, and projects.

SEMI 2507 INTEGRATION SEMINAR 2 CREDITS 30 HOURS TO THE ROLE OF THE PHARMACY TECHNICIAN

*Pre-requirements: PHAR 1618, PHAR 1619, PHAR 1620, PHAR 1621, PHAR 1622, PHAR 1623, PHAR 1624, PHAR 1625, SEMI 1105*

The purpose of the course is to support the student in the transition to the role of Pharmacy Technician in the workplace. Emphasis is placed on the review and integration of knowledge and skills for the preparation of the revalidation exam. Techniques and strategies in job search, resume preparation, interview, attitudes, and skills necessary to strengthen personal and professional development and achieve goals are discussed. The teaching and learning process will be carried out through conferences, socialized discussion, teamwork, and interactive exercises.

SEMI 3008 LIFE REFLECTION SEMINAR 3 CREDITS 45 HOURS

The purpose of the course is for the student to reflect on the most relevant aspects of their personal, social, and professional life to create a physical and mental balance that helps them discover the phases that they must improve from their current position and the steps to take. continue in the future. The teaching and learning process will be carried out through reflections, a concept map, socialized discussion, and oral reports on topics related to the objectives of the course.

SONO 1020 Introduction to Medical Sonography

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.

3 credits Prerequisite: None

SONO 1030 Patient Management and Care in Sonographic Imaging

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.

3 credits

Prerequisite: None

SONO 1040L Abdominal Sonography and Laboratory

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.

4 credits

Prerequisites: SONO 2010, SONO 1030, MESE 1010

SONO 2020L Gynecological Sonography and Laboratory

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.

4 credits

Prerequisites: SONO 2010, SONO2020L, SONO 1030, MESE 1010, PHSC2023

**SONO 2030L Laboratory of Integration of Clinical Skills in Medical Sonography**

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.

2 credits

Prerequisites: SONO 2010, SONO 1030, MESE 1010, SONO 2040L

Corequisite: SONO 2020L

**SONO 2040P Clinical Practice I: Medical Sonography**

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.

2 credits

Prerequisites: SONO 2130L, SONO 2020L Corequisite: SONO 2050L

**SONO 2050L Obstetric Sonography and Laboratory**

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.

4 credits

Prerequisites: SONO 2010, SONO 1030, MESE 1010, PHSC2023

**SONO 2060P Clinical Practice II: Medical Sonography**

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.

2 credits

Prerequisite: SONO 2040P

**SONO 2070L Sonography of Superficial Structures and Laboratory**

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.

4 credits

Prerequisite: SONO 2030L, PHSC 2040

**SONO 2071 Pathology Applied to Medical Sonography I**

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.

3 credits

Prerequisites: SONO 1040L, SONO 2020L, SONO 2050L, SONO 2070L

**SONO 2072 Pathology Applied to Medical Sonography II**

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.

3 credits

Prerequisite: SONO 2150

**SONO 2080 Pre-Certification Exam Seminar in Medical Sonography**

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.

2 credits

Prerequisites: SONO 2040L, SONO 2020L, SONO 2050L, SONO 2070L, SONO 2071, PHSC 2040

**SONO 2090 Special Procedures in Medical Sonography**

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.

2 credits

Prerequisites: SONO 1040L, SONO 2020L, SONO 2050L, SONO 2070L, SONO 2071

**SONO 3000P Clinical Practice III: Medical Sonography**

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.

5 credits

Prerequisites: BIOL 2010, BIOL 2020, BIOL 2030, BIOL 2030L, SONO 1020SONO 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**

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.

3 credits

Prerequisite: SONO 3000P

Corequisite: ANAT 2040

**SONO 3020L Basic Echocardiography and Laboratory**

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.

4 credits

Prerequisite: SONO 3000P

**SONO 3030L Sonographic Evaluation of Cardiac Pathologies and Laboratory**

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.

3 credits

Prerequisite: ANAT 2040, SONO 3020L

**SONO 3040L Cardiovascular Technology Laboratory**

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.

2 credits

Prerequisite: ANAT 2040, SONO 3010L, SONO 3020L

**SONO 3050L Vascular Sonography of Upper Extremities, Clinical Application and Laboratory**

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.

3 credits

Prerequisite: SONO 3040L

**SONO 3060L Cerebrovascular Sonography, Clinical Application and Laboratory**

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.

3 credits

Prerequisite: SONO 3040L

**SONO 3070P Sonography and Cardiovascular Technology Practice I**

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.

4 credits

Prerequisite: SONO 3040L

**SONO 3080L Vascular Sonography of Lower Extremities, Clinical Application and Laboratory**

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.

3 credits

Prerequisites: SONO 3050L, SONO 3060L

**SONO 4010L Abdominal Doppler and Laboratory**

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 portacaval systems. They will identify the most common pathologies in these structures and their respective treatments

3 credits

Prerequisites: SONO 3050L, SONO 3060L

**SONO 4020P Sonography and Cardiovascular Technology Practice II**

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.

4 credits

Prerequisites: SONO 3050L, SONO 3060L, SONO 3070P

**SONO 4030 Pre-Certification Seminar in Cardiovascular Sonography**

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.

2 credits

Prerequisites: PHSC 2030, PHSC 2040, SONO 3020L, SONO 3030L, SONO 3050L, SONO 3060L, SONO 3070P

**WADE 1000L Front End Technologies and User Interface (UI) and Laboratory**

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.

3 credits

Prerequisite: PROG 1035L Corequisite: None

**WADE 1050L Web Page Creation and Design and Laboratory**

In this course, students will examine basic concepts of web programming. They will develop a website using programming languages such as HTML and CSS, among others. In addition, they will integrate graphic and multimedia elements into web page design.

3 credits

Prerequisite: WADE 1000L

Corequisite: None

**WADE 2000L Content Management Systems (CMS) and Laboratory**

In this course, students will develop knowledge of content management systems (CMS). They will also examine the features and advantages of predefined structures and functionalities that facilitate the development and organization in web application programming. In addition, they will apply techniques for creating, organizing, and publishing content through CMS administration.

3 credits

Prerequisite: WADE 1050L

Corequisite: None

**WADE 2050L Data Structures and Laboratory**

In this course, students will analyze the fundamentals of creating organized and efficient structures for information storage and management. They will apply techniques for designing sets of tables with defined relationships and constraints that ensure data integrity. In addition, they will employ knowledge of normalization for optimizing database design. Furthermore, they will develop skills in designing databases that meet project requirements and facilitate secure information manipulation and retrieval.

3 credits

Prerequisite: PROG 1035L

Corequisite: None



## **RIGHT TO CORRECT THE CATALOG**

The provisions contained in this publication should not be considered as an irrevocable contract between an applicant or student and Columbia Central University. The Institution reserves the right to amend this Catalog while it is in force. Each one of the changes that this Catalog undergoes will be notified and exposed for the benefit of the entire university community, through previously approved amendments.

### Special Re-educational Measures

Everything contained in this catalog should not be construed as limiting the authority of the Columbia Central University Board of Directors or the Institution's Administration to initiate and adopt measures deemed necessary in situations not foreseen or contained in this document.

### Separation in Catalog Provisions

The non-constitutionality or non-execution of any of the parts of this Catalog will not affect the validity of its remaining parts.

## **TUITION, FEES, AND OTHER CHARGES**

## Tuition, Fees and Other Charges

**Effective for Terms starting on or after 01/01/2026 - Revised 11/01/2025**

The Tuition, Fees, and Other Charges listed below are applicable to all students enrolled at NUC University (NUC) and NUC University - IBC Technical Division, Columbia Central University (CCU), with the exception of students enrolled in NUC University – South Florida Campus or continuing education courses. The institution reserves the right to review costs as needed. These changes are duly notified to students prior to its implementation. Students are encouraged to be attentive for announcements regarding Tuition, Fees, and Other Charges, which are published at the catalog.

### 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

#### Diploma, Undegraduate, Post-Bachelor Certificates and Master Degree Programs *(Excluding Nursing Destination School)*

Credits per Term	Cost per term	
	Puerto Rico Resident	Non-Puerto Rico Resident
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

#### Nursing Destination School

Programs	Cost per Credit
Associate Degree in Nursing - Nursing Destination School (Started on or before 2/28/2025)	399.00
Associate Degree in Nursing - Nursing Destination School (Started on or after 3/1/2025)	280.00

**Master's Degrees Programs**  
**(Applicable to programs started before January 2026)**

Description	Cost per Credit
Started on or before 6/30/2024	
Alumni students	150.00
Non-Alumni students	165.00
Started on or before 7/01/2024	163.00

**Doctoral Programs**

Resident Type	Cost per Credit
Puerto Rico Resident	350.00
Non-Puerto Rico Resident	450.00

Other Modality	Cost per Credit
Audit or Non Degree Seeking Students	195.00

**FEES**

Description	Amount
<b>Technology Resources and Administrative Services<sup>1</sup> (per term)</b>	
Associate Degree in Nursing - Nursing Destination School	375.00
Other programs	405.00
<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.

Description	Amount
Certification of Contact Hours – Continuing Education	10.00
Certifications	15.00
Change of Course(s)/Concentration	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
Duplicate of Student ID	5.00
Evaluation of Foreign Academic Credentials	100.00
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
Removal of Incomplete (per course)	50.00
Returned Check “NSF”	15.00

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

<sup>2</sup> The student may opt out of this charge. The electronic device fee applies only to the term in which the student receives the equipment and will not be refundable unless the student returns the equipment unused (sealed box), or is certified as defective by authorized personnel of the institution.

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

## Description of Tuition and Fees

**Tuition** - Supports costs associated with course development and instruction. It includes 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 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.