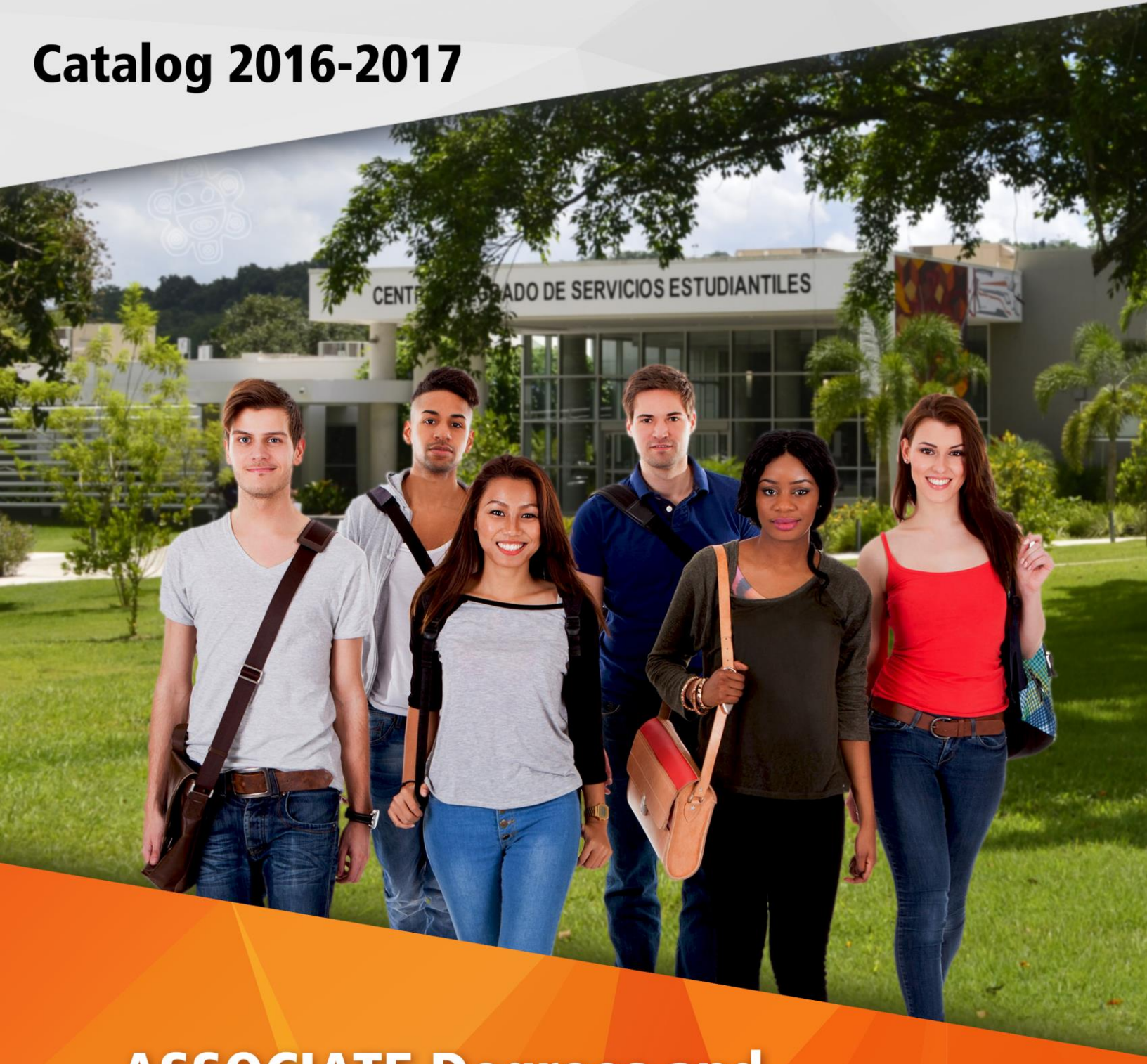
Catalog 2016-2017



ASSOCIATE Degrees and TECHNICAL Programs

TURABO | UNIVERSIDAD DEL TURABO

SISTEMA UNIVERSITARIO ANA G. MÉNDEZ

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POLICY STATEMENT:

This catalog contains the major points of the current agreement between the students and the Institution. Within this agreement, the institution reserves the right to make changes in course offerings, curricula, and other policies affecting its programs.

Due to the changing nature of professions, the institution is continuously reviewing and restructuring many of its academic programs in an effort to enhance their quality, improve efficiency, and to comply with requirements of professional boards, accrediting agencies, and governmental laws and regulations, among others. In that process, some of the programs and courses mentioned in this catalogue may be modified, consolidated with other programs and courses, or eliminated. **When the curriculum of any one program is revised, the institution will automatically initiate the transfer process of every student enrolled in said program to the revised curriculum but without increasing the number of credits required for the students to finish the program.**

If you have questions about a particular program of course, you should contact the appropriate university school or department. In case that a program is eliminated, the program director will prepare a course schedule to assure the graduation of those students enrolled in the program.

Revised: April 2017

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ASSOCIATE DEGREES & TECHNICAL PROGRAMS

OUR PROFILE

Universidad del Turabo is a nonprofit institution of higher education located 15 miles southeast of San Juan, Puerto Rico, within easy reach of the entire east-central part of the island. Its 140-acre suburban campus and its fifteen buildings provide an ideal atmosphere for the learning experience. The university currently operates five (5) Additional Locations located in Barceloneta, Cayey, Yabucoa, Isabela, and Ponce, and five (5) US Branch Campuses three (3) in Florida, one (1) in Maryland and one (1) in Texas. It offers technical and professional certificates, associate, bachelor's, master's and doctoral degrees.

The academia is organized into nine (9) main schools: School of Engineering, International School of Design and Architecture, Natural Sciences and Technology, Health Sciences, Social Sciences and Communications, Education, Business and Entrepreneurship, Technical Professional Studies, the School of Continuing Education, the Deanship of General Education, and one (1) SUAGM systemic, the School of Professional Studies.

The General Education Deanship was established to address the particular needs of new students admitted to the University. In addition to offering first-year and second-year courses in the General Education Component (GEC), the Deanship of General Education provides an array of support services to students in their first and second year.

Two other divisions that provide educational services to different populations are the School of Technical Studies, which offers post-secondary professional careers and associate degrees in technical fields, and the School of Professional Studies (AHORA), which serves adults who have had previous university experience, are full-time employees, and can benefit from an accelerated adult learner program at the undergraduate or graduate level. The School provides a university environment for the professional adult where the teaching methodologies, as well as the academic and administrative services are tailored to meet the genuine needs of this population.

It is a professionally oriented institution with a variety of offerings, from technical certificates to doctoral degrees. The institution serves a diversified student body mostly from the surrounding communities, with a variety of economic and educational backgrounds.

Founded in 1972, Universidad del Turabo has continued to grow in the new millennium. The student population of more than 15,000 is composed of young adults and professionals.

The academic staff consists of more than two hundred thirty-six (236) full-time faculty members and three hundred eighty (380) full-time equivalent professors. The full-time faculty members hold doctorates and master's degrees in their fields of expertise. Nearly sixty-four (64) percent of Universidad del Turabo's full-time faculty hold a doctoral degree and thirty-nine (39) percent of part-time faculty holds a doctoral degree. The gender distribution of the faculty is equally divided. Universidad del Turabo is a member of the Ana G. Méndez University System.

MISSION

Universidad del Turabo is an institution of higher education with broad academic offerings of the highest standards of quality. Committed to excellence in teaching, research, innovation, internationalization, and social-humanistic values for a diverse academic population, Universidad del Turabo forms global citizens with critical thinking skills which contribute to the development and well-being of Puerto Rico and other countries.

VISION

The vision of the Universidad del Turabo is to be the leading educational institution in teaching and research, which promotes innovation, entrepreneurship, internationalization, and sensibility towards cultural diversity and the environment.

INSTITUTIONAL VALUES STATEMENT

Universidad del Turabo is committed, as an institution of higher education, to:

1. Freedom of thought and expression
2. Excellence in teaching and the pursuit, generation, dissemination and application of knowledge
3. Respect the dignity of the individual
4. Respect nature and the environment
5. Promote ethical, social and cultural values
6. Recognize and respect diversity
7. Promote institutional excellence in planning, operations and service
8. Promote human and esthetic sensibility.

INSTITUTIONAL OBJECTIVES

To fulfill its mission, Universidad del Turabo:

1. Maintains a flexible admissions policy in which each academic school establishes requirements for its programs.
2. Provides services to a diversified student body to help it achieve academic and personal goals.
3. Fosters research to strengthen the teaching and learning processes as well as to improve the quality of life in the surrounding communities.
4. Promotes the internationalization of its academic programs through strategic alliances.
5. Develops and implements a systematic faculty development plan to improve academic credentials, pedagogical competencies and instructional technology skills.
6. Recruits and develops quality human resources.
7. Provides academic skills and career-oriented activities to precollege students, as well as opportunities for continuing education, thus fulfilling the needs of the community.
8. Promotes the use of innovative and nontraditional teaching methodologies.
9. Promotes ethical values that will allow students to exert their professional judgment and performance responsibly.
10. Fosters the preservation and dissemination of those values inherent to Puerto Rican culture in a global context.
11. Establishes collaborative partnerships among universities, government, industry, and community organizations.
12. Contributes to students' awareness of their rights and responsibilities as citizens in a democratic society.

ACCREDITATIONS AND AFFILIATIONS

Regional Accreditation

Middle States Commission on Higher Education (MSCHE), 3624 Market Street, Philadelphia, PA 19104
Telephone: 267-284-5000

Specialized Accreditations

1. Accreditation Council for Education in Nutrition and Dietetics (ACEND)
2. American Chemical Society (ACS)
3. ABET
4. Association to Advance Collegiate Schools of Business (AACSB)
5. Commission on Collegiate Nursing Education (CCNE)
6. Council on Academic Accreditation in Audiology and Speech-Language Pathology - American Speech-Language Hearing Association (CAA-ASHA)
7. Council on Naturopathic Medical Education (CNME)
8. Council for the Accreditation of Educator Preparation (antes TEAC)
9. Council on Social Work Education (CSWE)
10. American Psychological Association (APA)
11. National Architectural Accrediting Board (NAAB)
12. International Association for Continuing Education and Training's (IACET)

For information about accreditation status, visit http://ut.suagm.edu/es/academia/acreditaciones.

LICENSURES

Puerto Rico Council on Education
PO Box 19900
San Juan, PR 00910-1900

Pennsylvania Department of Education
333 Market Street Harrisburg, PA 17126
Offering: MEd Teaching of English as a Second Language

St. Croix
Center RR2 Box 9296
Kingshill #3 Vicorp Property Kingshill
St. Croix, USVE, 00850
Offering: MEd Teaching of English as a Second Language

St. Thomas/St. John School District
1834 Kogens Gade
St. Thomas, USVI 00802
Offering: MEd Teaching of English as a Second Language

CENTRAL ADMINISTRATION AND BOARD OF DIRECTORS

The Ana G. Méndez University System (the System) is a not for profit private corporation established under the laws of the Commonwealth of Puerto Rico. It is comprised of four (4) academic institutions, one (1) non commercial private TV Station for public broadcasting, and a Central Administration, under which all administrative affairs of the institution are managed by a President/CEO. Universidad del Turabo is one of the four (4) academic institutions.

A thirteen (13) -member board of trustees governs the System. Of these, five (5) are permanent members. The other eight (8) members are elected by the board for two term periods of two (2) years each, and two periods of four-(4) years, that add up to a maximum of 12 years of service in the board. The board members are distinguished professionals who represent different career paths and fields of work, and/or civic and community leaders.

The chief executive officer (CEO) of Ana G. Méndez University System is the President, and there is also an Executive Vice President. Each of the administrative and academic components has its own CEO. Thus, the Central Administration units are led by Vice Presidents for: Planning and Academic Affairs, Marketing and Student Affairs, Finance Affairs, Administrative Affairs, Human Resources, National Affairs, and International Affairs. There is also a Vice President and General Manager of Sistema TV., the only non-academic institution. The other institutional officers are the Chancellors of the four academic institutions, which are: Universidad del Turabo, Universidad Metropolitana, Universidad del Este, and Universidad Ana G. Méndez – Campus Virtual. A fifth Chancellor manages the operation of all the academic institutions established in Florida, USA. All Chancellors and Vice Presidents respond directly to the President/CEO, who appoints them.

The System's bylaws define the objectives, powers, officers, committees, meetings and the general handling of the financial affairs of the institutions. The Governing Manual describes the way in which the Board of Directors governs all institutional affairs. The Institutional Bylaws specify the way in which each one of the autonomous institutions will be operated and administered.

The Board is the policy-making, legislative and fiscal oversight body of the System. In addition to appointing the President, the Board is responsible of all corporate affairs and control of the corporation. It approves the institutional mission and vision, the strategic and long range institutional plans, and its annual and special budgets. The President/CEO, who is also a Board member, is directly responsible to the Board for the administration of all corporate business; including the appointment of VPs and institutional officers; personnel administration and compensation; and recommendation to the Board of academic programs and long-range institutional plans.

The Board has four working committees:
Government
Academic and Student Affairs
Finance
Audit

BOARD OF DIRECTORS

Mr. Ramiro Millán Catasús, President of the Board
Dr. Félix Rodríguez Schmidt, Vice-president of the Board and Permanent Member
Mr. José F. Méndez, Jr. President of SUAGM and Permanent Member
Dr. José F. Méndez González, President Emeritus and Permanent Member
Dr. Víctor Hernández
Mr. Héctor A. Jiménez Ramírez,
Mr. René A. León Rodríguez
Mr. Rafael A. Nadal Arcelay, Esq. Permanent Member
Dr. Herminio Martínez, Permanent Member
Sr. Manuel Agosto García
Dr. René A. Soto Torres
Mr. Wilfredo Cosme Ortiz
Sra. Rita DiMartino

Gloria Castillo, Secretary of the Board
José E. de la Cruz Skerrett, Esq., Legal Advisor

CAMPUS ADMINISTRATION

Office of the Chancellor

Dennis Alicea / Chancellor
Gladys Betancourt / Vice-Chancellor for Administrative Affairs
Iris N. Serrano / Director of Public Relations
Jacqueline Mullen-Hunt / Vice Chancellor of External Resources
Alba Rivera / Assistant Vice-Chancellor of Development
René Rhonda / Alumni Director
Carmen T. Ruiz / Director, Josefina Camacho de la Nuez Musseum and Center for Humanistic Studies
Vivian Cordero / Director of International Affairs

Office of the Vice Chancellor

Roberto Lorán / Vice-Chancellor
Elaine Guadalupe Ahedo / Associate Vice-Chancellor
Edna Orta Anés / Associate Vice-Chancellor for Administrative Affairs
Ernesto Espinoza / Assistant Vice-Chancellor for Assessment
Rafael Lozano / Associate Vice-Chancellor for Retention
Juan Del Valle / Associate Vice Chancellor for Evening and Saturday Programs
René Rodríguez / Assistant Vice-Chancellor for Faculty Evaluation and Development
Keila Roche León / Assistant Vice-Chancellor for Licensing and Accreditation
Pilar Dávila / Distance Education Director
Sandra Pedraza / Innovation and Entrepreneurship Director
Armando Soto / Webmaster

Graduate Studies and Research

Sharon A. Cantrell / Dean
Minerva Soto / Student Services Coordinator

General Education Deanship

Félix R. Huertas / Dean
Phillip Murray / Associate Dean
Beatriz Cruz / Director of the Department of Spanish and Modern Languages
Jennet Rodríguez Betancourt / Director Department of English
Juan E. Roque / Director of the Department Humanities and Social Sciences
Aida Liz González Agosto / Coordinator of Mathematics
Sylvia Casillas / Director of the Language Laboratories
Lizabeth Montalvo Juliá / Coordinator of Freshmen Seminar Courses

School of Business and Entrepreneurship

Juan Carlos Sosa / Dean
Litza Meléndez / Associate Dean

Linda S. Miranda / Administrative Director
Sharon Correa / Academic Director
Johanna Acosta / Director of Special Projects
Lillian Hernández / Director of Student Services

School of Education

Israel Rodríguez Rivera / Dean
Brenda Arroyo / Associate Dean
Jorge H. Garófalo / Associate Dean, Physical Education Department
Maritza Oyola / Associate Dean for Student Services
Carmen D. Rodríguez / Administrative Affairs Director

School of Engineering

Héctor Rodríguez / Dean
Rolando García / Associate Dean
Oscar A. Sáenz / Director, Industrial and Management Engineering Department
Juan C. Morales / Director, Mechanical Engineering Department
José L. Colón / Director, Electrical and Computer Engineering Department
Nelson Gómez / Director, Civil Engineering Department
Nelson Martínez / Director, Institute of Engineering Technology
Daisy Román / Administrative Director
Luz Vilches / Director, Engineering Advising Office (EAO) and Student Services

School of Health Sciences

Nydia V. Bou / Dean
Diannie I. Rivera / Associate Dean for Academic Affairs
Nilda I. Boria / Associate Dean for Administrative Affairs
Joannie Ortiz / Administrative Affairs Director
Wanda Rodríguez / Student Services Director
Frank Valentín / Director, Naturopathic Medicine Doctoral Program
María A. Centeno / Director, Health Professions Department
Minerva Mulero / Director, Nursing Department
Kelli M. Killingsworth / Director, Nutrition and Dietetic Department
Héctor Osuna / Director, Veterinary Technology Program
Lilliana Ríos / Director, Speech-Language Services ED

School of Natural Sciences and Technology

Teresa Lipsett-Ruiz / Dean
Ileana González / Acting Associate Dean
María F. Barberena / Director, Department of Biology
José J. Ducongé / Director, Department of Chemistry and Physics
José Sánchez / Director, Department of Mathematics
Eddie Laboy / Coordinator, Doctoral Program
Mayra Cummings / Director, Medical Technology
Sandra Ayala / Laboratory Manager
Luz N. Trinidad / Director of Administrative Affairs
Ivelisse Díaz-Alejandro / Director of Student's Affairs
Ilianex Oquendo / Academic Adviser

School of Social Sciences and Communications

María Del C. Santos / Dean
Tomasita Pabón / Associate Dean, Social Sciences Department
Edward Fankhanel / Associate Dean
María M. Ortiz / Director, Social Work Department
María V. Vera / Director, Communications Department
Jessica Velázquez / Director, Psychological Services Clinic
Rosa M. Rodríguez / Administrative Affairs Director

International School of Design and Architecture

Aurorisa Mateo / Dean
Rosa Musí / Associate Dean for Administrative Affairs
Elizabeth Castrodad / Associate Dean for Academic Affairs
Yazmín M. Crespo / Director, Architecture Department
Cristiano Carciani / Director, Fashion Design Department

School of Professional Studies

Mildred Y. Rivera / Assistant Vice-President and Dean
Viviana Barrabia / Associate Dean
Mabelis Viera / Director, Integrated Services
Jocelyn Gómez / Academic Director

School of Technical Programs

María E. Flores / Dean
Irving Colón / Associate Director
Amarilys Rivera / Academic Affairs Coordinator
Norberto Pagán / Academic Advisor
Charlotte Pérez / Student Services Coordinator
María de los A. Rodríguez / Administrative Services Coordinator

Information Resources

Sarai Lastra / Vice Chancellor of Information Resources and Director Virtual Library
Luis A. Arroyo / Director, Information Technologies
José Medina / Director, Informatics and Telecommunications
Luisa Torres / Director of the Library
Julie Malavé / Director, Administrative Services

Off-Campus Centers

Glenda L. Bermúdez / Director, Off-Campus Center Yabucoa
Juan A. Rosado / Director, Off-Campus Center Cayey
Carmen L. Rivera / Director, Off-Campus Center Isabela
Sigfredo Morales / Director Off-Campus Center Ponce
Ramón E. Díaz / Director Off-Campus Center Barceloneta

Student Affairs

Brunilda Aponte / Vice Chancellor of Student Affairs
Juanita Cruz / Associate Vice Chancellor of Student Affairs
María V. Figueroa / Associate Vice Chancellor of Student Affairs
Samiris Collazo / Assistant Vice Chancellor for Wellness and Quality of Student Life
María Del C. Santos Rodríguez / Assistant Vice Chancellor for Internship and Honor Scholarship Program
Carmen Pulliza / Assistant Vice Chancellor, Career and Placement
Zoraida Ortiz / Registrar
Melba Sánchez / Associate Vice-Chancellor of Admission and Marketing
Carmen J. Rivera López / Director, Financial Aid
Gabriel López / Bursar

Wilnelia Hernández Castro / Director Information Systems
Luz E. Berríos / Nurse, Health Services
Angel Vázquez / Director, Social and Cultural Activities
Eva Merced / Administrative Director
Nilda L. Toledo / Student Services Officer
Diriee Y. Rodríguez / Director, Admissions
Anabelle Solá / Director, Recruitment

Physical Facilities, Operations and Maintenance

Mayra Rodríguez / Manager, Physical Facilities and Operations
Carmen Torres / Acting Assistant Manager of Physical Facilities
Julio Colón / Director, Administrative Services
Carlos R. Centeno / Director, Security
Rubén Monsanto / Maintenance Supervisor

Statement of Legal Control
The Ana G. Méndez University System is a private nonprofit corporation registered under the laws of the Commonwealth of Puerto Rico. Its Board of Directors under the system wide bylaws governs the corporation.

Non-Discrimination Statement
The Ana G. Méndez University System and its institutions do not discriminate on the basis of race, handicap, national or ethnic origin, creed, color, gender, social condition or political, religious, social or trade union beliefs.

LEGISLATIVE BOARDS

The Administrative Council of Universidad del Turabo is the legislative body of the Institution. Its main function is to establish the institutional policy of the University in accordance with the bylaws of the Ana G. Méndez University System. The Administrative Council includes the chancellor, who chairs it, the vice chancellor, the vice chancellor of student affairs, the manager of physical facilities and operations, the deans of the academic divisions, one (1) faculty representatives for each school, two (2) directors representatives of university centers and two (2) student representatives.

The Academic Board recommends the academic policy of the Institution, adopts new academic programs, approves the awarding of degrees and evaluates hiring, contract renewals, promotions, and leaves of absence for faculty members.

The Academic Board consists of the vice chancellor, the library director, nine (9) school associate deans, two (2) student representatives, one (1) faculty representative for each school, and as many elected faculty members as needed to provide for their majority on the board. The chancellor is an ex officio member of the Academic Board.

GRADUATE STUDIES AND RESEARCH

Science and Technology Building
787-743-7979 Ext. 4270
Fax 787- 743-4115
http://ut.suagm.edu

Established in 2003, the Center for Graduate Studies and Research (CGSR) is an administrative unit whose main responsibility is to provide resources and support services for graduate students who wish to pursue doctoral studies. Through workshops, seminars and conferences, the Center contributes to the University's image of academic excellence and leadership. The CGSR also promotes scholarly research among students and faculty.

The CGSR is located in the Science and Technology Building and is directed by the Associate Vice chancellor (AV) for Graduate Studies and Research. The AV interacts with all the UT Schools and their respective coordinators of doctoral programs. In this way, the CGSR and the coordinators work together to ensure that all doctoral students are well attended and supported

MISSION

The CGSR is devoted to the advancement of knowledge through research activities and to the establishment of ideal support conditions for UT doctoral students. The Center also collaborates with the six UT Schools to stimulate and enhance academic and scientific experiences.

VISION

The CGSR is a key facilitation agent that promotes excellence through academic and leadership opportunities for graduate students by encouraging the development of research activities.

SUPPORT SERVICES

The CGSR is actively involved in the recruitment, retention and graduation of doctoral students at UT. To this end, the Center provides assistance from the initial application stages to the completion of a doctoral degree. Hence, the Center supports the following initiatives:

- Academic advising
- Areas for group study
- National and international conferences
- Research a UT recognition program
- Teaching assistants program
- Research programs

- Individualized services for registration and financial aid
- Orientation on the financial aid process
- Detailed information on doctoral programs
- Professional development seminars
- Resource room for doctoral students

Ultimately, the CGSR is a clearinghouse of information and resources to ensure the graduate students' successful completion of an advanced degree while enhancing their personal, social, academic and professional experiences.

RESEARCH INSTITUTES

PUERTO RICO ENERGY CENTER (PREC)

The Puerto Rico Energy Center will be an R&D facility in solid waste disposition and renewable energy. The technological areas of the center are plasma gasification and vitrification, photovoltaic solar cells, and fuel cells. The center will be available for demonstrations of potential applications benefiting municipalities, the pharmaceutical industry, and other private and public partners, helping to promote R&D efforts and business development. It will provide education, awareness, and technical assistance activities on renewable energy, with a particular interest in environmentally friendly solid waste treatments.

Under the leadership of the Dean of the School of Engineering, PREC will concentrate its efforts on the implementation of the project´s first phase activities:

- Construction of new PREC facilities
- Development of Cruise Ship Solid Waste Disposal Prototype
- Establishment of initial research activities related to:
- Residue Composition Analysis
- Hydrogen Production
- Fuel Cell Laboratory activities

ACT GLOBAL

ACT Global is a Technology Accelerator of SUAGM, Inc.d/b/a Universidad del Turabo, Inc. created with the principal goal of generating businesses and ventures by means of providing the technical ecosystem for entrepreneurs to transform their well-conceived ideas into marketable products through the acceleration program **Startup.pr**.
The ecosystem provided by Startup.pr Acceleration Program consists in access to laboratories, highly specialized prototyping equipment, technical support and access to the Schools of Engineering, Natural Sciences and International Design and Architecture, as well as other schools as needed, of Universidad del Turabo providing startups the next level of development and a way to escalate to a global market.

MISSION

Provide technical ecosystem and financial assistance to accelerate innovative and technology-based early stage companies as a contribution to Puerto Rico growth initiatives.

VISION

Be the epicenter of the development of technology-based solutions with global impact in Puerto Rico.

IMPORTANT NOTE:
This catalog contains the major points of the current agreements between the students and Universidad del Turabo. The University limits its agreement to the semester or session in which the student is duly enrolled and for which (s)he has paid the corresponding fee.

ADMISSIONS

GENERAL ADMISSION REQUIREMENTS

Students candidates applying for admission to Universidad del Turabo must meet the following requirements:

1. Graduate from secondary school licensed by the Puerto Rico Council on Education or its equivalent.
2. Have taken the University Admissions and Assessment Tests (PEAU) of College Entrance Examination Board (CEEB) or the placement test in the areas of Spanish, English and Math provided by the University (Associate Degrees).
3. Some Schools may have other specific program requirements. Refer to School's section in the Catalogue for more information. Evidence of complaints with these additional requirements must be submitted to the School to which the student is applying to admission. Visit the following link for more information: http://ut.suagm.edu/es/academia/normas-academicas. (Document available in Spanish).

HIGH SCHOOL STUDENTS

ADMISSION PROCESS AND DOCUMENTATION

High school students in their senior year can submit the admission application and provide evidence of their cumulative grade point average (GPA) (computed at the end of the first semester of the senior year) and their University Admissions and Assessment Tests (PEAU) of College Entrance Examination Board (CEEB), SAT or ACT test results.

Students in their junior year of high school can start an early process by filling in the admission application and providing evidence of their cumulative GPA computed at the end of the second semester of their junior year.

To complete the admissions record process, all applicants must provide the required documentation listed below:

1. Fill and submit the admission application and pay the non-refundable fee.
2. Submit a copy of the University Admissions and Assessment Tests (PEAU) of College Entrance Examination Board {CEEB), SAT or ACT results (if (Institution) was not selected to receive results directly) or take the placement test in the areas of Spanish, English and Mathematics provided by the university.
3. Health and vaccination certification for applicants younger than twenty-one (21) years of age.
4. Submit one of the following as part of the evidence for program-specific requirements:
    a. Students from the public schools system that provide student GPA via an electronic system recognized by the Department of Education of Puerto Rico, will not need to present physical evidence of the transcript. The electronic transcript sent by the school must show the academic GPA computed at the end of the first semester of the senior year of high school, to be evaluated as part of the admission process.
    b. Students from public and private schools that do not provide the electronic service data transfer recognized by the Department of Education of Puerto Rico, must provide an official transcript comprising their high school years up to the first semester of the senior year of high school, to be evaluated as part of the admission process.
5. All candidates must submit one of the following documents as evidence of having completed high school or its equivalent:
    a. Original Certification of graduation
    b. Official document of an institution or agency recognized by the U.S. Department of Education that certifies the equivalency of a high school degree.

Students must present evidence of high school completion or its equivalent before the first day of class or within 20 days after the beginning of classes. The institution may invalidate the student's admission if this requirement is not met. Veterans and beneficiaries must also submit all admission requirements before the first day of class or within 20 days after the beginning of classes.

ADMISSION FORMULA

Some schools applies the Admission Index formula. It is computed using the results of the following areas of the University Admissions and Assessment Tests (PEAU) of College Entrance Examination Board: verbal aptitude, mathematics aptitude and English achievement. The high school grade point average is also considered.

PLACEMENT EXAMS: ENGLISH/SPANISH/MATHEMATICS

1. Incoming first-year students who do not have their test results from the College Board, MUST take the UT placement exams. Information about when and where the tests are offered is provided by the Vice Chancellery of Retention and Student Development.
2. The placement exams are used to assess student performance and proficiency in Spanish, English, and Mathematics. The scores of these tests are used to place students in courses that are appropriately challenging.
3. Students with Advanced Placement College Board Scores of 3 or higher in Spanish, English or Mathematics are exempt from taking the corresponding placement exam and are placed in the subsequent sequential course.
4. If you are a transfer student, and your transcript has been evaluated by your admitting college (School), at the discretion and approval of the Office of the Registrar and the corresponding School, you may receive credit for a particular English/Spanish/Mathematics course that you have taken at another institution. If you are awarded transfer credit, your college (School) will advise you regarding the next English/Spanish/Mathematics course you may need to take.
5. If you are a transfer student who has NOT been given transfer credit for an English/Spanish/Mathematics course, you will need to take the corresponding placement exam.
6. Students who have not taken English/Spanish/Mathematics at the university level, MUST take the UT placement exam(s) before enrolling in any English/Spanish/Mathematics course.

READMISSION

1. Students must apply for readmission if they interrupted their studies and did not attend the university for one semester or longer. (Summer sessions do not count as interruptions.)
2. Students must complete the required number of credits for their **year of study.**

3. Students must comply with the requirements of the study program of their choice as well as other general requirements that may apply.
4. In order to be readmitted, the period of suspension for academic or disciplinary reasons must have elapsed.
5. Candidates for readmission may be required to have an interview with the Admissions Committee. It is comprised of the Vice Chancellor of Student Affairs or his representative, the Director of Admissions, the Vice Chancellor for Wellness, the Registrar, the Vice Chancellor or his representative and the dean of the school. In special cases, the Committee will have the final authority to determine admissions.

TRANSFER STUDENTS

Transfer students are considered for admission if they have followed a course of study in an accredited university and have completed no fewer than 12 credits in the institution from which they proceed. Their grade point average (GPA) must be the institutional minimum requirement. The students must not be under academic or disciplinary sanction in the institution from which they proceed.

In order to be admitted, students wishing to transfer must meet the requirements of the program of their choice.

COURSE VALIDATION

Transfer students have the option of validating courses taken no more than 12 years prior to admission for equivalent courses offered at Universidad del Turabo. The students must have a minimum grade of C in each course.

ADVANCED PLACEMENT TEST

Credit will be granted for the Advanced Placement Tests of the College Entrance Examination Board if the score obtained is 3 or more, on a scale of 1 to 5.

PRE-COLLEGE COURSES

Credit will be granted to students for courses offered by Universidad del Turabo at the high school level. These courses must be in addition to those required for graduation and must be approved with a grade of A, B or C. The various schools will establish the grades required in the courses to be credited.

The Pre-College Program will keep record of the student's progress and will send evidence of the completed courses to the Registrar's Office, after the student is officially admitted to the University. This documentation will become part of the student's file.

RESIDENCE

All transfer students must observe the following rules to obtain residence at the University in order to qualify for graduation:

1. Complete the last (30) thirty credits of their bachelor's degree at Universidad del Turabo, (12) of which must be in their major field of study.
2. Successfully complete the last twelve (12) credits of the associate degree at Universidad del Turabo.
3. Twelve (12) credits of residence (set by each program) will be required of students from Off-Campus Centers.

TRANSIENT STUDENTS

Transient students must be authorized by their own university to take courses at Universidad del Turabo for no longer than two academic semesters.

Universidad del Turabo admits visiting students or auditors. They must apply for admission within the time limit established by the Admissions Office. They must attend their regular courses but will receive no credits or grades. These students are not eligible for financial aid.

Authorization for enrollment of transient students and auditors does not constitute a formal admission into the institution, and it terminates at the end of the academic session for which it was granted. To obtain regular student status, students must comply with the admission requirements in force at the time when the application for admission was filed. All applications are subject to an interview by the Admissions Committee.

INTERNATIONAL STUDENTS

Universidad del Turabo accepts foreign students as permitted by immigration laws. Foreign students are subject to the admission, readmission and transfer requirements established by the Universidad del Turabo.

Online and out of state students are part of international student component for internal purpose. However, online students do not have to comply with the same immigration laws.

The online students do not have to comply with the same immigration laws.

ACADEMIC YEAR

Academic period divided into two semesters and one summer, which in turn can be subdivided into smaller sessions called terms.

EFFECTIVE DATES

Admission or readmission at Universidad del Turabo will be valid for one semester of the academic year, beginning on the date it is granted. Applications that do not include the required documents, or that do not meet all the established requirements, will be considered provisional. If all the documents are not received within 60 days from the first day of class, the institution may invalidate the provisional admission.

Applications forms should be requested from:

UNIVERSIDAD DEL TURABO
ADMISSIONS OFFICE
P O BOX 3030
GURABO PR 00778
TELEPHONE: (787) 746-3009
Or visit web:
http://ut.suagm.edu/es/ut/solicita-admision or
www.solicitaadmision.com

14TUITION AND SPECIAL FEES

Once a year the Office of the Vice President of Financial Affairs publishes a circular letter with information about tuition costs for all academic programs, and special fees for student services at Universidad del Turabo. Upon request, this document is available at the Bursar's Office to students and to anyone in the institution who requests it.

Tuition, fees and service charges must be paid in full during registration or at the time the student requests services. Payments can be made in cash or by check, money order, debit cards or credit cards. Receipts for all transactions must be requested and retained, and presented with any claim or request for adjustment. The Bursar's Office will not accept claims without receipts.

In accordance with established rules and regulations of the institution, the Ana G. Méndez University System may amend standards and tuition fees.

The Deferred Payment Plan is available to parents, tutors or adult students who do not receive financial aid. The recipient will sign a promissory note and payments will be made on or before the specified date on the promissory note. If the University is forced to contract legal or collection services in order to collect, the student will pay the legal and/or agency fees.

CLEAR STATEMENT

Students with an outstanding debt balance will not be allowed to take final examinations until such balance is paid in full. Upon receipt of payment, the Bursar's Office will issue a Clear Statement, which must be presented by the student at each examination. Students who do not comply with this requirement will receive a grade of Incomplete.

ADJUSTMENTS AND REFUNDS

Active students who request total withdrawal before 60% of the registration period has ended will receive an adjustment in the fees and assigned funds in accordance with federal regulations for programs with Title IV funds. In addition, students identified as NA (not attending) a course will be charged a 25% fee for each course in which they enrolled. These fees will not be covered by federal funds. During the add/drop course adjustment period, students can add or drop sections without additional cost.

FINANCIAL AID

Universidad del Turabo makes every effort to help its students obtain government financial aid for those who are unable to begin or continue their university education without such aid. There are three categories of financial aid: scholarships, loans and work-study programs.

SCHOLARSHIPS

Scholarships are granted according to the educational and financial needs of the student. Only undergraduate students are eligible to receive funds through Pell Grants. However, a Free Application for Federal Student Aid (FAFSA) application is needed to determine the student's eligibility for other federal aid programs.

STATE FUNDS

The Council of Higher Education of Puerto Rico provides funds to supplement the cost of graduate education. This aid applies to all students who are eligible according to the student's eligibility index provided by the FAFSA evaluation.

FEDERAL DIRECT LOANS

The Financial Aid Office will recommend and process the loan directly to the U.S. Department of Education in its electronic form. This loan must be repaid in cash; the repayment should begin six (6) months after the student graduates or ceases to study. The Federal Government will pay the interest while the student is enrolled in a recognized post-secondary institution. Borrowers should check the interest rate on their promissory note. The variable rates do not exceed 8.25 percent.

WORK-STUDY PROGRAM

This program provides jobs for undergraduate and graduate students. The Financial Aid Office assigns a specific amount of hours that the student works on campus.

FINANCIAL AID APPLICATION AND RENEWAL

Students who have participated in the financial aid program during the first term do not need to renew their financial aid program during the same academic year if they comply with the requirements for continuing in the program. Financial aid must be requested through the FAFSA form on the Web at: www.fafasaontheweb.com or visit the financial aid office

UNIVERSIDAD DEL TURABO
FINANCIAL AID
P O BOX 3030
GURABO, PUERTO RICO 00778
Or vistit web:
http://ut.suagm.edu/es

The FAFSA includes the list of requirements and documentation necessary to apply for financial aid.

CREDIT HOUR DEFINITION

At Universidad del Turabo (UT) course work is measured by means of a credit hour unit, which reflects the amount of time spent in class, and the amount of outside preparatory work expected for the class. Thus, looking for consistency and transferability within and between institutions, UT conforms to commonly accepted practices in higher education. The Institution adopts and apply a policy on credit-hours consistent with the US Department of Education definition of "credit hour"as:

"…An amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that reasonably approximates not less than:

(1) One hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work for approximately fifteen weeks for one semester or trimester hour of credit, or ten to twelve weeks for one quarter hour of credit, or the equivalent amount of work over a different amount of time; or,

(2) At least an equivalent amount of work as required in paragraph (1) of this definition for other academic activities as established by the institution, including laboratory work, internships, practica, studio work, and other academic work leading to the award of credit hours."

IMPORTANT NOTE
The above-mentioned aid is conditioned to the availability of the respective federal, state and institutional funds. It is the student's responsibility to take the steps necessary to obtain financial aid from the government. Such aid is directed to the student as a citizen and not necessarily to the University. Universidad del Turabo is a private, secular, nonprofit institution, and is independent of any government.

The institution fully complies with the Privacy Rights of Parents and Students Act of 1974 (Title IV of the U.S. Public Law 90-247), as amended, which specifically governs access to records maintained by institutions to which funds are made available under any federal program for which the U.S.

Commission of Education has administrative responsibility, and the release of such records. Such institutions must give parents of students access to official records that are directly related to the students and an opportunity for a hearing to challenge such records on the grounds that they are inaccurate, misleading or otherwise inappropriate.

Institutions must obtain the written consent of parents before releasing or relinquishing data with personal identification from the records, except to certain specified parties. (Parents and students must be notified of these rights transfer to students at certain points, and an office and review board has been designated at the federal office of Health, Education and Welfare to investigate and decide on complaints and violations of this law.

*In order to receive financial aid, students must comply with the Satisfactory Academic Progress Policy.

ACADEMIC REGULATIONS

SATISFACTORY ACADEMIC PROGRESS (SAP) POLICY

Satisfactory Academic Progress (SAP) measures the academic progress of the student towards the attainment of an academic credential. Federal regulations require that all students who receive Title IV funds as part of their financial aid package maintain SAP. The SAP policy applies to all students within categories, e.g., full-time, part-time, undergraduate, and graduate students.

The evaluation criteria for SAP include a qualitative and quantitative component.

The qualitative measure is based on the cumulative grade point average (GPA). The quantitative measure is based on the number of credit hours the student attempts and earns. This calculation is completed by dividing the cumulative number of credit hours a student successfully earns by the total number of credit hours the student attempts over the student's academic career in a particular program at the Institution. Students are also expected to complete their program within 150 percent (%) of the length of the program as measured in credits.

MAINTAINING SATISFACTORY ACADEMIC PROGRESS

The academic progress of students enrolled in associates, bachelors, masters and doctorate degree programs will be assessed at the end of every two (2) semesters. The academic progress of students enrolled in technical and postgraduate certificate programs will be assessed at the end of each semester. The Registrar's Office will notify students in writing, through e-mail, of their academic status.

Students are prohibited from receiving federal student financial aid after attempting 150% of the number of credits required for their academic program. This calculation includes all attempted credits, including transfer credits, related to the student's academic program.

To maintain good standing, students must comply with the following:

QUALITATIVE COMPONENT

The Institution establishes specific minimum GPA requirements by program level (i.e., certificate, associate, bachelor, master and doctorate). The minimum GPA increases as credits attempted increase. Students enrolled in a program of more than two academic years must have a GPA of at least a "C" or its equivalent. Regardless of the student's enrollment status, the Institution considers that a student is at the end of his/her second academic year after two calendar years of attendance (i.e. four semesters, excluding the summer term).

Refer to Appendix, Satisfactory Academic Progress Tables, for the qualitative components per program level.

QUANTITATIVE COMPONENT

The Institution uses a graduated completion percentage by program level. The student must earn the minimum percentage of attempted credits depending on the program level and academic year in which the student is enrolled.

All credits attempted and earned, including transfer credits that count towards the program of study of the student, are considered in the calculation.

The student must complete the program within 150% of the length of the program of study to be eligible for Title IV funds. For example, students in a bachelor's degree program must complete 120 credits and may attempt up to 180 credits (150% x 120 = 60; 60 + 120 = 180).

Refer to Appendix, Satisfactory Academic Progress Tables, for the quantitative components per program level.

If a student wants to enroll in a different academic program, the student must request approval from the Dean of the School. Even though only attempted and earned credits from the student's current program of enrollment are included in the quantitative measure and only the grades for courses from the student's current program of enrollment are included in the qualitative measure, students are

encouraged to carefully consider program changes because federal regulations limit total lifetime financial aid eligibility.

Students who discontinue their studies and subsequently apply for readmission will be readmitted under the current SAP policy and will have the same SAP status that resulted as of the end of the last term attended. Students applying for readmission must fill and submit the admission application and pay the non-refundable fee. Admission Office will evaluate the student by SAP. If the student does not meet SAP, the University will determine if he/she may be readmitted, provided an appeal has been approved.

Students requesting admission into a new academic program after having completed his/her prior program of study will have to fill and submit the admission application and begin the new program with a new SAP history, unless the student transfers credits into the new academic program in which case those transfer credits will be considered when measuring SAP.

Impact of Course Repetitions, Withdrawals, Incompletes and Transfers on Satisfactory Academic Progress

- **Course Repetitions** - Federal regulations limit repetition of courses that can be paid with Title IV financial aid funds. Please check with the Financial Aid Office if you are not sure whether a course can be repeated with financial aid. If a student repeats a course, only the highest grade earned will be included in the student's cumulative GPA. However, each attempt at the course will count as credits attempted.

- **Withdrawals** - If a student withdraws from a course, the credits for the course count toward the determination of credit hours attempted but will not be considered in the cumulative GPA.

- **Incomplete Courses** - If a student has an incomplete in a course, the credits for the course count towards the determination of credit hours attempted. The course will not be considered in the cumulative GPA until a grade is assigned.

- **Transfer Credits** - If a student transfers in credits from another institution, the accepted credits for the courses count toward the determination of credit hours attempted and earned, but will not be considered in the cumulative GPA. Only those transfer credits that apply to the student's program of enrollment at the Institution will count as credits attempted and earned. Refer to the Institution's catalog for requirements on accepted transfer credits from another institution.

REMEDIAL AND DEVELOPMENTAL COURSES

Financial aid recipients may receive aid for a maximum of 30 semester credit hours in developmental coursework. Students enrolled in remedial courses are expected to receive passing grades in those courses in order to progress into the next term. Remedial courses count towards the determination of credit hours attempted and earned and will be considered in the cumulative GPA when determining SAP.

Financial Aid Warning and Failure to Meet Satisfactory Academic Progress

Students enrolled in technical and postgraduate certificate programs, for which SAP is evaluated at the end of each semester, will be placed on financial aid warning status for the next semester attended as a consequence of not making satisfactory progress. The Institution uses this status without appeal or any other action by the student. The Registrar's Office will notify the student in writing, through e-mail, of the financial aid warning status and that financial aid eligibility is retained during this period.

The student must meet SAP as of the next evaluation point (by the end of the next semester attended) in order to receive financial aid in future terms. Students who did not meet SAP as of the next evaluation point become ineligible for federal financial aid funds and may continue their studies at the Institution at their own cost. If the student believes there are extenuating circumstances associated with the student's inability to meet SAP, he/she may appeal his/her termination status to the Appeals Committee. See section titled Financial Aid Ineligibility and Appeal Procedures below.

SCHOLARSHIP AND GRANT RECIPIENTS

Other scholarship and grant programs may not allow for a financial aid warning semester. In these cases, failure to meet SAP in any given term may result in the termination of scholarship or grant funds. Please refer to your scholarship or grant information materials or contact the Financial Aid Office at 787 743-7979 extension 2352.

FINANCIAL AID INELIGIBILITY AND APPEAL PROCEDURES

A student will be advised in writing, through e-mail, when he/she has lost financial aid eligibility due to the failure to meet SAP and will be advised of the process for re-establishing financial aid eligibility. Students who have lost eligibility for financial aid based on a failure to meet SAP standards may appeal their loss of eligibility if they have suffered extenuating circumstances, such as the following:

- Student's injury or illness,
- Death of a relative, or
- Other special circumstances.

Students may not use financial aid to make retroactive tuition and fee(s) payments.

As part of the request for an appeal, the student must present how the critical situation prevented him/her from meeting the academic progress. The student must also describe how his/her situation has changed in order to allow the student to meet the SAP standards at the next evaluation. As part of the appeal, the student must submit the following:

- SAP Appeal Form (please refer to the form for further instructions)
- Signed dated letter
- Supporting documentation (third-party documentation may be required as appropriate)

In order for the appeal to be considered, the student must submit the SAP appeal documentation to the Institution's Professional Counselor, who will submit the documentation to the Appeals Committee. The Appeals Committee will evaluate the merits of the appeal by reviewing the documentation submitted as well as the student's previous academic performance at the Institution. The Appeals Committee may request additional information or documentation, as needed. The Vice Chancellor for Student Affairs will notify the student in writing, through e-mail, the determination made by the Appeals Committee.

The student must submit an appeal to the institution in writing after the receipt of the failure to meet SAP notification. The Institution will have ten (10) calendar days for the evaluation process after receiving the student's appeal documentation.

FINANCIAL AID REINSTATEMENT

If the Institution approves a SAP appeal, the student will be placed on financial aid probation for the next semester attended. The student may also be placed on an academic plan. The Institution will advise the student in writing of the progress the student must achieve to ensure he/she meets the SAP policy or the requirements of the academic plan by the end of the next semester attended. Students will be eligible for financial aid while on financial aid probation.

After the end of the financial aid probation semester, the Institution will measure the student's academic progress. The student will retain financial aid eligibility only if the student meets published minimum SAP standards or meets the requirements of the academic plan at the end of the semester of financial aid probation. If the student does not comply with SAP or meets the requirements of the academic plan, he/she is not eligible for financial aid funds, unless the student successfully appeals or the student reaches satisfactory academic progress.

Any student who loses financial aid eligibility due to failure to meet SAP and attends school at his/her own cost will regain financial aid eligibility in the academic semester following the semester in which the student meets the minimum SAP standards. Students may not use financial aid to make retroactive tuition and fee(s) payments.

REGISTRATION FOR COURSES

a. The Vice Chancellor of Student Affairs establishes the period for the registration process and includes the enrollment period in the calendar.
b. Students are required to register during the period specified in the calendar.
c. The official notification of admission is required to begin the enrollment process.
d. For registration to be official, the bursar must validate the student's program-receipt.

Students are also required to register during the assigned calendar period, for day or evening, sessions, and this information will become part of their academic record. The institution has the right to change the time, the calendar or the classrooms of announced courses and to close or eliminate sections or courses from its academic offerings.

The Academic Calendar is published on our website at: http://ut.suagm.edu/es/academia/calendario-academico.

CLASSIFICATION OF STUDENTS

Full-time regular students are those who have registered for programs of no less than twelve (12) credit hours and are degree-seeking candidates. Half-time students are those with an academic workload of six (6) to eight (8) credits hours and are degree-seeking candidates. Less than half-time students are those with an academic workload of five (5) credit hours or less and are degree-seeking candidates.

Three quarter students are those with an academic workload of nine (9) to eleven (11) credit hours and are degree-seeking candidates.

ACADEMIC LOAD

Academic load will not exceed twelve (12) credits per term for students with a GPA of 2.00 or less, and eighteen (18) credits per term for students with a GPA of 2.01 to 3.00. An academic load or more than twenty-one (21) credits will require prior approval by the dean of the school.

For summer sessions, academic load will not exceed twelve (12) credits, distributed over two (2) sessions. An academic load or more than twelve (12) credits will require prior approval by the dean of the school and a referral by a counselor.

CENSUS

The Institution is not required by any state or regional accrediting agency to take attendance. Nevertheless, a census is made during the first weeks of each semester to determine whether the student attended at least once during the period of enrollment. This census is made for reporting requirements only.

Nevertheless, professors may take into consideration the student's attendance when grading and should explain the possible impact of absences on the student's final grade, if any. The student is also responsible for all material covered during the course, even if he misses classes during the semester. Thus, attendance is strongly recommended to better retain the student and facilitate achievement of his/her academic goals.

GRADING SYSTEM

The Office of the Registrar distributes final grades after the end of each term. Students are graded according to the following system of letters and percentage values.

A	(90-100)	=	excellent
B	(80-89)	=	good
C	(70-79)	=	average
D	(60-69)	=	deficient
F	(0-59)	=	failure

A – 4 grade points per credit hour
B – 3 grade points per credit hour
C – 2 grade points per credit hour
D – 1 grade point per credit hour
F – O grade points per credit hour

In special cases the following grading system will be used:

W - Official withdrawal
I - Incomplete Work
IP - Incomplete, in progress
P - Passing grade – Grades of P are not counted toward grade point average.
NP - Failure
NR - Not reported
* - Repeated course
WA - Administrative withdrawal
WF - Stop attending the course and have not submitted an official withdrawal
WN - Non Attendance – enrolled but did not attend classes.
AU – Audit course
T – Transfer credit

GRADE CHANGES

Students who believe that there is an error in one or more grades should notify the Office of the Registrar within the first thirty (30) calendar days of the beginning of the next session. Students who do not receive their grades at the end of any semester should immediately contact the Office of the Registrar.

An instructor may change a previously assigned grade by processing an official change of grade form in the Registrar's Office. The instructor must request the grade change form, cite the reason for changing the grade, and submit it to the school or program dean(s) for approval. All grade changes must be submitted to the Registrar's Office no later than the last day of class of the following semester.

GRADE APPEALS

If the student feels that he or she has not been graded fairly, (s)he should first consult the professor. If this proves unsatisfactory, the student should then consult the dean of the school or program. If still unsatisfied, the student may consult the Vice Chancellor and submit an official grade appeal to the Registrar's Office. A committee hearing will be scheduled.

INCOMPLETE "I" GRADE

The student will receive a provisional grade of INCOMPLETE only in the case of a justifiable absence from the final examination and if there are a minimum of three partial grades required in the course.

The opportunity to make up the examination or final project will be offered only to those students who have a chance of obtaining a minimum final grade of "D".

It will be the responsibility of the student in question to make the necessary arrangements with the professor or dean of the corresponding area to determine the final project and to change the INCOMPLETE.

The INCOMPLETE (I) status can be changed if the student completes the required work within the first thirty (30) days of the next academic session, in accordance with the established dates of the academic calendar.

The student who, due to the INCOMPLETE received in one or more courses, does not demonstrate academic progress will recuperate financial aid once the INCOMPLETE is removed in accordance with institutional norms, providing that this occurs within the deadline established by the federal government for assigning such aid has not elapsed.

For the purpose of evaluating a student's satisfactory academic progress at the end of the academic year, the (I) will be considered. After the removal of the Incomplete (I), he or she can appeal the institutional decision regarding academic standing.

REPEATING COURSES

Students may repeat a course in order to improve their academic average. Credit will be given for the higher grade, which will be used to compute the grade point average. If the grade in the second attempt is the same as the first, only one will be used to calculate the cumulative average.

a. Students who wish to repeat a course may do so. However, they **must** repeat all courses required for graduation where a D, F, W, or WF grade was obtained.
b. The institution will allow students who earned a C, D, F, W or WF, WN in a course, to receive financial aid to repeat the course provided that 150% of the intended courses have not been exceeded.
c. Students who repeat a course will receive the higher grade.
d. If the grade obtained in a repeated course is the same as the previous grade, it will count for the cumulative average but will count only once for the graduation GPA.
e. With respect to practicum courses, the student will have only two opportunities to repeat the course pending the recommendations and approval of the program dean and practicum supervisor.

A student will not be able to repeat the course until a grade has been posted.

WITHDRAWALS

Students wishing to officially withdraw from a course or from the institution must file an application with the Office of the Registrar within the period established in the academic calendar. A reduction in course workload may jeopardize the student's financial and/or veteran's benefits. The academic standing of the student will be affected by partial or full withdrawals from the institution so long as the withdrawal is carried out before the end of the period specified by the institution for tuition refund eligibility. In the case of full withdrawal from the institution, the student will be considered not to have studied that semester.

Dropping courses or withdrawing from the institution after the end of the above-mentioned specific period will affect the academic standing of the student. The student will be classified in the category in which he or she falls at the end of the period for withdrawal eligible for refund of registration fees.

CHANGES IN THE PROGRAM OF STUDIES

Students can apply for a reclassification in a program or major if they comply with the following:

1. Have an interview with the school dean
2. Apply for reclassification at the Office of the Registrar.

Students can apply for only one reclassification during a semester.

The enrolled credits and the cumulative average from student's previous program will be applied for the programs into which the students have been reclassified, for the purposes of the Satisfactory Academic Progress.

Students in Technical/Professional Programs who wish to be reclassified into undergraduate programs should fulfill graduation requirements and apply for graduation.

The admission criteria will consist of the grade point average required for graduation and the grade point average required by the school or program to which the student is applying. In addition, the dean of the school which will admit the student will determine which courses will be accepted as valid.

All enrolled credits and the cumulative average of the previous program will be counted for the purposes of the Satisfactory Progress norm of the program into which the student has been reclassified.

STANDARDS FOR ACADEMIC PROGRESS

There are three categories of regular students according to their grade point average and number of courses completed: students with excellent achievement; students with satisfactory achievement; and students on probation. Students with a satisfactory academic progress are those with a grade point average equal to or higher than the established retention index and who satisfy the percentage of approved credit hours established by the academic norms.

At the end of each academic year, the Registrar will determine the grade point average (GPA) and the credit hours required of each student per academic year. This information will be measured against the established retention standards in order to determine the academic status of the student.

ACADEMIC PROBATION

Students whose academic achievement is below the established retention index or who do not complete the percent of approved credit hours required according to regulations will be placed on academic probation for one (1) year. During this period the students will not be eligible for financial. Aid. The student request an appeal. The student's appeal will be reviewed by a committee. For students of Technical Programs, the probation period will be for one (1) semester.

Upon completion of the probation period, students must meet the required percentage of credit hours and grade point average as established by their academic degree program.

For percentage of credits required see Appendix.

ACADEMIC SUSPENSIONS

Students will receive a one (1) year academic suspension if the cumulative academic index is lower than the retention index, or if they have not met the percentage of required credit hours upon completion of their probation period.

The University will not accept courses, diplomas or degrees earned by a student during the academic suspension period.

Students who wish to be readmitted upon completion of their academic suspension period must meet the current university readmission requirements.

Students who interrupt their studies or program during the probation period will still be considered on probation during the readmission process.

Readmitted students who have completed their one (1) year suspension period will be evaluated by the Admissions Committee of their academic program. Upon readmission, students will be placed on probation for a second period.

If a student does not meet the required retention index and the percentage of approved credit hours during the second probation period, he or she will be suspended academically for a maximum period of two (2) years.

The institution may suspend a student on recommendation of the Disciplinary Committee or the Vice Chancellor of Student Affairs, following the dispositions of the Student Regulations available in the Students' Rights and Responsibilities Manual.

Under extraordinary conditions, the Academic Suspension Appeals Committee may approve an additional probation period of one (1) year if a student is able to complete all the graduation requirements within that academic year.

APPEALS

A student may appeal an institutional decision regarding satisfactory academic progress, if under extenuating or crisis circumstances he or she was not able to meet the requirements or conditions established by the University.

The University will consider the following crisis or extenuating circumstances to accept a student's appeal and to grant an exemption from the Academic Progress Policies: illness of the student or a relative, economic crisis due to illness affecting the a head of household, natural disasters, divorce, death in the immediate family, family problems, legal circumstances, and justified changes in academic objectives which cause an impact on the student's academic progress.

APPEALS COMMITTEE

The Appeals Committee will be composed of one representative from each of the following offices: Dean of the School, Registrar, and Vice Chancellor for Student Affairs or designated representatives.

APPEALS APPLICATION

a. Students who meet any of the academic progress appeals criteria must submit all the necessary documentation to justify their request.
b. If a student requests an appeal based on a mathematical or calculation error, and it is corrected by the Office of the Registrar, he or she will not go through the full Appeals process.

REINSTATEMENT OF FINANCIAL AID

If a student's appeal is accepted by the Appeals Committee, he or she will be eligible to receive financial aid as long as he or she meets the federal financial aid deadlines and guidelines.

Appeals decisions are issued in writing by the Office of the Vice Chancellor for Student Affairs. This communication is issued by the Office of Financial Aid to reinstate a student's financial aid package.

If a student meets the conditions regarding his or her academic progress or those related to any academic sanction, he or she will be eligible to receive financial aid during the following enrollment period.

STUDENTS RIGHTS AND RESPONSIBILITIES

A Students' Rights and Responsibilities Manual, available to all students, sets forth the rights of students, along with corresponding responsibilities. This document also addresses issues associated with the relationship between the student and the University. It provides information on protection in academic pursuit and privacy of records; sets forth all the conditions for responsible behavior on the campus; lists the various appeal and grievance procedures available to students; and includes a section on student discipline with control and discipline of college students. This document complies with relevant federal regulations such as the awarding of financial aid, protection of privacy of records, and equal access/equal opportunity. For more information visit the website at http://ut.suagm.edu/sites/default/files/uploads/Asuntos-Est/srtk/REGLAMENTO-ESTUDIANTE-2016.PDF (Available only in Spanish).

FAMILY RIGHTS AND PRIVACY ACT INFORMATION STATEMENT

Universidad del Turabo has a longstanding commitment to protect students' rights and privacy of information. This commitment will continue as a matter of University practice. The University complies with the provisions of the federal Family Rights and Privacy Act. These federal and state requirements relate to accessibility and confidentiality, provide pertinent and detailed information concerning classification of student records, and access and release provisions.

University procedures are available to students, faculty, administration, and staff in the Office of the Vice Chancellor of Students Affairs, as well as in other offices and departments of the campus. In addition, the complete procedures are published in the Student Manual.

RELEASE OF STUDENT INFORMATION

In accordance with, FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT (20 U.S.C. 1232g; 34CFR Part 99), students at Universidad del Turabo have the right to inspect educational records and to correct such records as warranted. The institution protects students from release of information for inspection and review unless he or she waives this right. The parent(s) of U.S.C.S.s. 152 Internal Revenue Code also has the right to inspect records, which are maintained by the University on behalf on the student.

There are two distinct categories of records: (1) directory information records, and (2) limited access records.

1. Directory information, which may be made public, includes the student's name, last known address, telephone number, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended by the student. The office of the Vice Chancellor of Student Affairs will only release this information after the petitioner has demonstrated a legitimate need to have such information. Students who do not wish release of "directory information" must complete a statement in the Office of the Registrar no later than the last day of each term; otherwise, directory information may be disclosed by the University for legitimate purposes.

Limited access records pertain to the permanent academic records of the student, disciplinary records, financial information, and testing data. This category also includes all records maintained officially by the institution which do not come under the categories of directory information, or sole possession records. The institution will not release information in limited access records unless it has the written permission of the student or parent.

GRADUATION REQUIREMENTS

Undergraduate students of Universidad del Turabo will be eligible to receive academic degrees after meeting the following requirements and procedures:

1. Students must apply for graduation at the Registrar's Office during the period established in the academic calendar.
2. Completion of the courses required for the degree as set down by the institution.
3. Completion of the number of credit hours required for the degree with a minimum grade point average of 2.00 for most programs. For specific information about a particular academic program, must communicate with the School.
4. To compute the grade point average for graduation, only successfully completed courses which were requirements for the degree or certificate will be considered.
5. All students who enter Universidad del Turabo will be subject to the graduation requirements in force during the year they were admitted. Nevertheless, if the curriculum was modified, the student can choose to graduate under the new curriculum, but not by a combination of both.
6. Transfer students must complete at Universidad del Turabo at least the last thirty (30) credit hours of a bachelor's degree and the last twelve (12) credit hours of an associate degree. The student must complete the last twelve (12) credits of his/her major at Universidad del Turabo.

Students must also settle any debts with the institution. No document certifying graduation will be given until documentation has been presented that there are no outstanding debts.

All students applying for readmission will be subject to the requirements for graduation in effect during the year they are readmitted.

Commencement exercises will be held once a year, at the end of the second academic semester. Students who meet graduation requirements at the end of any term or summer session may apply to the Office of the Registrar for a certification to that effect

GRADUATION WITH HONORS

Students are eligible for the following honor designations according to their cumulative grade point average:

Certificates

Honors	Average of 3.75 to 3.89
High Honors	Average of 3.90 to 4.00

Transfer students may graduate with honors if they obtain a minimum of 20 credits and an average of 3.75 or higher.

Associate Degrees

Cum Laude	Average of 3.50 to 3.69
Magna Cum Laude	Average of 3.70 to 3.89
Summa Cum Laude	Average of 3.90 to 4.00

Transfer students may graduate with honors if they obtain a grade point average of 3.50 or higher in a minimum of 60 credits at Universidad del Turabo.

COURSE VALIDITY

Credits earned through courses taken at Universidad del Turabo or at an accredited institution will be valid for a maximum of 8 years for technical programs and associates degree, and 12 years for bachelor degrees. After that period the credits will lapse.

STUDENT SERVICES

Universidad del Turabo improves and advances the student experience by streamlining its student services into one centralized location, the Integrated Student Services Center (CISE, from its Spanish acronym). The purpose of this Center is to provide competent professional assistance in two areas: (1) Enrollment management services and (2) Academic and personal support services. The Vice Chancellor of Student Affairs oversees the development and growth of these areas.

ENROLLMENT MANAGEMENT SERVICES

The **Office of Marketing and Recruitment** recruits new students, transfers and readmissions. It disseminates information on UT academic offerings, strengths and services through various promotion and recruitment activities. It coordinates and offers orientation activities to recruit students for undergraduate, graduate and doctoral programs by means of integrated campaigns. The Office develops year-round activities of recruitment with key personnel of the schools.

The **Admission Office** processes admission requests and admits students within the parameters established by each school. It also analyzes documentation and maintains communication with the student on the status of his/her request for admission. The Office coordinates the process and admission of prospective students for the different schools.

The **Financial Aid Office** offers financial aid orientation. It also analyzes documentation and assigns state, federal and institutional funds. Among others essential functions, it also administers and coordinates Title IV programs and processes the funds of proposals, athletic, administrative and honor scholarships.

The **Bursar** is responsible for applying the fee policies and administering the payment plans that guarantee institutional incomes. This officer notifies and monitors the compliance of the fiscal policy established by the Vice Presidency of Financial Affairs, establishes the process of validation of registration, administers the application of federal funds refund policies and registers the private and public contracts of agencies. It also applies refund processes and the emission of checks to students, registers payments and maintains the collection system of the students' accounts.

The **Office of the Registrar**, in addition to handling student registration each term, provides various services for students. This office provides transcripts of students' academic records, verifies and certifies enrollment status, mails final grade reports, processes grade changes, orders and issues diplomas, processes changes in name, address, and telephone number.

ACADEMIC AND PERSONAL SUPPORT SERVICES

These services are provided in a variety of forms and settings, including individual counseling and educational groups, workshops, seminars, formal classes, as well as the traditional one-on-one tutorial sessions. The Center's staff has been professionally trained and they are committed to helping students to make the most of their university experience. All services are provided on a strictly confidential basis, and respect the individuality of each student.

Counseling Services are available to students with educational, personal, and decision-making concerns. A wide variety of programs, workshops, counseling opportunities and informational materials are provided to help Turabo students meet the challenges of university programs and experiences. There are individual counseling and testing services for occupational and educational assessment. These services are offered by two units, each targeting different needs and special populations: (1) Quality of Life and Student Well-Being Services and (2) Student Development and Retention Services. These services are offered from 8:00 am to 8:00 pm, Monday through Thursday, 8:00 to 5:00 pm on Fridays and from 9:00 to 1:00 on Saturdays.

The **Quality of Life and Student Well-Being Office** designs, develops, and promotes an extensive system of programs, services and activities that facilitate the integration of multidisciplinary resources to create an atmosphere of respect, welfare and quality of life. The office promotes an ecological model of health, which encourages healthy life styles through activities related to awareness and education on topics such as violence prevention and the use of drugs, alcohol, and cigarettes. The Office encompasses, counseling and multidisciplinary services, a health services program, an education and prevention program (PREVEA), a community connection program, volunteer projects and student organization support. It also serves as a resource center for Internship and practicum students.

In addition, this office coordinates the "Easy Access" Program, which offers special services for disabled students. These services include: parking, educational goal planning, tutoring and other student needs. The students should register with the program at the beginning of their admission process.

The **Student Development and Retention Services Office** is responsible for promoting the integration and adjustment of new students. It articulates the administration of diagnostic tests and carries out the academic orientation and counseling of first and second year students. The Office articulates projects for the improvement of the academic performance and retention in association with the schools and off-campus centers. Individual and group counseling services, tutoring, extra-curricular activities and peer support groups are offered to improve new students' adjustment processes to university life.

Academic Development and Support Services are available through two complementary programs of the Student Development and Retention Services Office. Their services are developed through funds awarded by the federal Department of Education and by other institutional funds. The Complementary Educational Services Program and the Supplementary Instruction Program promote support services for students with academic difficulties through tutoring, mentorships and supplementary instructional activities.

Career and Placement Services are offered by the Office of the Assistant Vice Chancellor of Career and Placement. This office is responsible for satisfying the employment needs of students, alumni and community members and for improving their employment skills, increasing productivity and competences, thus bringing about the client's effective

placement. The office functions as a "one-stop" career center and through diverse alliances with the government's Employment Center (Consortium Caguas-Guayama), integrated services are offered such as counseling, vocational testing, evaluation of employment skills, preparation of resumes and letters of presentation, referrals to governmental agencies and access to Puerto Rico's Department of Labor updated employment offerings through a technological laboratory of resources.

To assist students in career planning, a career reference library is provided with the center's printed, audio and videotape materials about specific occupations, skills, and requirements for jobs, educational and career matters. The computerized occupational information system provides current educational, and labor market requirements, skills specification and other information to be used in the decision-making process. Consulting services for student, faculty, administration and community members are offered through this unit. An active job placement assistance program maintains continuous communication with employers. A computer database of prospective employers is in use. Students may register for part-time and full-time jobs or seasonal employment while pursuing their academic programs. Vocational counseling services are also offered to high school students from nearby communities.

The services are sponsored by institutional funds and with funds from two federal proposals: Hispanic-Serving Institutions Assisting Communities (HSIAC) Program and AmeriCorps Vista.

The **Scholarship and Internship Program** provides the opportunity for active students to request special scholarships and permits students to participate in academic-professional and research opportunities in different companies and educational institutions globally. The activities promoted by this office complement the student's academic development and allow the development of professional abilities and personal skills to be integrated successfully in the work force. It also assists talented high school students in completing their university studies in the SUAGM. This program is funded by corporate, private, public, and institutional funds.

HEALTH SERVICES

Services are located in the CISE building. The health services staff consists of a part-time physician and a registered nurse. Their primary purpose is to provide students with emergency and ambulatory services. The student health services stress the concept of well-being and preventive medicine. Health education and counseling are available as well as treatment for medical problems. The staff is on duty Monday through Thursday from 8:00 a.m. to 8:30 p.m., Friday from 8:00 a.m. to 5:00 p.m. and Saturday from 8:00 a.m. – 12:00 p.m., and is available for emergencies, first aid, referral sources and medical counseling. Basic medical care is provided, but students are ultimately responsible for making arrangements for their own complete health care.

SERVICES FOR DISABLED STUDENTS

Federal and state regulations guarantee disabled students equal opportunity in post-secondary education. The university has created special support services to assist disabled students. These services include, but are not limited to, assistance in registration, counseling, financial aid, readers for the blind, interpreters for the deaf, class notes, as well as individualized classes and/or tutoring. Transportation services are available through a special partnership between Universidad del Turabo and the government's Department of Vocational Rehabilitation. Services are coordinated in the Quality of Life and Student Well-Being Office.

ARMY, AIR FORCE (ROTC)

A formal agreement has been established between Universidad del Turabo and University of Puerto Rico for cross-enrollment of students in the Army Reserve Officers Training Corps (ROTC) and the Air Force Training Corps.

Students from Universidad del Turabo are authorized to enroll and attend classes in the ROTC Program at the University of Puerto Rico. Those courses will be considered as Universidad del Turabo resident courses. Credit will be granted and students will be entered in the official academic record.

Students will not be charged for courses taken in the ROTC Program. The United States Army and Air force through the University of Puerto Rico will provide ROTC textbooks, military type equipment, uniforms and military training. Students will have equal opportunity to compete for two and three year scholarships on a nationally competitive basis.

Semester credit hours for ROTC course are as follow (Military Science-MS)

MSI 2 credit hours (Fall Semester)
(1 hour classroom; 1 hour Leadership Lab)

MSI 2 credit hours (Spring Semester)
(1 hour classroom; 1 hour Leadership Lab)
MSII 3 credit hours (Fall Semester)
(2 hours classroom; 1 hour Leadership Lab)

MSII 3 credit hours (Spring Semester)

(2 hours classroom; 1 hour Leadership Lab)

MSIII 4 credit hours (Fall Semester)
(3 hours classroom; 1 hour Leadership Lab)

MSIII 4 credit hours (Spring Semester)
(3 hours classroom; 1 hour Leadership Lab)

MSIV 4 credit hours (Fall Semester)
(3 hours classroom; 1 hour Leadership Lab)

MS 400-01 3 credit hours (Advanced Camp, Fort Riley, Kansas)

MS 300-01 2 credit hours (Basic Camp, Fort Knox, Kentucky)

AS 100 2 credit hours (Fall & Spring)
(1 hour classroom; 1 hour Semester Leadership Lab)

AS 200 2 credit hours (Fall & Spring)
(1 hour classroom; 1 hour Semester Leadership Lab)

AS 300 4 credit hours (Fall & Spring)
(3 hours classroom; 1 hour Semester Leadership Lab)

AS 400 4 credit hours (Fall & Spring)
(3 hours classroom; 1 hour Semester Leadership Lab)

AUTOMOBILES ON CAMPUS

The security director enforces traffic and parking regulations on and around campus. The parking system consists of express lanes with proximity readers (AVI electronic seal). In addition, in each entrance and exit station, ticket machines are installed to facilitate access to visitors.

DINING SERVICES

The Student Dining Service provides a variety of options for students who wish to dine on-campus. The cafeteria offers breakfast, lunch and dinner, Monday through Saturday. Hot meals and fast food are available. Vending machines for snacks and refreshments are also located throughout the campus.

STUDENT ACTIVITIES

A combination of both extra-curricular and co-curricular activities is available on campus providing all opportunities for all students to enhance their educational experience. The Office of Cultural and Social Activities is responsible for the diffusion and promotion of artistic events for the enjoyment and enrichment of the university community according to its needs and interests. Each year through the establishment of a visiting artists series, outstanding musicians, singers, artists, dancers, lecturers and other performers share their talents and expertise with students. In addition to on-campus art exhibits, the academic schools present dance programs, musical concerts, athletic competitions, and theatrical productions.

STUDENT GOVERNMENT

Through student governing bodies, students have an opportunity for self-government and to participate with the faculty and administration in formulating appropriate policies. Student Council members are elected by secret vote by the members of the Student Government Assembly. The Council meets once a month. Students are represented in the institution's governing bodies through this Council. Opinions and recommendations are presented to the Vice Chancellor of Students Affairs. Its members participate in academic, discipline, sports, and cultural activities committees.

STUDENT PUBLICATIONS

The institutional newspaper ***El Turabón*** is published four times a year by students of the communication program. It serves as a medium for all institutional activities and as a practicum experience for the students.

STUDENT ORGANIZATIONS

According to their interests, students may join religious, social service, academic, professional, and honorary groups. A fair is held at the beginning of each term to help new students get acquainted with and select the group or groups that interest them. All students are encouraged to participate actively in clubs and organizations.

UNIVERSIDAD DEL TURABO CHOIR

The Universidad del Turabo choir offers students the opportunity to cultivate their musical abilities and talents and enables them to represent the University in activities on and off campus

THEATER WORKSHOP

The theater workshop provides students with the opportunity to develop their abilities in the performing arts. The workshop organizes and produces one play per semester

for the enjoyment of the university community and the community at large.

ATHLETIC AND INTRAMURAL PROGRAMS

Athletic and Intramural Programs within the Department of Physical Education, of the School of Education play an important role in the educational process of Universidad del Turabo. The programs offer a wide range of recreational and intercollegiate competitive sports for all eligible students. Both individual and team sports have brought the university and individuals national recognition. An outstanding staff of administrators, coaches, and expert trainers work in unison to make the campus athletic programs for men and women a first-class endeavor. The university boasts 28men's and women's varsity teams, which have won 240 champion and sub-championships since 1975. These triumphs include the record-setting achievement of winning male and female Intercollegiate Athletic League track and field championship 24 times since 1987. Universidad del Turabo athletes have also been champions in basketball, weight lifting, decathlon, heptathlon, volleyball, beach volleyball, tennis, table tennis, swimming and relays. Each year, the intramural program allows participation of more than 7,000 active and passive students and faculty members. The teams are called the "Taínos" with their orange, black, and white colors. The sports facilities include indoor basketball and volleyball courts, tennis courts, free weight and Cybex machines gym, a 400-meter track, swimming pool, a baseball park, jogging trail and wellness center.

VETERAN'S SERVICES

The Veterans' Services Office, located in the Registrar's Office, is primarily concerned with the motivation of veterans and their dependents to effectively exercise their right to an education.

Veterans are assisted in the completion and processing of required documents for the purpose of establishing eligibility, certification of services and academic progress. These services are offered in close coordination with the Veterans Administration Office of Puerto Rico.

Veterans and their beneficiaries must complete their program of studies within the time established by their curriculum. Students who extend their studies beyond the time established by the program cannot continue to receive veterans' benefits. If the student is a recipient of the Pell Grant, he may resort to the 150% additional time established by the institutional standard for Satisfactory Academic Progress. Veterans will be evaluated utilizing both veterans' benefits and Pell Grant criteria, if they are beneficiaries of these.

Veterans Administration Office will not pay courses in order to raise GPA. It will only pay failed courses (F, NP-Failure) or those that requires a minimum approval grade. Veteran's Administration Office will reduce benefits to the students as of the last day of attendance to class.

VICE CHANCELLORSHIP OF INFORMATION RESOURCES
INFORMATION RESOURCES

The Vice-Chancellorship of Information Resources (VCIR) is the primary information center for the UT main campus and additional locations. It provides students, professors, staff, and the external community services and resources that are aligned with the institutional priorities, goals and strategic plan. The VCIR is organized into four main structures: the Library, Archives, Information Technology and Informatics and Telecommunications units.
Library services, archives, collections, and technology resources play a crucial role in the support of the institution's mission for teaching, learning, research, and information literacy through guided independent instruction on the web and direct group instruction. During the past ten years, the VCIR has provided a place for both the physical and the Virtual Library.

LIBRARY

The Library administers collection development activities (acquires and catalogs materials) for its main campus and Additional Location libraries. The Library has support from the Coordinator for Automated Systems to administer and update the Online Public Access Catalog (Voyager) and the Virtual Library. The VCIR offers a remarkable collection of print, audiovisual materials, and electronic resources and a vigorous information literacy program conducted through guided independent instruction via the web and direct group instruction.

The UT Library offers intra-library loans within the two other SUAGM universities and has interlibrary loan agreements with other universities in Puerto Rico and the United States. Library instruction has always been an important service provided at the UT Library. Notwithstanding, the level of commitment and resources for a well-designed program of user instruction has varied over time. The Library is proactive in considering and foreseeing the future needs for equipment, resources, services, and technologies relevant to the varying needs of a modern student population. Library assessment is continual and ongoing. The goal is to assess the use of library resources, satisfaction with technologies and services, and to integrate results to enhance user

satisfaction and learning experiences with library services and resources.

COLLECTIONS

The Library develops its collections according to the priorities of the programs to fulfill the information needs of its users. It actively seeks recommendations from faculty and administrators for the acquisition and development of library resources and services.

The library's collections include print, audiovisual materials, and electronic resources. There are books, electronic books, newspapers, maps, indexes, journals, periodicals, databases, and audiovisual materials. There is a special books' collection that was donated by the notable scholar Dr. Arcadio Díaz Quiñones in 1998. The Arcadio Díaz Quiñones print collection consists of approximately 2,709 volumes on the subjects of art, history, and literature. The Library also has special collections donated by Luis Trellés (Puerto Rican film critic), Mario Gaztambide, Dr. Albert O. Hirschman, Juan Manuel García Passalacqua (3,887), Dr. Ivonne Acosta Lespier, Edgardo Rodríguez Juliá (759), José Luis González (10,542), Francisco Manríque Cabrera (4,433) and a music collection of operas (1,547) donated by Antonio Monroig.

The information resources in the Library at Universidad del Turabo are a combination of a healthy print collection (119,569 volumes) and an electronic collection (composed of newer information technologies). Both the print and electronic collections have responded to changes undergone in the institution from being solely a teaching to a teaching and research institution. During the past ten years, the Library has experienced demand growth in areas such as e-books (3,061,784) and e-journals (29,180). This augmentation in requests for electronic resources has been combined with user needs for research tools such as Refworks and searching technologies provided by applications from Exlibris (Voyager and Primo) and Ebsco Discovery. While the collections have been expanding, the planning, design and implementation of library services has concentrated on developing their advanced use in the academic community through an aggressive information literacy program which is part of the Freshmen Seminar that provides literacy information support to faculty, students, courses and programs to improve teaching, research and learning.

ARCHIVES

The *Biblioteca Museo Gobernador Pedro Rosselló* (BMGPR) was created as a result of Law 290 signed in 2000 by the Commonwealth of Puerto Rico, which allows all former governors of the island to designate a non-profit or educational institution as a depository of historical materials (documents, photographs, media files, and memorabilia) of their years in office, to safeguard and make accessible to the public for reference and study.

INFORMATICS AND TELECOMMUNICATIONS

The Informatics and Telecommunications unit, which is a part of the VCIR, provides telecommunications and computer resources support (computer labs and network) to the academic community (students, professors, staff, and general public). Given that the Informatics and Telecommunication unit is interconnected to the Central Office of Information and Telecommunications (OCIT according to its Spanish acronym), located at the SUAGM headquarters, guarantees that any technology-driven project that impacts SUAGM is effectively managed by both units. The modern telecommunications infrastructure and hi-tech staff guarantees a constant assessment, evaluation, and modernization of both the technological needs of the Physical Library and Virtual Library. The Informatics and Telecommunications unit maintains a link with the Schools to help provide up-to-date computers and technologies throughout the institution to offer excellent technologies and ample facilities that meet the needs of UT users.

During the past ten years, the VCIR has improved its library resources and services. A substantial expansion of the Virtual Library's e-books holdings has been completed to house more than three (3) million in the collection. The e-book collection includes among other outstanding databases: Safari Tech Books Online, Springer Engineering Books, E-Libros (Spanish online books in multidisciplinary topics), and Compustat.

DISTANCE EDUCATION

The Distance Education unit of the Vice Presidency of Academic Affairs of the Turabo University is committed to provide required academic support to the courses in their four forms: face to face, blended, on-line and with videoconferencing/telepresence using any technological means. In the face to face courses (web-supported), hybrid (blended) and on-line courses the technological tool used to incorporate all activities is the educational platform. In the videoconferencing/telepresence courses an interactive, bi-directional and multi-media transmission is used between two or more points.

The only on-line program at UT is offered by the School of Business and Entrepreneurship which is Business Administration with specializations in Management, Marketing, Human Resources, and Materials Control and Administration. The goals and objectives of the on-line

program and courses are the same as those for face to face traditional courses.
The Schools of Education, Engineering, Heath Sciences and Natural Sciences and Technology are offering courses using videoconferencing and or tele-presence.
The Distance Education Unit ensures that all professors that teaches an on-line course are duly certified. Also, the unit oversees the instructional design and the quality in order that the courses are either equal or better than a face to face one. The Unit provides structured surfing and synchronous and asynchronous tools in the institutional educational platform.
The face to face and on-line user's support (students and professors) is provided by the Central Office of Informatics and Telecommunications (OCIT). The Help Desk service provides the user's name and password to students and professors. The Technical Support Administrator of Educational Platform Servers allows the student's and professor's access of face to face and on-line courses using the user's name and password. The User's 24/7 Support provides technical help to all on-line students of the graduate program of the School of Business and Entrepreneurship. The service is provided 24 hours for all 7 days of the week. The tests provided thru the Remote Proctor Now (RPNow) tool are also configured.

INDEPENDENT STUDY

Independent studies courses will be offered as an alternative for students who require a course that is not programmed in their graduating year. These courses will be offered by independent studies if they meet the following specific criteria:

- Course content cannot be replaced by another.
- The course is not being offered in the modality in which the student is enrolled, and the student cannot take the course that is being offered by the other modality.
- Special cases will be considered individually on its own merits by the dean of the School.
- During his university life the student may take a maximum of three (3) courses. Any exceptions will be approved by the dean of school.

MUSSEUM AND CENTER FOR HUMANISTICS STUDIES DRA. JOSEFINA CAMACHO DE LA NUEZ

The Museo y Centro de Estudios Humanísticos Dra. Josefina Camacho de la Nuez of the Universidad del Turabo has been a museum and center for the study of the humanities at the Universidad del Turabo since 1980's. Its mission is to collect, preserve, study, and disseminate the artistic and humanistic expressions of the regional and national Puerto Rican culture for the enjoyment and benefit of the university community and the general public. The museum started in one of the wooden historic buildings on campus of the sugar cane plantation Santa Juana. The Museum has a permanent collection of 3,000 objects. It has recently inaugurated a new 25,000 sq. ft. state of the facilities with galleries dedicated to the Archaeology of Punta Candelero, Puerto Rican Folk Arts, Puerto Rican Poster Collection, the History of the Central Oriental Region, Colonial Paintings from Latin America of the Lola and Antonio Roig collection, the Ana G. Méndez historical collection and a rotating exhibition space. It also has an Education Learning Center, the Walter Murray Chiesa Folk Art Archives, a 209-seat auditorium, an interior sculpture garden, a museum store and a café

EVENING AND SATURDAY PROGRAM

Students may enroll in the regular academic programs offered by the Evening and Saturday Program. The evening division operates Monday through Thursday from 10:00 a.m. to 9:00 p.m., from 8:00 a.m. to 6:00 p.m. on Friday, and from 7:00 a.m. to 3:00 p.m. on Saturday.

CONTINUING EDUCATION

The Continuing Education Program endeavors to strengthen social structure and to foster and develop academic programs according to the educational needs of the individual. These programs do not necessarily function under traditional academic rules, and their intention is to:

1. Update the student's knowledge.
2. Supply educational opportunities for personal growth to people from a variety of educational backgrounds, thus satisfying certain social, personal or occupational needs.
3. Implement professional training, both on-campus and in-house, to enhance the occupational advancement and personal development of personnel in the public and private sectors.
4. Promote community activities that explore and seek solutions to social, political, and economic problems.
5. Organize service programs for people who want to enrich their leisure time.

The program designs seminars, continuing education courses, conferences and life enrichment courses. Industries, government agencies, community institutions and the community in general benefit from this program.

SCHOOL OF PROFESSIONAL STUDIES (AHORA PROGRAM)

The mission of the AHORA Program of the School of Professional Studies is to provide an accelerated educational process to adult students. The program differs from traditional methods of instruction in that the professional experience of participants is incorporated into the classroom to create an interactive, challenging and dynamic environment. Faculty members have professional experience and have been specially prepared to work with adults as innovative educational facilitators. AHORA is designed exclusively for the adult student; it offers a professional environment, as well as integrated, personalized and individualized services. To fulfill this mission, the School of Professional Studies intends to:

- Promote adults to value continuous learning and increase their contribution to the world of employment
- Facilitate adult students in attaining their educational goals
- Create a learning community that facilitates building new knowledge which is based on and is applicable to the professional and personal reality of adults
- Provide integrated student services of quality and easy accessibility to adult students
- Recruit and develop staff who know and are able to meet the needs of the adult students effectively.
- Integrate technology into the academic, service and administrative processes
- Develop academic offerings that respond to the present needs of the professional and business world
- Establish a continuous process of feedback and assessment of all the processes and services.

Description of the Accelerated Program of Studies
The AHORA Program is accelerated because all of its courses are offered in five or eight week sessions. During each session, classes meet once a week for four hours. The accelerated methodology is based on a learning process shared between the professor and the student. Each student receives a module which serves as a study guide and indicates the assignments and activities that must be completed to prepare for class. Our faculty is specially selected and trained to work with adult students through the accelerated mode, facilitating a class environment where learning is built on experiences and the assignments performed by the students. This model of accelerated studies can be applied to the different academic programs of the institution, to new academic programs or any other academic program where adult students participate. The courses are offered evenings and Saturdays (morning and afternoon). The student may take a maximum of two classes per session, completing six credits every five or eight weeks. Registration is continuous, with courses beginning fourteen times a year, and the possibility of completing up to fifty-four credits in an academic year. This way, the program provides greater flexibility for students, since they can accelerate their academic progress or design a class program that conforms to the different commitments they may have during the year.

Admissions Requirements
To fulfill its mission and goals, the AHORA Program admits only adult students with academic and professional experience that meet the following requirements:

- 21 years of age or older
- 2 years of work experience
- 12 credits of academic work at the postsecondary level

OFF-CAMPUS CENTERS

Universidad del Turabo currently operates five (5) additional locations located in Barceloneta, Cayey, Isabela, Ponce, and Yabucoa. Each additional locations deliver the same curriculum that is offered at the UT main campus. Contact information is included below.

BARCELONETA

Ramón Díaz, Director / rdiaz@suagm.edu

Postal Address
PO Box 2194, Barceloneta, PR 00617

Physical Address
Carr. PR 2 Km. 59.0
Sector Tiburón, Barceloneta, PR 00617

Phone: (787) 787-846-1777
Fax: (787) 846-1778

CAYEY

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TURABO UNIVERSIDAD DEL TURABO SISTEMA UNIVERSITARIO ANA G. MÉNDEZ

Academic Offerings 2016-2017

Associate Degree's & Technical Programs

Programs	Principal Campus	Off-Campus Centers				
		Barceloneta	Cayey	Isabela	Ponce	Yabucoa
Business and Entrepreneurship						
Accounting	x		x			x
Computer Information Systems	x		x			x
Emergency Management & Disaster Recovery	x					
Management	x		x		x	x
Office Administration	x		x	x		
Education						
Personal Training	x					
Sign Language Interpretation	x					
Sports Training	x					
Engineering						
Electronic Engineering Technology	x					
Computer Technology & Networks	x					x
Electric Engineering Tech & Renewable Energy	x	x				
Mechanical Engineering Technology	x	x				
Quality Control Engineering Technology	x					
International School of Design and Arquitecture						
Architectural Drafting	x					
Fashion Design	x	x				
Web Design	x	x				
Health Sciences						
Nursing	x		x	x	x	x
Veterinary Technician	x	x	x		x	x
Natural Sciences and Technology						
Biopharmaceutical Technology	x	x				
Food Technology and Safety	x					
Social Sciences and Communications						
Cinematography and Photographic Direction	x					
Forensic Investigation	x	x				
General Social Sciences	x					
Penal Justice/Security and Protection	x		x	x	x	x
Technical Studies						
Certificates:						
Assistant Teacher in Early Childhood Education	x			x	x	x
Clinical Therapeutic Massage	x		x		x	
Computerized Systems	x					x
Medical Billing with Electronic Medical Records	x		x		x	x
Paralegal Technician	x				x	
Practical Nurse	x		x	x	x	x
Private Investigator	x	x	x	x	x	x
Associate Degrees:						
Pharmacy Technician	x		x	x	x	x
Respiratory Therapy	x	x	x	x	x	x

DEANSHIP OF GENERAL EDUCATION

DEANSHIP OF GENERAL EDUCATION

The Office of the Deanship of General Education was created in February 2012 to address the particular needs of new students admitted to the University. In addition to offering first-year and second-year courses in the General Education Component (GEC), the Deanship of General Education provides an array of support services to students in their first and second year. Additionally, advanced undergraduate courses in English, Spanish, and History are offered as a service to Education majors or those interested in pursuing further study in those areas. Although it is not a degree granting component of the institution, the Deanship works closely with all of the schools and offices of the university to promote the success of all students.

MISSION

The mission of the Deanship of General Education (DGE) of the Universidad del Turabo is to provide students with fundamental intellectual and critical thinking skills to ensure that students are equipped to be responsible members of a global and technological society.

In such, the DGE aims to prepare students with the necessary skills in oral and written communication, knowledge of global and historical issues, mathematic and scientific reasoning, technological competencies, and biological and social aspects of humans.

VISION

The vision of DGE is to provide students with a breath of knowledge and experiences to think and reason across disciplines so that they are successful both inside and outside the academic world.

LEARNING OUTCOMES

The Deanship of General Education aims to develop the following knowledge, skills, and attitudes in all students:

1. Identify and understand global issues from the social, economic and political perspectives
2. Comprehend the biological, behavioral and social aspects of human beings
3. Analyze the importance of historical and current world events
4. Understand and explain the multi-disciplinary nature of learning and problem solving
5. Explain the relationship and contribution of the arts and the humanities in society's development
6. Apply ethical values and principles as a responsible citizen
7. Recognize the importance of the conservation of nature and the environment
8. Respect human rights, tolerance, diversity, and individual and cultural differences
9. Develop and apply critical thinking skills to solve problems
10. Communicate effectively in oral and written Spanish and functionally as English language learners
11. Develop and apply mathematical, reasoning skills and scientific inquiry methods
12. Achieve basic literacy in technology

FACULTY

Javier Alemán Iglesias / Assistant Professor
PhD, Universidad Interamericana de Puerto Rico

Catherine Blackburn / Professor
PhD, Universidad de Puerto Rico

Edwin Calderón Santana / Assistant Professor
EdD, Nova Southeastern University

José Calderón Rivera / Assistant Professor
PhD, Centro de Estudios Avanzados de Puerto Rico y el Caribe

Ileana Canetti Mirabal / Associate Professor
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MA, San Francisco State University

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Sandra Pulliza Polo / Professor
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MA, Catholic University of America

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PhD, University of Illinois at Urban-Champaign

Julio Vélez Ortiz / Assistant Professor
MA, Universidad de Puerto Rico

Zoran Vujisic-Jovovic/ Assistant Professor
Ph.D, Rhodes University

COURSE DESCRIPTIONS

(Courses marked with @ could be offered in both modalities, traditional or online.)

ART 101
Art Appreciation
Three Credits
The course discusses the basic principles of painting, sculpture, and architecture, with emphasis on painting. It centers on the elements necessary to judge a work of art. The content includes the different techniques for creating work of art.

ART 121
Drawing I
Three Credits
The course covers basic principles of drawing. It includes training in the different media of graphic expression, along with exercises in structure, proportion, light and shadow, rhythm, balance, and the basic concepts of perspective.

ART 122
Drawing II
Three Credits
The course is a continuation of ART 121, and that develops more advanced principles of drawing. It includes further development in the different media of graphic expression, along with exercises in structure, proportion, light and shadow, rhythm, balance, and the basic concepts of perspective.

ART 201
Theater Arts I
Three Credits
The course centers on drama from a historical perspective, and includes an introduction to the theater arts. Students may be assigned to participate in small-scale productions.

ART 202
Theater Arts II
Three Credits
The course is a continuation of ART 201, and develops more advanced topics in theater arts. It includes further exploration of drama from a historical perspective, and includes an introduction to the theater arts. Students may be assigned to participate in small-scale productions.

ENGL 152
Fundamentals of Reading and Writing
Three Credits
This course develops and strengthens students' listening, speaking, reading, and writing proficiency in English. It includes grammar, vocabulary expansion, reading skills, writing mechanics, and sentence writing. Students analyze and write descriptive, and narrative, opinion, and cause/effect paragraphs.

ENGL 152E
Fundamentals of Reading and Writing Enhanced
Three Credits
This course develops and strengthens students' listening, speaking, reading, and writing proficiency in English. It includes grammar, vocabulary expansion, reading skills, writing mechanics, sentence writing and descriptive, narrative, opinion, and cause/effect paragraphs. In addition to class hours, students must participate in the English laboratory and use a virtual learning platform.

ENGL 152EL
Fundamentals of Reading and Writing Enhanced Laboratory
Zero Credits
This course develops and strengthens students' listening, speaking, reading, and writing proficiency in English. It includes grammar, vocabulary expansion, reading skills, writing mechanics, sentence writing, and descriptive, narrative, opinion, and cause/effect paragraphs. In addition to class hours, students must participate in one hour per week of English language laboratory and one hour per week of tutoring/support services.

ENGL 153 @
Advanced Communicative English
Three Credits
This is a performance course designed to improve writing and communication skills in English. Students will learn how to choose a topic, gather information and ideas, create topic sentences, construct a thesis statement, and write four different types of essays. The course also provides writing models, guided structural activities, and integrated grammar lessons.

ENGL 205
Introduction to Literary Genres I
Three Credits
In this course, the students will read, study, and analyze the different prose genres at an introductory level: the essay, the short story, and the novel at an introductory level. They will become familiar with the various strategies and techniques used in literature to enhance expression: style, structure, diction, imagery, narrative point-of-view, and irony, among others. Key components of the course are students' verbal and written responses and analyses of literature selections.

ENGL 206
Introduction to Literary Genres II
Three Credits
This is an introductory course to the genre of poetry and drama. In order to enhance students' interpretation and appreciation of poems and plays, various strategies and techniques used in English 205 will be applied, in addition to

the study of the elements of poetry and drama. The importance of words, denotation and connotation, imagery, figurative language, tone and musical devices, rhythm and meter, and patterns of traditional poems will be analyzed in poetry; whereas, theme, plot, characters, dialog, music, and visual elements will be discussed in different works of drama. Multiple critical approaches to enrich the examination of the selected literary works will also be used.

ENGL 211-212
Business English I and II
Six Credits
This is a required course for students majoring in business administration. Emphasis is on grammar, as well as oral and written business English. Students will practice writing a variety of business letters; they will also prepare a résumé and participate in role-playing for job interviews.

ENGL 231 @
Research and Writing
Three Credits
Research and Writing is a performance course designed to develop students' skills in academic research and writing. The focus is on the strategies and techniques needed in the process of producing original academic research-based papers. Students will learn how to choose a topic, create a research question and thesis statement, research information, organize ideas, and use technological and library resources. The principal emphasis will be on correct writing of formal English, clarity, organization, and logical development. In addition, all papers will exhibit proper use of current American Psychological Association (APA) norms. Students will receive practical instruction in the adequate use of computerized resources in the SUAGM libraries and in the application of APA norms of academic style and citation of bibliographical sources.

ENGL 245
Introduction to Grammar
Three Credits
This course is a required course for English majors who are planning to be teachers of English as a second language, and also for those who need to improve their mastery of the English grammar. It will give the students sufficient practice exercises to enrich and enhance their skills. The course will also enable students to attain success in written communication through practice with grammar and language use. The emphasis will be on the traditional approach to grammar.

ENGL 317
English Literature I
Three Credits
This is an intensive reading course in English literature that covers from Chaucer to the neoclassical era and from the Romantic era to the present.

ENGL 321
American Literature I
Three Credits
This is a survey course which offers a chronological overview of the literature of the United States from colonial times to the present.

ENGL 331
Oral Communication
Three Credits
This course deals with the theory and practice of public speaking. It emphasizes the importance of nonverbal communication (body language, eye contact, attire) and verbal techniques (pronunciation, intonation, volume, and rate). Effective interpersonal and intercultural communication is also discussed. Students will practice delivering a variety of speeches, which include self-introduction, personal experiences, informative and persuasive speeches in an organized and coherent manner. Some speeches require the use of visual aids and technology.

ENGL 342
Adolescent Literature
Three Credits
English 342 is an overview of the history and current trends and issues of Young Adult Literature. Strategies, methods, and materials for teaching literature to young adults are examined. It is a required course for students pursuing a degree in Secondary Education in English and prepares students for the Certification requirement of the Department of Education of Puerto Rico.

ENGL 345
Children's Literature
Three Credits
This is a required course focused on preparing students for the English Teachers' Examination, a certification requirement of the Department of Education of Puerto Rico. It comprises an overall presentation of children's literature and its developmental stages from the sixteenth century to the present. It provides a survey of children's literature which includes various authors and illustrators in such genres as the oral tradition, fantasy, realistic and historical fiction, poetry, and the picture book. Future English teachers will acquire techniques and strategies that will prepare them to teach children's literature.

ENGL 360
Comparative Analysis: English and Spanish
Three Credits
This is a required course focused on preparing students for the English Teachers' Examination, a certification requirement of the Department of Education of Puerto Rico. The course aims to acquaint future teachers with today's concepts of contrastive linguistics, with a view towards raising their awareness of the similarities and differences

between selected features of English and Spanish. By understanding particular aspects of both languages and their role in crosslinguistic influence, students will be better prepared to teach language concepts to others.

ENGL 371
Introduction to Linguistics I
Three Credits
This is a course which introduces future English teachers to linguistic theory, within the context of the other social sciences that seek to describe and analyze human behavior. Emphasis is on gaining an understanding of the different levels of linguistic analysis, which include: phonetics/phonology, morphology, syntax, and semantics.

ENGL 600
Advanced Writing Seminar for Graduate Students
Zero Credits
This is an advanced writing seminar for graduate students in any stage of their studies. The course will prepare the students by offering an overview of the necessary academic writing and research skills. In addition, the seminar will include the technical aspects for effective academic writing.

FRCH 101
Basic Course in French I
Three Credits
The purpose of this course is to familiarize students with the French language and culture through the use of readings, writing, listening, and conversational skills.

FRCH 102
Basic Course in French II
Three Credits
This course is a continuation of FRCH 101, and will continue to develop students' knowledge of the French language and culture through the use of reading, writing, listening, and conversational skills.

FRCH 201
Intermediate French I
Three Credits
The course centers on the study of French grammar and intermediate conversational skills, and includes practice in reading and writing.

FRCH 202
Intermediate French II
Three Credits
This course is a continuation of FRCH 201, and will study French grammar and intermediate conversational skills. It includes practice in reading and writing.

HIST 221
Ancient and Medieval History
Three Credits
This course begins with an analysis of some key concepts of the discipline of history (pre-historic and historic). It includes the study of ancient civilizations (Mesopotamia, Egypt, India and China). It explores Greek and Roman civilizations, continuing up to the Medieval period, and culminating with the fall of the Byzantine Empire.

HIST 230
Renaissance, Reform and the Rise of the State
Three Credits
This course studies the history of Europe between the XV and XVI centuries. The political, social and economic panorama at the start of this period is presented. The Renaissance as a cultural movement is reviewed, the colonization of America as a central event in the European economy of that period is presented, and the Protestant and Catholic Reformations are analyzed. Lastly, the history of Europe in the XVII century and the establishment of the State and its importance in the modern and contemporary age are treated. The student will obtain a general and panoramic vision of the historical origins of the West.

HIST 231
European History XIX Century
Three Credits
The course deals with the development of liberalism, nationalism and industrialization in conflict with authoritarian forces that were prevalent during the XIX century. Topics include the development of nations and international rivalry leading to World War I.

HIST 232
Contemporary World Problems
Three Credits
The course centers on the problems of the contemporary world and the consequences that these entail as seen in the context of current events. Events occurring throughout the 20th and 21st centuries are discussed. The Cold War, colonialism, neocolonialism and globalization are discussed.

HIST 253 @
History of Puerto Rico (Compendium)
Three Credits
The course is a compendium of the history of Puerto Rico from prehistory to the present. It begins with a discussion of the principal geographical aspects of Puerto Rico. Socio-economic, political, cultural, and religious issues will also be analyzed and interpreted from a panoramic perspective.

HIST 257
Puerto Rico in the XX Century
Three Credits
The course deals with political, economic, social, and cultural problems beginning with the American sovereignty in 1898 up to the present.

HIST 261
Latin American History I
Three Credits
The course centers on the historical evolution of the countries that form Latin America from Pre-Columbian culture to the XVIII century; the important geographical elements that influenced this development; economic, social, cultural, and religious life of the colonies from the XV to XVIII centuries; the ideas of the Illustration, the reforms that took place in the colonies, and the consequences of these reforms.

HIST 262
Latin American History II
Three Credits
The antecedents of the independence movements are studied. The events in Spain at the start of the XIX century and their repercussions in the colonies, the principal leaders, and the most important and dramatic events in the wars for independence are also discussed. The political, economic and social situation of the Latin American nations from the XIX to the XXI centuries is analyzed. The political, social, economic and cultural current of present Latin America is studied.

HIST 271
History of the United States of America I
Three Credits
The course centers on the study of the development of the United States from its formation to Reconstruction in the second half of the XIX century. The evolution of political, social and economic institutions of the nation and the distinctive traits of its society are emphasized. Its formation during the colonial period, the Revolution, the growth of the young colony, The Civil War and Reconstruction will be analyzed.

HIST 273
History of the United States of America (Compendium)
Three Credits
The course presents the development of the American nation from the beginning of its society to the present. It emphasizes the evolution of political, social, and economic institutions, and the distinctive traits of its society.

HIST 305
History of the Caribbean
Three Credits
The historical evolution of the Caribbean region in the centuries elapsed from its pre-Columbian origins to the present are studied, as well as geographical aspects of the islands, their conquest and colonization by European interests. The political, socio-economic and cultural aspects of the region are analyzed, as well as the hegemony of the United States over the Caribbean up to the present time.

HIST 320
History of Africa
Three Credits
This course studies the historical development of Africa from its origins to the present, as well as the continent's geography. It emphasizes the origins of African culture and the historical sources. The colonial period, the struggle for independence and the emergence of new national states framed in the present historical context and their role in world problems are also studied. The problems currently faced are discussed, highlighting the political, socio-economic and cultural aspects, as well as the historical processes, cultural and traditional values, beliefs and customs that have influenced the development of humanity. The relationship, contributions and importance of Africa for Puerto Rico throughout history are discussed.

HUMA 111
Civilizations and Universal Culture I
Three Credits
The course analyzes the development of the human being, with emphasis on culture, arts, philosophy, religions and ideas, thus encouraging students to understand the differences between countries and societies from their origins until the middle Ages.

HUMA 112
Civilizations and Universal Culture II
Three Credits
The course centers on the development of the human beings with emphasis on culture, arts, philosophy, religions and ideas, encouraging students to understand the differences between countries and societies from the Renaissance to the present.

ITAL 101
Introduction to Italian I
Three Credits
This is an introductory course which will familiarize students with the Italian language and culture.

ITAL 102
Introduction to Italian II
Three Credits
This course is a continuation of ITAL 101. It will further develop students' language skills in Italian.

ITAL 201
Intermediate Italian I
Three Credits
The course deals with grammar, reading, writing, and conversation in Italian.

ITAL 202
Intermediate Italian II
Three Credits
This course is a continuation of ITLA 201 and will further develop Italian grammar, reading, writing, and conversation skills.

MATH 120
Introductory Algebra
Three Credits
The course deals with elementary algebra topics such as: theory of sets, real numbers, algebraic expressions, equations, linear inequalities and operations with polynomials.

MATH 120E
Introductory Algebra Enhanced
Three Credits
This course aims to develop students' basic mathematical competency in the following areas: arithmetic, algebra and geometry. The main topics covered are: arithmetic operations, equations and linear inequalities, area and perimeter of polygons and circles, and volume of solids. Special emphasis is placed on problem solving. In addition to the conference and laboratory hours, the student will practice independently using a virtual platform.

MATH 120EL
Introductory Algebra Enhanced Laboratory
Zero Credits
This course develops in students the basic mathematical competences in the following areas: arithmetic, algebra and geometry. The main topics covered are: arithmetic operations, equations and linear inequalities, area and perimeter of polygons and circles, and volume of solids. Special emphasis is placed on problem solving. In addition to the conference and laboratory hours, the student will practice independently in a virtual platform.

MUSI 101
Music Appreciation
Three Credits
The course centers on music as a source of aesthetic enjoyment. Students learn to recognize the forms of musical composition (folk and art songs, the fugue, the sonata, the symphony, the opera, etc.) through lectures, recordings, and demonstrations by the professor, other students, or guest artists.

MUSI 103
University Choral Ensemble I
The course prepares students for the interpretation of chamber choral music as part of the Universidad del Turabo Chorus. The course includes the rehearsal and performance of academic works from the universal choral repertoire, as well as popular and folkloric music. The skills are developed by means of weekly rehearsals and intensive workshops in score sight-reading and vocal technique for choral ensembles. Moreover, as part of the educational experience the chorus presents concerts and participates in institutional activities, as well as other cultural events.

MUSI 104
University Choral Ensemble 2
The course prepares students for the interpretation of chamber choral music as part of the Universidad del Turabo Chorus. The course includes the rehearsal and performance of academic works from the universal choral repertoire, as well as popular and folkloric music. The skills are developed by means of weekly rehearsals and intensive workshops in score sight-reading and vocal technique for choral ensembles. Moreover, as part of the educational experience the chorus presents concerts and participates in institutional activities, as well as other cultural events.

PORT 101
Introduction to the Study of Portuguese I
Three Credits
PORT 101 aims to familiarize and guide students in their first contact with the Portuguese language and Brazilian culture. It focuses on basic pronunciation and intonation knowledge, as well as the acquisition of essential everyday lexicon and grammar rules necessary for effective communication. An initial contact with the Brazilian culture through the use of cultural elements such as music, literature, and carnival will also be provided. Additionally, fundamental differences between the Portuguese language spoken in Brazil and in Portugal will be examined.

PORT 102
Introduction to the Study of Portuguese II
Three Credits
PORT 102 continues to present basic knowledge that allows students to achieve effective communication in conversational Portuguese. Activities and readings will be presented to improve pronunciation, intonation, comprehension, and basic writing skills. Additionally, students will be exposed to Brazilian culture through the study of: soap operas, ecology, education, cities, and legends, among others.

PHIL 201
Introduction to Philosophy I
Three Credits
Study of the nature and development of philosophical thoughts and its problems. Studies the principal philosophers for Greece to the present.

SOSC 111
Individual, Community, Government and Social Responsibility I
Three Credits
This course centers on the historical development of the social sciences and their relevance in contemporary society. It emphasizes the study of individuals as members of a community. Their social, biological, cultural and psychological dimensions, along with their ethical and social responsibilities, will also be examined.

SOSC 112
Individual, Community, Government and Social Responsibility II
Three Credits
This course analyses the experience of the individual as a member of community: their civic, political, economic and environmental dimensions along with their ethical and social responsibilities will be addressed.

SPAN 107
Fundamentals of Reading and Writing Bilingual I
Three Credits
The course emphasizes the development of reading, writing, and speaking skills of for students of Spanish as a second language. The course gives emphasis to vocabulary enrichment and grammar from a bilingual point of view. Students are required to attend a weekly session in the language laboratory.

SPAN 108
Fundamentals of Reading and Writing Bilingual II
Three Credits
This course is a continuation of SPAN 107. It continues to develop students' reading, writing, and speaking skills in Spanish as a second language. It will cover writing techniques to develop paragraphs, letters, and résumés.

SPAN 141
Spanish as a Foreign Language I
Three Credits
This course aims to guide students in their first contact with the language and culture of Puerto Rican Spanish. The course will present basic concepts in language and culture which will allow students to achieve effective oral communication in Spanish. It also focuses on the teaching of pronunciation and intonation of the Spanish language. Additionally, the course concentrates on the acquisition of vocabulary needed for daily use, as well as the use of vocabulary in context. In addition to the class contact hours, students will engage in independent practice using a virtual platform.

SPAN 152
Fundamentals of Reading and Writing
Three Credits
This course develops paragraph writing skills, as well as the structure, the characteristics, and methods for the organization of ideas through the reading and analysis of texts. Basic elements of communication and the Spanish language are studied, in addition to the features of narrative and descriptive discourse.

SPAN 152 I
Fundamentals of Reading and Writing Enhanced
Three Credits
This course develops paragraph writing skills, as well as the structure, the characteristics and methods for the organization of ideas through the reading and analysis of texts. Basic elements of communication and the Spanish language are studied, in addition to the features of narrative and descriptive discourse. As a support to the class, the student must attend the language lab for tutoring, and will practice independently with a virtual platform.

SPAN 152 IL
Fundamentals of Reading and Writing Enhanced Lab
Zero Credits
This course develops paragraph writing skills, as well as the structure, the characteristics and methods for the organization of ideas through the reading and analysis of texts. Basic elements of communication and the Spanish language are studied, in addition to the features of narrative and descriptive discourse. As a support to the class, the student must attend the language laboratory for tutoring, and will practice independently with a virtual platform.

SPAN 201-202
Business Spanish I and II
Six Credits
The course aims to develop communication skills directed at business correspondence. Emphasis is on the contribution of logic, psychology, ethics, and grammar to communications.

SPAN 213
Literary Genres I
Three Credits
This course deals with the characteristics of literary language, poetry, drama, and the essay. Illustrative works of each of these literary genres will be analyzed. The course will expose the students to language as a means for artistic creation, and will provide the students with reading

strategies to develop an active approach to reading, not only of literary texts, but of any kind of discourse.

SPAN 214
Introduction to Literary Genres II
Three Credits
This course deals with the characteristics of the narrative genres, especially that of short stories and novels. The process of evolution of these genres will be studied, and illustrative works of both genres will be analyzed. The course will expose the students to language as a mean for artistic creation, and will provide the students with reading strategies to develop an active approach to reading not only of narrative texts, but of any kind of discourse.

SPAN 215
Advanced Composition
Three Credits
The course emphasizes the development of the skills needed to write logically and correctly. Research techniques will also be covered.

SPAN 221-222
Spanish Literature I and II
Six Credits
This course is a panoramic view of Spanish Literature from its origins up until the beginning of the Spanish Renaissance. Special attention will be placed on the distinctive features of Spain's historic and cultural background until the end of the Medieval times. Illustrative texts from this period will be read and analyzed. In the second semester the students will be exposed to a diachronic view of Spanish literature from the Renaissance (16th century) to the so-called Generation of '98 (beginnings of the 20th century). The main authors and works of these literary periods will be studied taking into consideration their historical and cultural context.

SPAN 230
Introduction to Linguistics
Three Credits
This course studies some general aspects of the origin of modern linguistics, the history and evolution of Spanish linguistics, and the main elements of the study of language. The course is based on the notion of language as a linguistic sign. The topics of language acquisition and language variations, which depend on geographic, social and individual aspects, will also be considered.

SPAN 250 @
Writing Techniques
Three Credits
This course will develop oral and writing skills, which will enable composition at the university and professional level. Diverse strategies will be used for the reading and writing of expositive, argumentative and professional texts.

SPAN 255 @
Research and Writing
Three Credits
This course aims to develop students research and advanced academic writing skills. Throughout the course, the process of critical inquiry (the selection of a topic, statement and resolution of a hypothesis, and the search for data, its revision and use) will be covered. In addition, the writing process (pre-writing, organization of details, edition, correction, re-writing), will be emphasized.

SPAN 265
Advanced Grammar
Three Credits
This course is an in-depth study of the morphological and syntactical aspects of the Spanish language.

SPAN 290
Language and Culture of Puerto Rico
Three Credits
This course aims to immerse students in the language and culture of Puerto Rican Spanish. The course will present basic concepts in language and culture which will allow students to achieve effective oral communication in Spanish. It will also focus on the teaching of phonetics, pronunciation and intonation of the Spanish language. Additionally, the course concentrates on the acquisition of vocabulary needed for daily use, vocabulary in context, reading and writing for daily communications. In addition to the classroom experience, students will engage in several real-world dialogues (on and off campus) with community members and experts in the fields of business, health, education, culture and the fine arts. The course also requires students to participate in a virtual platform in and outside of the classroom.

SPAN 323
Spanish Literature
Three Credits
The course covers Spanish literature from the Golden Century to the present.

SPAN 331
Oratory and Speech Communication
Three Credits
This course will develop in the students the skills to perform effective oral presentations both in their personal and professional life. Through practice and theoretical discussions, using examples and showing diverse strategies and styles, the course will help them develop a critical sense about the essence of an effective oral presentation.

SPAN 453
Puerto Rican Literature
Three Credits
This course will deal with the main literary movements, authors and works of Puerto Rican literature. It will discuss the evolution of Puerto Rican literature from the Colonial period to the present.

SPAN 463
Spanish-American Literature
Three Credits
This course will deal with Spanish American Literature and its origins since the 15th century up to the present. The main authors and works of these literary periods will be studied, taking into consideration their historical and cultural context.

*Students will be placed into appropriate levels by CEEB scores or by department placement exams.

Note: Literature courses need not be taken in numerical order.

SPAN 490
Language and Culture of Puerto Rico II
Three Credits
This course aims to immerse students in the language and culture of Puerto Rican Spanish. The course will present concepts in language and culture which will allow students to achieve effective written and oral communication in Spanish. Additionally, the course will concentrate on the acquisition of advanced linguistic skills for social, professional and academic purposes. In addition to the classroom experience, students will engage in several real-world dialogues (on and off campus) with community members and experts in the fields of business, health, education, culture and the fine arts. The course also requires students to participate in a virtual platform in and outside of the classroom.

SPAN 600
Advanced Writing Seminar for Graduate Students
Cero Credits
This is an advanced writing seminar for graduate students in any stage of their studies. The course will prepare the student with the necessary academic writing and research skills. In addition, the seminar will include the ethical and technical aspects for effective academic writing..

SCHOOL OF BUSINESS AND ENTREPRENEURSHIP

UT's School of Business and Entrepreneurship academic offer ranges from certificates to doctoral studies. Programs have been designed taking into consideration the needs and requirements of the industrial, entrepreneurial, professional and public sectors in the Island. The general areas of specialization in its academic programs are: Entrepreneurship, Management, Marketing, Accounting, Information Management and International Business. Other academic tracks such as quality, taxation, human resources and materials are offered under the main areas of specialization.

The School has visiting faculty in the Management and Management Information System programs proceeding from countries such as: Spain, Mexico, India and the United States. Its full-time faculty is integrated by highly competitive members, most of whom have doctorate degrees.

In the interest of achieving its objective of providing the student with a global business vision, the School of Business and Entrepreneurship maintains relationships and collaborative agreements with prestigious universities around the world.

PARTICIPATING INTERNATIONAL ORGANIZATIONS

Consejo Latinoamericano de Administración de Empresas (CLADEA)
International Academy of International Business (AACBS)
Fundación para la Educación Internacional (FESI)
Red Latinoamericana Emprendedora
World Economic Forum (WEF)

COLLABORATIVE RELATIONS WITH OTHER INTERNATIONAL BUSINESS SCHOOLS

Universidad Veracruzana
Instituto Politécnico Nacional de Méjico
Universidad de las Américas, en Puebla
George Washington University
Instituto Tecnológico de Monterrey
Universidad Autónoma de Madrid
Universidad Politécnica de Madrid
Universidad de San Pablo
Groupe ESC Toulouse
Oslo School of Management in Norway
Argosy University
Florida International University
Other institutions in process in: Spain, Peru, Brazil, Chile, United States and Costa Rica.

SPECIALIZED ACCREDITATIONS

AACSB ACCREDITED

In April of 2011, the School of Business and Entrepreneurship earned the specialized accreditation awarded by the "Association to Advance Collegiate Schools of Business" (AACSB, International) and in June 2016 have extended the accreditation. The School thus positions itself as the only institution to have that accreditation in Puerto Rico and the Caribbean. AACSB accreditation is the hallmark of excellence in business education, and has been earned by less than 5% of the world's business schools. The school renewed its accreditation in 2016.

MISSION

The Mission of the School of Business and Entrepreneurship at the University of Turabo is to develop professionals, leaders and academics with a superior theoretical knowledge and practical skills for creating and developing new enterprises and effective management of existing business. Our students acquire the skills, values and sense of social responsibility in their business practices through education that is entrepreneurial in spirit, ethical in its approach and global in orientation. Excellence in teaching is enhanced by a faculty committed to professional development, intellectual contributions and service. As a professional school of business, we want to have a positive impact on the society, organizations and the communities of in which our students and alumni are a part.

VISION

The vision of the school is to be the leading school in business education and research in Puerto Rico and the Caribbean and the preferred partner for successful alliances for the government, private sector and non-profit organizations, both national and international.

FACULTY

Brunilda Aponte / Associate Professor
PhD, Universidad Interamericana de Puerto Rico

Juan J. Carrasquillo-González / Associate Professor
DBA, Pontificia Universidad Católica de Puerto Rico

Sylvia Cardona-Colón / Assistant Professor
PhD, Universidad de San Pablo

Pablo A. Colón-Gruñeiro / Professor
MBA, Universidad de Puerto Rico

José O. Cruz / Assistant Professor
MBA, University of Phoenix

Virgin Dones / Associate Professor
PhD, Universidad Interamericana de Puerto Rico

Carlos R. Figueroa-Vega / Associate Professor
MS, Jackson State University

José A Flecha Ortiz / Assistant Professor
DBA, Argosy University

Maria Fonseca Rodriguez / Assistant Professor
DBA, Northcentral University

Evelyn Lopez Gonzalez / Assistant Professor
DBA, Universidad del Turabo

Carmen M. Marín / Professor
DBA, Argosy University

Eulalia Márquez-Martínez / Professor
PhD, Carlos Albizu University

Litza Meléndez-Ramos / Assistant Professor
PhD, Universidad de Extremadura

Sandra Mena / Assistant Professor
PhD, Universidad de León, Spain

Enid Miranda Ramirez / Instructor
MBA, University of New Orleans

Maribel Ortiz-Soto / Associate Professor
PhD, Universidad de Puerto Rico

Angel Ojeda Castro / Associate Professor
DBA, Universidad del Turabo

Pedro Ortiz Santos / Assistant Professor
DBA, Universidad Interamericana de Puerto Rico

Alia E. Pérez-González / Emeritus Professor
PhD, Fordham University

Luz M. Ríos-Negrón / Associate Professor
DBA, Universidad de San Pablo

Francisco J. Rivera-Pérez / Associate Professor
EdD, Universidad Interamericana de Puerto Rico

Isabel Rivera-Ruiz / Professor
PhD, Argosy University

Edgar Rodriguez Gomez / Instructor
MP, Universidad de Puerto Rico

Carlos M. Rosa-Vázquez / Professor
DBA, Universidad del Turabo

Alizabeth Sánchez / Associate Professor
PhD, Autonomous University of Barcelona

María de los M. Santos-Corrada / Associate Professor
PhD, Universidad Complutense, Madrid

César R. Sobrino / Assistant Professor
PhD, West Virginia University, US

Juan Carlos Sosa / Associate Professor
PhD, Universidad de Puerto Rico

Luz Torres / Adjunct Professor
EdD, Universidad Interamericana de Puerto Rico

Juan Valera Marquez / Assistant Professor
DBA, Universidad de Puerto Rico

Carmen Vargas-Segarra / Professor
EdD, Nova University

María Zayas-Ortiz / Professor
PhD, Universidad Interamericana de Puerto Rico

STUDENT ORGANIZATIONS

- Association of Office Administration Students
- Association of Accounting Students
- Association of Administration & Materials Control Students
- Association of Information Systems Students
- Association of Management Students
- Association of Trade Students
- Student Chapter of the Chamber of Commerce

The different student associations in the School of Business and Entrepreneurship are created in order to foster unity and communication among the students, professors and professionals in the Business Administration area. Students have the opportunity to express their ideas and to participate in activities promoting their professional development. This gives students the opportunity to demonstrate qualities and characteristics which contribute to the success of all good employees and citizens. Students participate in activities both within and outside the Institution. Thus, students are offered opportunities to visit companies, to attend conventions and to participate in university competitions related to their profession.

PROGRAMS OF STUDY

ASSOCIATE DEGREE IN BUSINESS ADMINISTRATION IN ACCOUNTING

Graduates of the associate degree in Business Administration in Accounting will be able to coordinate and carry out related rules and practices of accounting activities. Among the activities of the accountant are: preparation of financial statements, cost analysis, assessments, and audits, among others. This rigorous professional, accurate and timely manner produces and provides information to its customers, private and government agencies and the general public, for economic and financial decision making.

Total Credits	**60**
General Education Courses	**24**
Core Courses	**24**
Major Courses	**12**

General Education Courses		**(24 credits)**
ENGL 152	Fundamentals of Reading and Writing	3
ENGL 153	Advanced Communicative English	3
ENGL 231	Research and Writing	3
MATH 199	Quantitative Methods	3
SPAN 152	Fundamentals of Reading and Writing	3
SPAN 250	Writing Techniques	3
SPAN 255	Research and Writing	3
FSBE 105	Freshman Seminar	3

Core Courses		**(24 credits)**
ACCO 111	Introduction to Accounting I	3
ACCO 112	Introduction to Accounting II	3
ACCO 113	Introduction to Accounting III	3
MARK 133	Principles of Marketing	3
COIS 201	Data Processing	3
MANA 230	Organizational Behavior Management	3
STAT 201	Business Statistics I	3
ENTR 360	Entrepreneurship	3

Major Courses		**(12 credits)**
ACCO 301	Intermediate Accounting I	3
ACCO 302	Intermediate Accounting II	3
ACCO 315	Intermediate Accounting III	3
ACCO 303	Cost Accounting I	3
ACCO 305	Income Tax for Puerto Rico I	3
ACCO 350	Computerized Accounting System	3
ACCO 304	Auditing I	3
ACCO 405	Puerto Rico Taxes II	3

ASSOCIATE DEGREE IN BUSINESS ADMINISTRATION IN COMPUTERIZED INFORMATION SYSTEMS

Graduates of the associate degree in Computerized Information Systems will have the knowledge and skills to propose, implement and evaluate comprehensive and efficient information problems of organizations through expert management of information technologies and systems solutions. It offers expertise in the field of programming and analysis and application development.

Total Credits	**60**
General Education Courses	**24**
Core Courses	**21**
Major Courses	**15**

General Education Courses		**(24 credits)**
ENGL 152	Fundamentals of Reading and Writing	3
ENGL 153	Advanced Communicative English	3
ENGL 231	Research and Writing	3
MATH 199	Math for Administrative Studies	3
SPAN 152	Fundamentals of Reading and Writing	3
SPAN 250	Writing Techniques	3
SPAN 255	Research and Writing	3
FSBE 105	Freshman Seminar	3

Core Courses		**(21 credits)**
ACCO 109	Basic Accounting for Non-Accountants I	3
ACCO 110	Basic Accounting for Non-Accountants II	3
MARK 133	Principles of Marketing	3
COIS 101	Introduction to Computer Based Systems	3
MANA 230	Organizational Behavior Management	3
ENTR 360	Entrepreneurship	3
STAT 201	Business Statistics I	3

Major Courses		**(15 credits)**
COIS 102	Programming Principles	3
COIS 350	Structured Design with Object Programming Applications	3
COIS 360	Telecommunication Computer Networks	3
COIS 250	Systems Analysis and Design	3
COIS 290	Information Systems Development Workshop	3

ASSOCIATE DEGREE IN BUSINESS ADMINISTRATION IN MANAGEMENT

The associate degree in Business Administration in Management, enables students to take various administrative positions in business and industry, government agencies or nonprofit organizations. The manager is the person responsible for the efficient management of the company. It is committed to efficiently use the resources of the organization to achieve the same objectives through functions employees to fulfill the mission of the company.

Total Credits	**60**
General Education Courses	**24**
Core Courses	**24**
Major Courses	**12**

General Studies		**(24 credits)**
ENGL 152	Fundamentals of Reading and Writing	3
ENGL 153	Advanced Communicative English	3
ENGL 231	Research and Writing	3
MATH 199	Quantitative Methods	3
SPAN 152	Fundamentals of Reading and Writing	3
SPAN 250	Writing Techniques	3
SPAN 255	Research and Writing	3
FSBE 105	Freshman Seminar	3

Core Courses		**(24 credits)**
ACCO 109	Basic Accounting for Non-Accountants I	3
ACCO 110	Basic Accounting for Non-Accountants II	3
MARK 133	Principles of Marketing	3
COIS 201	Data Processing Principles	3
MANA 230	Organizational Behavior Management	3
MANA 204	Business Law Entrepreneurial	3
STAT 201	Business Statistics I	3
ENTR 360	Entrepreneurship	3

Major Courses		**(12 credits)**
MANA 213	Human Resource Administration	3
MANA 302	Labor Legislation	3
MANA 304	Project Management	3
MANA 321	Supervision and Leadership	3
MANA 340	Operations Management	3

ASSOCIATE DEGREE IN EMERGENCY MANAGEMENT AND DISASTERS RECOVERY

The Associate Degree in Emergency Management and Disaster Recovery consists of 55 credits and has specialized tracks in technical areas of responses with management approach. The program combines courses in management and emergency management with a strong theoretical component. The program covers skills and knowledge required by employers and regulatory agencies.

It also includes preparation courses in FEMA (Federal Emergency Management Agency) Certification in Introduction to Incident Command System (ICS), Introduction to National Incident Management System (NIMS), An Introduction to the National Response Framework (NRF) and other special classes that allow professionals to keep updated in the discipline.

One of the advantages offered by this associate degree is that its contents covers all areas of Federal certification required by FEMA (Federal Emergency Management Agency), DHS (Department of Homeland Security) and the Executive Orders issued by the governor of Puerto Rico.

Total Credits	**54**
General Education Courses	**24**
Core Courses	**18**
Major Courses	**12**

General Studies		**(24 credits)**
FSBE 105	Freshman Seminar	3
ENGL 152	Fundamentals of Reading and Writing	3
ENGL 231	Research and Writing	3
COIS 201	Data Processing	3
SPAN 152	Fundamentals of Reading and Writing	3
SPAN 250	Writing Techniques	3
STAT 201	Business Statistics I	3
SIGN 101	Visual-gestural and Body Language Communication Techniques	3

Professional Education Courses		**(18 credits)**
EMDR 101	Introduction to Emergency Management Mitigation and Preparedness	3
EMDR 102	Introduction to Incident command System	3
EMDR 201	Emergency Management Planning	3
EMDR 203	Occupational Safety and Health	3
EMDR 206	Introduction Emergency Management Response and Disasters Recovery	3
MANA 340	Principles of Production and Operations Management	3

Major Courses Required		**(12 credits)**
EMDR 240	Emergency Preparedness, response and Planning for Hazardous Materials	3
EMDR 245	Weapons of Mass Destruction (WMD)	3
EMDR 250	Disaster Management Plan Development	3
EMDR 260	Internship of Emergency Management I	3

Notes for all programs:

1. The ENGL 152 may require a previous course, according to the score obtained in the placement test or the CEEB English test.
2. The SPAN 152 may require a previous course, according to the score obtained in the placement test or the CEEB Spanish test.
3. COIS courses require to be enrolled in a lab section.
4. The minimum grade point average (GPA) for graduation is 2.30 in major courses and 2.00 in other courses.
5. MATH 199 has a Requisite (MATH 121) or to approve the placement test.

COURSE DESCRIPTIONS

(Courses marked with @ could be offered in both modalities, traditional or on-line.)

ACCO 109
Basic Accounting for Non-Accountants I
Three Credits

Study of basic accounting concepts and principles with the purpose of understand their application through the analysis of financial reports. This considers the decisions making based on the knowledge of basic concepts within an ethical framework that includes: accounting nature, financial statements structure, accounting cycle, income determination for a merchandising business, register control and valuation of accounts and notes receivables, cash and inventories.

ACCO 110
Basic Accounting for Non-Accountants II
Three Credits

Study of basic accounting concepts and principles with the purpose of understand their application through the analysis of financial reports. It focuses the decision-making based on knowledge of fundamental concepts within an ethical framework that includes: nature of the operating assets and their impact on financial reporting; recognition of current liabilities, contingencies and concept of interest; identification, characteristics, importance and effects of long-term debt. The course contains the shareholders' equity concept, components, characteristics and differences between various types of shares, dividends, classification and impact on cash and equity from shareholders and recognize the fundamentals differences between organizational structures such as corporation, partnership and sole proprietorship.

ACCO 111
Introduction to Accounting I
Three Credits

This course introduces the basic principles of accounting theory and practice, emphasizing the sole-proprietorship form of business. Primary areas of study include nature of a business, the accounting equation, the theory of debit and credit, preparation of financial statements, adjusting process, the accounting cycle, special journals, accounting for merchandise business, inventory, internal control for cash procedures, and receivables.

ACCO 112
Introduction to Accounting II
Three Credits

Study the accounting for fixed assets and intangible assets; current liabilities, with an emphasis in payroll accounting system. The course discusses how partnership and corporations are structured and formed. Describe the cash flow activities reported in the statement of cash flows.

ACCO 113
Introduction to Accounting III
Three Credits

Study the accounting for issuance of common stock, preferred stock, and the items reported in retained earnings. The accounting issues related to the long- term liabilities (Bonds, Notes Payables, and Leases). The accounting treatment for investments in Debts and Stock, and the implications to the company. Discussion of the cash flows activities reported in the statement of cash flows. Study the financial statement analysis, and his decision making effects

ACCO 301
Intermediate Accounting I
Three Credits

Study of the general accepted accounting principles according to the presentation of accounting information in the financial statement and related nots. Includes journal entries working papers, adjustments, financial statement, assets and liabilities valuation. It also includes procedures and principles follows in the presentation of the Owners' Equity and income determination.

ACCO 302
Intermediate Accounting II
Three Credits

Study of the general accepted accounting principles according to the presentation of accounting information in the financial statement and related nots. Includes journal entries working papers, adjustments, financial statement, assets and liabilities valuation. It also includes procedures and principles follows in the presentation of the Owners' Equity and income determination.

ACCO 303
Cost Accounting
Three Credits

Study of the roles of accountants in the organization. Is emphasizes the contribution of management accountants in the implementation of strategies related to the value chain and control systems and planning. We present the concept

of ethics of the profession and their potential conflicts. It introduces the terminology and cost purposes emphasizing the relationship of costs and the concept of relevant range. It includes analysis of cost-volume-profit, using different methods to calculate it. It shows the break-even analysis and collaboration in decision making. The course culminates with the presentation and discussion of the systems, job order and process cost system.

ACCO 304
Auditing
Three Credits
A review of accounting theory, auditing procedures, worksheets, internal control and fraud, preparation of financial statements, reports, forms, method and procedures. Attention is given to the nature and purpose of auditing, auditing standards, professional conduct, auditor legal liability and the approach followed in performing audits of financial statements. Special attention is devoted to auditor's decision processes in internal control, auditing sampling, and accumulative audit evidence.

ACCO 305
Income Tax for Puerto Rico I
Three Credits
A study of income tax, its history and its purpose. The tax laws of Puerto Rico, inclusions and exclusions, allowable deductions, practice in filing individual, corporate partnership returns.

ACCO 315
Intermediate Accounting III
Three Credits
This course provides a critical analysis of generally accepted accounting principles (GAAP), concepts, and theory underlying the preparation of financial statements. Emphasis will be placed on current theory and practice. Primary concern is with asset measurement and income determination.

ACCO 350
Computerized Accounting System
Three Credits
This course is designed to teach how the computer can be used as accounting tool. It is not intended to teach any new accounting concepts, but rather how accounting procedures can be applied though computer applications with the use of a general ledger software package. Also included are modules for accounts receivable and payable, and asset management. In introducing the computer as an accounting tool, students will be given the criteria to evaluate accounting software. Students will learn how to use the computer for both general ledger and subsidiary ledger transactions. General journals and special journals will be used. Most work will be completed in the computer lab during class hours.

ACCO 405
Puerto Rico Taxes II
Three Credits
A study of the Puerto Rico Income Tax Law regarding corporations and special partnerships. Also include Municipality Patents Law: Properties Law; Excise Tax Law, State Unemployment Law; State Disability Insurance Law. Several federal laws applicable in Puerto Rico are also included. They are FICA Tax, FUTA Tax, and Medicare law.

COIS 102
Programming Principles
Three Credits
This course is a practical and theoretical introduction to basic programming principles. It includes development of logic, as well as the use of flow charts, structured flow charts and pseudo codes. Students will become familiar with editing and compiling programs.

COIS 201
Data Processing Principles
Three Credits
Introduction to computerized systems, its uses, and benefits in Business Administration. Study of the basic concepts and technical terms in the field of information systems. The course also provides the opportunity for using applications in word processing, spreadsheets and graphics. Requires laboratory.

COIS 250
System Analysis and Design
Three Credits
Study of the systems development cycle, with emphasis on the present system documentation, using the classic tools and techniques as well as the structured ones. It includes the use of these resources for describing the processes, the data flow, data structures, forms design for data gathering and reports. It also discusses data gathering activities and information, progress reports, and the transition from analysis to design.

COIS 290
Information Systems Development Workshops
Three Credits
A practice course in which the student is required to develop a project with a real application. Topics include system analysis, design, programming and implementation of a simple computerized information system.

COIS 350
Structured Design with Object Programming Applications
Three Credits
Principles of programming, with emphasis on commercial applications using the Visual Basic programming language. Studies the use of object programming techniques and the

appropriate documentation that supplements a computer program. Support documentation includes resources such as: TOE's (Task Object Event), flowcharts, hierarchy charts, decision tables, UML's (unified modeling language) and others. The goal of this course is to provide the beginning programmer with complete coverage of all major introductory programming topics. Requires laboratory.

COIS 360
Telecommunication Computer Networks
Three Credits
Course in telecommunications and computer networks, designed for individuals in the field of computerized information systems. The historical development and the concepts, terminology and modern products related to computer networks are described. The criterion for planning, acquisition and installation of computer networks is emphasized. It also includes the study of protocols, software, topologies, and products available. Strategies of centralized and distributed processing are compared.

EMDR 101
Introduction to Emergency Management Mitigation and Preparedness
Three Credits
Accidents and emergency situations have plagued man since the beginning of history and will undoubtedly occur during our conceivable future. Armed with knowledge and skills for managing such occurrences can lessen their impacts on society. This course presents the theories, principles, and approaches to emergency management. The philosophy of Comprehensive Emergency Management will be discussed with the four attendant steps of current FEMA's strategic model. Legal issues involving emergency management will be presented.

EMDR 102
Introduction to Incident command System
Three Credits
This course introduces the Incident Command System (ICS), and provides the foundation for higher level ICS training. The course content describes the history, features and principles, and organizational structure of the Incident Command System. It also explains the relationship between ICS and the National Incident Management System (NIMS). ICS orientation is intended for personnel assigned to an incident or event who have a minimum requirement for understanding ICS. This course will review the ICS organization, the basic terminology, and common responsibilities. It will provide enough information about the ICS to enable the student to work in a support role at an incident or event, or to support an incident from an off-site location.

EMDR 201
Introduction to Incident command System
Three Credits
This course introduces the basic policies, concepts, and procedures of planning and addresses the various federal and state assistance programs. Emphasis is placed on the coordination of damage assessment, preparing documentation, and recovery procedures. Students will be introduced to the emergency management planning process, planning standards, planning techniques, and the steps in the development of a basic emergency management plan, special events contingency planning, debris management plan, and its functional annexes. This course is designed for emergency management personnel who are involved in developing an effective emergency planning system.

EMDR 203
Occupational Safety and Health
Three Credits
This course offers the student with the rationale of providing an occupationally safe and healthy work environment for employees. These skills are needed to be able to work effectively in the area of human resources and employee development as well as industrial relations since law has provided workers with specific safety and health rights.

EMDR 206
Introduction Emergency Management Response and Disasters Recovery
Three Credits
This course provides an overview of hazards theory, emergency management fundamentals and the science of natural and manmade hazards. Both natural and technological hazards are studied with the perspective or response and recovery focus. Some of the topics include response and recovery to earthquakes, tsunamis, volcanoes, floods, wildfires, terrorism, and hurricanes. An analysis of past disasters will be presented along with their impacts on policy formation leading up to the current FEMA all-hazards approach. The role, duties, and importance of the Emergency Manager will be discussed throughout the semester.

EMDR 240
Emergency Preparedness, response and Planning for Hazardous Materials
Three Credits
This course utilizes a modular format where an emergency management department may analyze its current level of competency and choose course modules that will provide the skills needed by its hazardous materials team. Training includes offensive procedures for mitigation of hazardous materials spills, leaks, and exposures. Topics include chemistry, detection devices, advanced recognition and identification, pre-incident planning, incident management,

scene evaluation and termination, terrorism, toxicology, medical surveillance, emergency care, PPE usage and limitations, and decontamination

EMDR 245
Weapons of Mass Destruction (WMD)
Three Credits
This course provides an introduction to the issue of weapons development proliferation, and nonproliferation around the world. We will examine the basic technologies and motivations, and impact of the development of nuclear, chemical, and biological weapons and ballistic missiles on the international security. Will discuss the various international strategies to counter weapons proliferation - treaties, multilateral conventions and informal arrangements. Examine the challenges of weapons proliferation - such as domestic safety, regional stability and security, and transnational terrorism. This will be done through national and regional case studies - where we will discuss actual and potential US and international strategies/response to each case.

EMDR 250
Disaster Management Plan Development
Three Credits
This course will provide a broad introduction to the critical challenges of disaster management and policy. The central purpose of this course is to examine strategies for reducing the hazards posed by disasters. It will focus on what can be learned from the history of disasters, and on how we can apply those lessons to manage future disasters. This course is designed to student from a research or policy perspective and for those who may be charged with responsibility for on-the-scene intervention. It will conclude by examining organizational and individual behavior in high-stress situations. Throughout the semester, particular attention will be paid to how disaster management efforts can increase the vulnerability of some populations or can promote widespread resilience.

EMDR 260
Internship of Emergency Management I
Three Credits
This course integrates the knowledge acquisition in the Associate Degree courses. It applies the management concepts, principles and practices conducting a project within the students' specialization area. Methodology on project management, schedule of activities and task control, formal presentations and group dynamics to deal with management problems is emphasized. It includes an emergency management situation in the context of problem diagnostic and analysis, development of alternative solutions, tools development, implementation of alternatives/tools, and the evaluation of implementation. Requires 60 hours on a practice internship.

ENTR 360
Entrepreneurship
Three Credits
This course provides students the opportunity to apply the basic concepts of small business management using a teambuilding approach with participants from different disciplines. Different aspects for the small business management will be studied, emphasizing the formulation of solutions applicable to specific entrepreneurship problems. The preparation of a group project including strategies and tactics for the development and administration of a small business will be required.

FSBE 105
Freshman Seminar
Three Credits
The course provides the students a series of activities, techniques and educative experiences to bring the mean to identify and develop personal and learning skills. Students will learn to know themselves and develop self-esteem to accomplish personal and academic success. The students will use the computer as a method for the teaching-learning process.

MANA 204
Business Law Entrepreneurial
Three Credits
A study of the legal aspects of common ethical behavior that affects business transactions with emphasis on Puerto Rican legislation. Special attention is given to contracts, sales, and marketable securities, transfer of property, deeds and mortgages

MANA 213
Human Resource Administration
Three Credits
A study of the theory and application of fundamental principles of human resources management in an enterprise. The dynamic role of the manager and his relationship to personnel. The course also looks at issue in human resources management and their relation to the general objectives of the enterprise.

MANA 230
Organizational Behavior Management
Three Credits
Learn the basic principles of management: planning, organizing, directing and controlling incorporating the fundamental concepts of organizational behavior. Analyzes management processes by integrating the basic principles. Learn how individuals and groups impact the behavior within an organization. Includes classical and contemporary theories of organization; interpersonal and organizational behavior, motivation, communication, leadership theories and processes of decision-making. It includes both the theory

and practical application of organizational behavior in business. It is a field of systematic study that focuses on improving productivity, quality and helping professionals to develop methods to empower people and to design and implement programs of change, elements of globalization and diversity. Provides guidance to managers in the creation and development of an ethical and healthy working environment.

MANA 260
Managerial Strategies
Three Credits
Study of special topics and their application on the pharmaceutical industry. The concept of total quality, the importance of internal and external clients, the use of methods and tools to problems solutions and its prevention will be discussed. The course explains and demonstrates the benefits of implementing a continuous improvement strategy achieve business and personal goals.

MANA 302
Labor Legislation
Three Credits
To study the fundamental aspects of labor laws at state and federal levels. Analyze the rules governing employer's labor relations, protective labor legislation, personnel law, social security legislation of the labor law and health and safety at work.

MANA 304
Project Management
Three Credits
Teach everything to need to know how work successfully in today's exciting project management environment. How to organize as well as how to manage effective project teams, from planning and scheduling to cost management. Revised concepts now closely align with the PMBOK (Project Management Body of Knowledge) framework and approach to ensure the students are learning today's best practices. Coverage of the latest business developments and challenges acquaint students with issues such as project constraints, stakeholder issues, and the project charter, how projects relate to an organization's strategic plan, and more. The students learn the keys to effective communication both within and outside of a team. A wealth of new and revised intriguing cases inspire discussion and debate, while new real world vignettes give students first-hand insights into how to apply project management in the workplace.

MANA 321
Supervision and Leadership
Three Credits
This course provides a general view of the concepts, methods, and modern supervisory techniques needed to become efficient business managers. It emphasizes the supervisor's responsibility and authority, and highlights the role and functions of the supervisor. Theory is combined with practical observations, so that the student can become aware of all the fiscal, human and psychological resources that the supervisor must use in order to administer efficiently and effectively.

MANA 340
Operations Management
Three Credits
Analysis, planning and control of production facilities and operations. Includes the use of techniques and models for decisions related to: demand forecasts, product mix, plant location, quality control, inventory control, and the human factor in the production process.

MARK 133
Principles of Marketing
Three Credits
The processes involved in the distribution of goods and services from producer to consumer. Study the comprehensive system of marketing, including management-controlled variables: product, price, promotion and distribution; and external variables such as government, the economy and society. Also studies consumer behavior, modern marketing trends, market definition, placement and information systems, among others.

STAT 201
Business Statistics I
Three Credits
This is an introductory statistics course dealing with frequency distribution, presentation of statistical data, measure of central tendency, and dispersion. The concept of probability, and probability distributions used commonly in business analysis is emphasized.

SCHOOL OF EDUCATION

VISION

In collaboration with the broader Universidad del Turabo community and the professional community in school districts, the School of Education seeks to prepare professionals who are able to meet the challenges of education in a global society that is changing, diverse, and technologically oriented.

The School of Education will provide a high quality, student-centered and innovative environment to prepare reflective, collaborative and highly effective educational leaders who can address the needs of students and communities in Puerto Rico and abroad.

The Undergraduate Education Program, conscious of its responsibility in improving the quality of education, provides teacher candidates with a solid preparation in the field of education, as well as with the academic background needed to enhance their general professional competence and their teaching skills.

MISSION

The School of Education is committed to developing reflective, collaborative and highly effective educational leaders. We view teaching both as an art and as a science, learning as a reciprocal process, and service as a responsibility. Thus, we provide a learning environment that promotes individual creativity and fosters the synthesis of theory and practice. We facilitate the development of leaders who are sensitive to individual differences, to moral and equity issues and who, in their work as educators, will actively shape educational organizations.

The School of Education offers Bachelor's Degree programs in Elementary Education, Secondary Education, Special Education and Physical Education. The School of Education serves a diverse student body at the undergraduate and graduate levels on campus, off campus, and at several sites in the United States. We regard the diversity of our many units as a strong point which adds value to our identity.

The School of Education has a tradition of providing an educational environment that is conducive to interaction, innovation, reflection and service. The essence of our School is its people. From faculty and staff, students and alumni to community partners in private and public schools, the intense commitment and great sense of pride and responsibility in our role as educators is indicative of the core values sustained by the School of Education.

In carrying out our mission, we value:

- Excellence and innovation in teaching and learning
- Integration of pedagogical theory and practice
- Professional and personal integrity and responsibility
- Creativity and the development of significant projects that serve as examples in our field
- Active construction and application of knowledge
- A culture that stresses intellectual stimulation, academic excellence and personal dignity
- Teamwork and collaboration with schools, districts, institutions of higher education and organizations in Puerto Rico and abroad
- A sense of community that is fostered by pride in the accomplishments of each of its members and programs

SPECIALIZED ACCREDITATIONS

CAEP Council for the Accreditation of Educator Preparation

Teacher preparation programs are accredited by the Council for the Accreditation of Educator Preparation (CAEP).

The Program offers bachelor's degrees in elementary education with majors in: preschool education; primary education (K-3); elementary education (fourth to sixth grade), and teaching of English as a second language. The bachelor's degree in secondary education offers majors in biology, chemistry, English as a second language, general science, history, mathematics, social science, Spanish, and vocational industrial education. In addition, there is a bachelor's degree in special education with majors in speech, language, hearing impairments, and mild handicaps.

The objectives of the Division of Undergraduate Education are to enable students to:

1. Understand the importance of the social and personal mission of the teaching profession.
2. Accept changes that will lead to a broadening of their knowledge and experience as teachers and the capacity to use that knowledge effectively in the teaching-learning process.
3. Analyze social, psychological and philosophical foundations of education.
4. Choose and effectively use resources and materials to improve their teaching methods.
5. Understand and use different educational strategies and techniques effectively.

6. Be exposed to a variety of experiences that will help them to develop the skills, attitudes and abilities needed to become agents of change in the field of education.
7. Develop awareness of the responsibility of keeping abreast in their fields of specialization.
8. Understand, revise and enrich the curriculum in their area of specialization.
9. Be able to incorporate technological innovations into their personal lives and their teaching.
10. Develop the skills that will make them lifelong learners.
11. Understand and use the Standards for Excellence in Teaching and the constructivist approach.

PROGRAM IN PHYSICAL EDUCATION, SPORT STUDIES AND MOVEMENT

The Program in Physical Education, Sports Studies and Movement is committed to the development of competent physical education teachers, as well as athletics programs, health-related programs, and student services.

Strong efforts are centered on providing the teacher candidate with the scientific foundations, sports skills and historical perspective of this field, within the general objectives of education.

The intercollegiate, intramural and community services programs are an integral part of the Program, promoting effective management of physical facilities, as well as of economic and human resources. This integration provides an excellent experience in the development of a complete professional in this field.
The objectives of the Physical Education Program are to enable the student to:

1. Develop professional knowledge of the current tendencies and developments in physical education.
2. Analyze the legal framework that regulates the physical education field.
3. Develop techniques, strategies, and procedures in evaluation applied to physical education.
4. Develop policies and educational programs in adapted physical education.
5. Develop techniques, procedures, and administrative practice in the administration of physical education, recreation and interschool competition.
6. Help to improve the quality of life for society.
7. Promote students' use of computers and audio-visual equipment in the process of teaching physical education and in the management of sports events.
8. Develop the theory, conceptual knowledge, technical skills, and attitudes needed to become an effective physical education teacher.
9. Develop knowledge of the scientific foundations of physical education and sports.

FACULTY

Wilfredo Alicea Colón / Associate Professor
MEd, Universidad de Puerto Rico

Gladys Betancourt-Santos / Professor
EdD, Universidad Interamericana de Puerto Rico

Angela Candelario-Fernández / Professor
PhD, Fordham University

Lymari Candelario-Piñeiro / Assistant Professor
EdD, Universidad Interamericana de Puerto Rico

Rafael Cartagena-Rodríguez / Professor
EdD, Nova University

Evelyn Castro-Silva / Assistant Professor
MA, Universidad Metropolitana

Dennis E. Cumpiano-Carrero / Associate Professor
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Luis V. Dieppa-Roque / Assistant Professor
MS, Herbert Lehman College

Olga Espinosa-Dávila / Associate Professor
MA, Universidad de Puerto Rico

Jorge H. Garófalo-Pastrana / Professor
PhD, Touro University International

Angel M. Ginorio-Martínez / Assistant Professor
MEd, Inter American Univesity

Juan M. González-Lamela / Professor
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MA, Ohio State University

Dulcinia Nuñez-Santos / Professor
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PhD, Southern Illinois University

Eileen Rodríguez-Domenech / Associate Professor
MA, Florida State Unversity

Israel Rodríguez-Rivera / Instructor
MEd, Pontificia Universidad Católica de Puerto Rico

Adlin Solá-Candelario / Assistant Professor
MA, Universidad del Turabo

PROGRAMS OF STUDY

ASSOCIATE DEGREE IN PERSONAL TRAINING

The Associate Degree in Personal Training is a program that provides professional formation to future trainers, sport leaders working in sport leagues or community organizations, or athlete's parents. The program facilitates the development of candidate's competencies towards an effective role, an ethical behavior and an understanding about the need of equity and inclusion in physical training field. The learning experience is supported by the acquisition of a theoretical (science) and practical (physical activity) framework of the required content to become a competent as a trainer from an ethical and behavioral code. The code is based on the social responsibility of protecting the safety, wellbeing and the defense of each person's rights participating in different personal training programs. The program is guided by the regulations for trainer studies of the National Strength and Conditioning Association (NSCA) y el American Council on Exercise (ACE).

Total Credits	**60**
General Education Courses	**21**
Core Courses	**39**

General Education Courses		**(21 credits)**
FSED 105	Freshman Seminar	3
SPAN 155N	Introductions to Writing/Reading	3
ENGL 154N	Basic Communicative English	3
SPAN 250N	Writing Techniques	3
ENGL 155N	Advanced Communicative English	3
MATH 120E	Introductory Algebra Enhanced	3
MATH 120EL	Introductory Algebra Enhanced Lab	0
INSC 101N	Integrated Natural Sciences I	3

Core Courses		**(39 credits)**
EDUC 171	Human Growth and Development	3
PERT 102	Introduction to Sport Massage Technics	3
PERT 103	Programs for Multiple Exercise	3
PERT 104	Strategic Management for the Personal Trainer	3
PERT 105	Advance Evaluation and Management of Athletic Injuries	3
PERT 106	Design Programs for Cardiovascular and strength training	3
PERT 107	Special Exercise Program Design	3
PERT 108	Analyzes of Current Issues Personal Training	3
PERT 109	Clinical Practicum in Personal Training	3
SPRT 102	Methodology for Training	3
SPRT 106	Fundamental Analyses of Sport Movement	3
PHED 220	Human Anatomy and Exercise Physiology	3
PHED 210	Health, Hygiene and Nutrition	3

ASSOCIATE DEGREE IN SPORTS TRAINING

The Associate Degree in Sport Training is a program that provides professional formation to future trainers, sport leaders working in sport leagues or community organizations, or athlete's parents. The program facilitates the development of candidate's competencies towards an effective role, an ethical behavior and an understanding about the need of equity and inclusion in sports. The learning experience is supported by the acquisition of a theoretical (science) and practical (sport) framework of the required content to become a competent as a trainer from an ethical and behavioral code. The code is based on the social responsibility of protecting the safety, wellbeing and the defense of the athlete's rights participating in different sport programs. The program is guided by the regulations for the initial and sport development levels of trainer studies of the American Sport Education Program (ASEP) and National Association of Sport and Physical Education (NASPE) in the United States, and the Aligning a European Higher Education Structure in Sport Science (AEHESIS) in Europe.

Total Credits	**60**
General Education Courses	**21**
Core Courses	**12**
Concentration Courses	**27**

General Education Courses		**(21 credits)**
FSED 105	Freshman Seminar	3
SPAN 155N	Introduction to Writing/Reading	3
ENGL 154N	Basic Communicative English	3
SPAN 250N	Writing Techniques	3
ENGL 155N	Advanced Communicative English	3
MATH 120E	Introductory Algebra Enhanced	3
MATH 120EL	Introductory Algebra Enhanced Lab	0
INSC 101N	Integrated Natural Sciences I	3

Core Courses		**(12 credits)**
EDUC 171	Human Growth and Development	3
PHED 220	Human Anatomy and Exercise Physiology	3
PHED 222	Swimming and First Aid	3
PHED 355	Evaluation and Research in Physical Education	3

Concentration Courses		**(27 credits)**
SPRT 101	Sport Pedagogy	3
SPRT 102	Methodology for Training	3
SPRT 103	Physiology for Sport Fitness Performance	3
SPRT 104	Methodology of Physical Training	3
SPRT 105	Philosophical and Ethical Principles for Coaches	3
SPRT 106	Fundamental Analyses of Sport Movement	3
SPRT 108	Sport Management for Coaches	3
SPRT 109	Concepts of Sport Psychology	3
SPRT 110	Sport Coaching Practicum	3

ASSOCIATE DEGREE IN SIGN LANGUAGE INTERPRETATION

The Associate Degree in Sign Language Interpreting will be the first academic program at this level in Puerto Rico. The Program will provide theoretical, academic and technical training to those students desiring to pursue a degree in interpreting for the Deaf. It includes classroom lectures, laboratory practice skills and field experience in the deaf and hearing community. The structure of the program provides for the students to have opportunities for incidental learning. The program is focused on the student who does not have an academic degree and is interested in developing sign language and interpreting skills to work in immediate settings such as education, vocational and community settings. The program includes courses in liberal arts which are important for the students to be able to interpret in any setting.

Total Credits	**67**
General Education Courses	**27**
Core Courses	**37**
Electives Courses	**3**

General Education Courses		**(27 credits)**
FSED 105	Freshman Seminar	3
SPAN 155N	Fundamentals of Reading and Writing	3
ENGL 154	Basic Communicative English	3
ENGL 155	Advanced Communicative English	3
MATH 120E	Introductory Algebra Enhanced	3
MATH 120EL	Introductory Algebra Enhanced Lab	0
HUMA 115	Western Civilization I	3
HUMA 116	Western Civilization II	3
INSC 101N	Integrated Natural Sciences I	3
HIST 253N	History of Puerto Rico Compendium	3

Concentration Courses		**(37 credits)**
SIGN 102	Sign Language I: Foundations, Spelling and Numbers	3
SIGN 102 – L	Sign Language I: Foundations, Spelling and Numbers Lab	1
SIGN 106	Visual gestural communication and Classifiers	3
SIGN 106 – L	Visual gestural communication and Classifiers Lab	1
SIGN 103	Sign Language II: Conversations	3
SIGN 103 – L	Sign Language II: Conversations Lab	1
SIGN 104	Sign Language III: Narratives	3
SIGN 104 – L	Sign Language III: Narratives Lab	1
SIGN 122	Sign Language Discourse	3
SIGN 203	Introduction to Sign Language Interpreting	3
SIGN 302	Ethical and Professional Principles in Interpreting	3
SIGN 400	Simultaneous Interpretation	3
SIGN 401	Interpretation Internship I	3
SIGN 402	Interpretation Models	3
SIGN 407	Educational Settings Interpretation	3

Elective Courses		**(3 credits)**
SIGN 416	Psychosocial Aspects of Deafness	3
SIGN 405	Interpreting Idioms and Culture	3

COURSE DESCRIPTIONS

(Courses marked with @ could be offered in both modalities, traditional or on-line.)

EDUC 171
Human Growth and Development
Three Credits
The course centers on the study of psychological thought related to growth and development from birth through adolescence, and its implications for the teacher and the school. Changes that occur in human beings from the moment of conception and throughout the different stages of life, such as prenatal, infancy, childhood, adolescence and adulthood, are studied from the physical, psychomotor, social, psychological, and moral viewpoints. Ten hours of classroom observations are part of the requirements.
Requisites: EDUC 106

FSED 105
Freshman Seminar
Three Credits
Course designed as a tool to assist college freshmen in achieving the adjustment needed to survive in higher education. It consists of a series of activities and educational experiences aimed at providing the first year students with study skills needed for academic development. It also provides the students with the personal skills needed in making decisions that will result improving self-esteem, self-recognition and the wish to be successful.

MATH 126
Fundamental Topics in Mathematics II
Three Credits
This course includes problem-solving, set theory, logic, geometry, measurement, probability, statistics, theory of numbers, and fundamental topics for students of the Schools of Education, Humanities and Office Administration.

PERT 102
Introduction to Sport Massage Technics
Three Credits
This class will have a theory and practical sessions. The students will learn about the concept and history related to massage. Each concept will teach the effects of massage, the benefits, indication and contraindication, the importance of the student and client posture in each massage technique. Also the class will discuss the use of material and equipment that is needed in each modality.

PERT 103
Programs for Multiple Exercises
Three Credits
The course exposes the student to different alternate modes of training to stimulate the different physiological systems of the human body. These exercises stimulate adaptations of the cardiovascular and musculoskeletal systems, in an effective and varied way, to these exercises.

PERT 104
Strategic Management for the Personal Trainer
Three Credits
This course is intended to develop skills and knowledge necessary to develop a personal training business. Basics you should know the personal trainer, personal qualifications for successful practice as a personal trainer, mission and development work plan, how to develop an effective program of exercises appropriate and individualized.

PERT 105
Advance Evaluation and Management of Athletic Injuries
Three Credits
This course consists of theory and practice of the procedures and techniques of evaluation, assessment and value of acute and chronic athletic injuries of the human body (upper and lower extremities). Non traumatic pathologies will be studied, as well as mechanical injuries, muscular skeletal and dermatological disorders.

PERT 106
Design Programs for Cardiovascular and Strength Training
Three Credits
This course is designed to teach students to develop, implement and evaluate training programs on strength and resistant training, the student will learn to create strategies and plan the physical loads through various systems of modern strength and resistant training. The student will have a theoretical and practical training which will develop plans to achieve an improvement in athletic performance for both collective and individual sports.

PERT 107
Special Exercise Program Design
Three Credits
The class will discuss the exercise prescription and health promotion for especial population and will use the guidelines by the American College of Sports Medicine (ACSM) and the National Strength and Conditioning Association (NSCA). The students will also learn about chronic conditions that require especial and individualize attention.

PERT 108
Analyzes of Current Issues Personal Training
Three Credits
The course analyzes various personal training issues facing Puerto Rico and the world today. Focus is placed toward the analysis and discussion of contemporary issues related to health, physical fitness, and training, and its impact in training methods of personal training.

PERT 109
Clinical Practicum in Personal Training
Three Credits
This course offers the student a practical experience, which integrates with theoretical courses under the direct supervision of a professional. These experiences will take place during the normal working hours of the wellness center of the university. The student will have active participation in the center performing personal fitness duties for the university's community. The student will also have active participation in administrative and organizational areas in personal fitness.

PHED 210
Health, Hygiene and Nutrition
Three Credits
The course covers the theory and practice of the components of wellness and physical fitness lifestyles, once medical records and health risk profiles are developed, and physical fitness levels are established. Students are exposed to information, activities, techniques and strategies to obtain and maintain acceptable levels of physical fitness that allow an effective life. Lifelong sports, weight control, stress management, and nutritional theories will be discussed.

PHED 220
Human Anatomy and Exercise Physiology
Three Credits
The course comprehends the study of gross human anatomy and the physiological changes in the different body systems during physical activity. Joints movement and muscular action are studied together with basic mechanic principles applied to body movements in different sports.

PHED 222
First Aid and Swimming
Three Credits
The course covers the theory, methodology and practice of swimming and first aid. Swimming styles, such as freestyle, backstroke, and breaststroke, are emphasized. Survival modalities such as back and side sliding are practiced as well. Basic techniques of first aid, in accordance with American Red Cross guidelines, are discussed and practiced.

PHED 355
Evaluation and Investigation in Physical Education
Three Credits
Throughout the course students gain knowledge about different techniques and methods in measurement, assessment, evaluation and investigation processes, in relation to relevant objectives in Physical Education. Data from tests are statistically evaluated by students, who are also initiated in basic research methodology.

SIGN 102
Sign Language I: Foundations, Spelling and Numbers
Three Credits
The course is designed for the student who does not have previous Sign Language experience. The purpose of the course is to develop receptive and expressive skills guided to the development of basic dialogue instructed in a functional scenario. The dialogues are geared to conversations related to: introducing one-self, exchanging personal information, talking about our surroundings, and indicating where you live, all related to daily interactions. Students will also learn about the Deaf community and their culture.

SIGN 102 – L
Sign Language I: Foundations, Spelling and Numbers Lab
One Credit
The course is designed for the student who does not have previous Sign Language experience. The purpose of the course is to develop primarily receptive skills as well as expressive skills guided to the development of basic dialogue instructed in a functional scenario and to development strong skills in finger spelling and numbering. The dialogues will be geared to conversations related to: introducing one-self, exchanging personal information, talking about our surroundings, and indicating where you live, all related to daily interactions. Students will also learn about the Deaf community and their culture.

SIGN 106
Visual gestural communication and Classifiers
Three Credits
This course will develop Sign Language skills through the use of descriptive classifiers and non-manual signals. It will assist the student in acquiring fluent fingerspelling and the use of visual receptive and expressive skills. It will also provide concentrated instruction and practice in cardinal and ordinal numbers as well as number incorporation. A brief history of the different manual alphabets in different countries will be included.

SIGN 106 – L
Visual gestural communication and Classifiers Lab
One Credit
This course will develop Sign Language skills through the use of descriptive classifiers and non-manual signals. It will assist the student in acquiring fluent fingerspelling and the use of visual receptive and expressive skills. It will also provide concentrated instruction and practice in cardinal and ordinal numbers as well as number incorporation. A brief history of the different manual alphabets in different countries will be included.

SIGN 103
Sign Language II: Conversations
Three Credits
The course is designed for the student who have previous Sign Language experience. The purpose of the course is to develop abstract concepts and to express themselves about issues outside the classroom setting. In this course they will also develop narratives and how to locate objects and persons. The students will have the opportunity of learning cultural aspects of the Deaf community. They will also learn conversational strategies and how to keep the attention between sign language users.

SIGN 103 L
Sign Language II: Conversations Lab
One Credit
The course is designed for the student who have previous Sign Language experience. The purpose of the course is to develop abstract concepts and to express themselves about issues outside the classroom setting. In this course they will also develop narratives and how to locate objects and persons. The students will have the opportunity of learning cultural aspects of the Deaf community. They will also learn conversational strategies and how to keep the attention between sign language users.

SIGN 104
Sign Language III: Narratives
Three Credits
The course is designed for the student who has already Sign Language skills. The purpose is to develop the linguistic abilities necessary to explain ideas or concepts, illustrate how and why things are and work. Will help develop ability to translate from written text to Sign Language. The students will use Sign Language to express experiences, stories, and other aspects of the narrative. The knowledge of the linguistic vocabulary aspects and cultural information is presented by the Sign Language as primary language and the Spanish will be the secondary language.

SIGN 104 L
Sign Language III: Narratives Lab
One Credit
The course is designed for the student who has already Sign Language skills. The purpose is to develop the linguistic abilities necessary to explain ideas or concepts, illustrate how and why things are and work. Will help develop ability to translate from written text to Sign Language. The students will use Sign Language to express experiences, stories, and other aspects of the narrative. The knowledge of the linguistic vocabulary aspects and cultural information is presented by the Sign Language as primary language and the Spanish will be the secondary language.

SIGN 122
Sign Language Discourse
Three Credits
This course will assist student to gain an understanding of discourse, recognize features of discourse used in American & Puerto Rican Sign Language such as register, spatial mapping, prosody, discourse structures, rhetorical analysis, involvement and interaction strategies, coherence and cohesion, framing, and enhance their own use of American & Puerto Rican Sign Language through incorporation of those features. The laboratory will provide an interactive experience in environments in which the students will have the opportunity to observe features of American and Puerto Rican Sign Language discourse explored in class.

SIGN 203
Introduction to Sign Language Interpreting
Three Credits
This course will provide the students the opportunity to know the history of the interpretation, the terminology used in the field and the competence that a sign language interpreter has to have. Also they will learn basic ethical concepts, dressing codes and the diverse work scenarios. The students will have to opportunity to watch demonstration in the class room and discuss different cases during the semester.

SIGN 302
Ethical and Professional Principles in Interpreting
Three Credits
Interpreters are often in situations that may conflict with their own value system. This course will provide an exploration of the personal ethics and values that influence the decision-making process. Students will: identify the source of conflicts; analyze the situation from the perspectives of the deaf clients, agency and interpreter, and make recommendations for action. Students will examine moral considerations and ethical systems, address power relationships between the non-deaf interpreter and the Deaf Community, and incorporate their impact in functioning as facilitators of communication. Students will use case studies

to explore issues, make recommendations and discuss the consequences of each decision.

SIGN 400
Simultaneous Interpretation
Three Credits
This hands-on course will provide in-depth study and practice of interpretation through the understanding and use of the simultaneous model of interpretation. Students will further develop requisite skills such as text analysis, mind mapping/visualization, multi-tasking strategies, prediction and anticipation. They will further be exposed to process management skills, and will enhance their use of tools for self-analysis and peer feedback. Skills in both voice-to-sign and sign to voice are studied and practiced during class work.

SIGN 401
Interpretation Internship I
Three Credits
This hands-on course will provide in depth practice of Sign Language interpretation through the understanding and use of consecutive and simultaneous modes of interpretation and transitioning to real life scenarios. Students will build skills and knowledge in live settings through continued practice of discourse analysis, visualization, process management skills and tools for self-analysis and peer feedback. Students will be assigned to various scenarios to practice voice-to-sign and sign-to-voice skills with various levels of complexity and registers.

SIGN 402
Interpretation Models
Three Credits
This course will provide further in-depth study and practice of Sign Language interpretation through the understanding and use of the simultaneous mode of interpreting. Students will focus on both individual and team interpreting and will work with selected team-mates in two separate rotations. They will compare transliteration and interpretation and will practice both methods. They will review the business of interpretation and the settings in which interpreters' work, as they prepare to begin interpreting to work in the field. Deaf individuals will be invited to class to participate as the audience for interpreting practice.

SIGN 405
Interpreting Idioms and Culture
Three Credits
This course is designed for the interpreting student to be able to list and study many of the different cultural idioms in Puerto Rico and other Spanish speaking communities. Through the use of comparison and analysis of traditional and typical phrases, the student will be able to look for meaning in various contexts. This course will help the student with the development of analytic thinking to be used in any interpreting situation of idiomatic phrases. Also, the student will analyze songs, poetry and theater. Students will have both didactic and practice experiences in the classroom.

SIGN 407
Educational Settings Interpretation
Three Credits
This course designed for the advanced interpreting student. The course has the purposed of increasing the knowledge of interpreting students who wish to work in the education field. They will have the opportunity to know the laws that apply to consumes and to interpreters in the different levels of education. Students will have the opportunity to know the administrative processes of special education including COMPU meetings and PEI development. They will learn the vocabulary related to school assignments in the elementary, intermediate, secondary, and university levels.

SIGN 416
Psychosocial Aspects of Deafness
Three Credits
This course will study the psychological, emotive and social impact of the hearing loss through the cycle of live. Role consideration of the interpreter to make non-professional advocacy in the rehabilitative process of the people who has hearing loss and their families.

SPRT 101
Sport Pedagogy
Three Credits
Study of the theory and practice on the process of teaching and learning of the sport in the tactical, technical aspects and mental skills. It emphasizes itself to know the media and teaching methods of the sports skills as the organization of a session training for the children and young athletes.

SPRT 102
Methodology for Training
Three Credits
Study of the principles and methods of training for childlike and youthful in practice of the sport. It understands a theoretical perspective on the capacity of sports performance, the phases of sports formation, the demands of controls and the competitions of the children and young.

SPRT 103
Physiology for Sport Fitness Performance
Three Credits
It studies the biological bases of the effects of the physical exercise in the training in the youthful and childlike ages. Basic principles for the improvement of the physical capacities with a focus in the prevention of the inconveniences by excessive loads in the sports training are established. It studies the biological bases of the effects of the physical exercise in the training in the youthful and childlike ages. Basic principles for the improvement of the

physical capacities with a focus in the prevention of the inconveniences by excessive loads in the sports training are established.

SPRT 104
Methodology of Physical Training
Three Credits
It understands the study on the media and methods of the conditioning of the physical capacities and coordinative in the sports preparation of the youthful and childlike athletes. As an orientation in the planning and organization of the loads of optimum training by its phases of biological matured.

SPRT 105
Philosophical and Ethical Principles for Coaches
Three Credits
Study of the ethical and philosophical principles of the behavior that their compliance they cause they are a successful coach for the integral development of the children and youths in the motivation of their sports practice. It understands the development of a code of ethics and social responsibility with the development of the equity, inclusion and solidarity of the sports programs.

SPRT 106
Fundamental Analyses of Sport Movement
Three Credits
Study of the bases to understand the analysis of the mechanics of the movement in the sports technique and how to utilize you said know-how in order to improve the performance of the skills identifying and correcting the errors in the execution of the athletes.

SPRT 107
First aid for Specific Sport Injuries
Three Credits
Study of the bases and guides of the intervention protocols in emergency situations case in wounds you specify of the sports practice. As the management of a prevention strategies series in wounds by sport, the reduction of the risks of the practice and the development of a contingency plan.

SPRT 108
Sport Management for Coaches
Three Credits
Study of the organization and administration of the childlike sports programs and youthful as for devising a compatible philosophy with the objectives for the integral development of the children and young. Establishing health risks reducing programs and negligence, plans of enlarging the economic incomes and the organization of sports events.

SPRT 109
Concepts of Sport Psychology
Three Credits
It understands the introduction to the study of the conduct of the athletes in terms of the motivation and learning, the management of the anxiety, the techniques of relaxation and the planning of the mental training.

SPRT 110
Sport Coaching Practicum
Three Credits
Includes an internship in their field of sport in a club or federation community with children and youth. Emphasis is placed on planning the training sessions, organization of practices such as learning the technical skills and tactics as the application of physical loads.

JOSÉ DOMINGO PÉREZ SCHOOL OF ENGINEERING

SCHOOL OF ENGINEERING DISTINGUISHED PROFESSOR

William R. Dawes, Jr., Ph.D.

DOE SAMUEL P. MASSIE CHAIR OF EXCELLENCE

Roberto Lorán, Ph.D.

OVERVIEW OF THE SCHOOL OF ENGINEERING

Recognizing the need for engineering professionals in Puerto Rico's accelerating economic environment, in August, 1990 the Ana G. Méndez University System (AGMUS) Board of Trustees approved in August, 1990, the establishment of a School of Engineering at the University of Turabo. The José Domingo Pérez (JDP) School of Engineering started with an initial enrollment of 75 students in Academic Year (AY) 1990/91 and currently offers, certificate and associate degrees in technology, Bachelor's degree programs in Mechanical Engineering, Electrical Engineering, Computer Engineering and Industrial and Management Engineering, and Master of Science degree in Administration of Telecommunications and Network Systems in day and evening sessions. The School is committed to the success of every student and pursues this goal by offering small classes taught by highly qualified faculty, a wide range of student services, modern facilities and equipment, and opportunities for undergraduates to participate in faculty-directed research, special design projects and industrial internships.

The JDP School of Engineering is housed in the modern Sandia National Laboratories Engineering Building, named in recognition of the support provided by the U.S. Department of Energy. This facility includes classrooms, instructional and research laboratories, offices for faculty and staff, meeting and conference rooms, and study rooms. It was occupied in August of 1992. The building was expanded in 1998 to house seven Electrical Engineering laboratories designed for instructional and research use. In April 2010 was inaugurated the third phase by adding four laboratories, two classrooms, faculty, administrative and student associations offices and, as well as a study room.

The JDP School of Engineering has three engineering academic departments:

- Department of Mechanical Engineering
- Department of Electrical and Computer Engineering
- Department of Industrial and Management Engineering

In addition, the José Domingo Pérez School of Engineering (JDPSOE) has two institutes focused on certificate, associate and Master's degrees in areas of advanced technology

- Institute of Engineering Technology
- Institute of Telecommunications

VISION

The vision of the JDP School of Engineering is to become the school of choice for all students interested in a technology or engineering degree, and to be recognized for its excellence in teaching and research.

MISSION

The mission of the JDP School of Engineering is:

- To provide our students at all degree levels, certificate, associate, bachelor and graduate, with an excellent education that allows them to become competitive at a national level in their chosen field of expertise, and responsive to the needs of their communities.

- To serve the community through scholarly activities at the pre-college and college levels, through research and development, and through programs that serve the needs of industry.

SPECIALIZED ACCREDITATIONS

ABET Engineering Accreditation Commission

Baccalaureate programs in Mechanical Engineering, Electrical Engineering, Computer Engineering, and Industrial and Management Engineering are accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org.

Technology Curriculum

The JDP School of Engineering offers academic programs leading to Certificate degrees in Electrical Technology and Renewable Energy, and Computer Technology and Networks, Associate degrees in Mechanical Engineering Technology, Electronic Engineering Technology, Quality Control Engineering Technology, Plastic Engineering Technology and Computer Technology and Networks. These curricula provide the student with the necessary skills in mathematics, science, and communications to pursue a technical career successfully.

The program curricula of the Engineering Technology have many aspects in common. The content of the first two semesters are one hundred percent similar. Students will find that both written and oral communication skills are emphasized in all programs.

The full-time associate degrees students who follow the recommended course schedules can complete the computer technology or engineering technology curriculum in 4 semesters (2 years) Students of the certificate in Computer and Network Technology can complete their program in a period of eighteen months. While students of the Certificate Program in Electrical Technology and Renewable Energy will be able to do it in that one-year Program duration for part-time and transfer students will vary, based upon course load and previous course work.

Academic Advising

All technology students are referred to the Engineering Advising Office to assure proper course sequence with respect to Requisites. The Technology Advising Sheet (please refer to the end of the catalog for a copy) is used for this purpose. As a supplemental activity, all technology students are encouraged to visit the director of technology programs to discuss progress, academic goals, career goals and professional aspects of the technology programs.

Course Policy

Requisites

The JDP School of Engineering enforces the Requisites in its Certificate and Associate degrees curriculum. Students who register for a course for which they do not have the necessary Requisites will be dropped from the course before the end of the term, and will be assigned a grade of WA.

Graduating Student Profile

Students that complete any of the technology programs at the Universidad del Turabo develop, as a minimum, the following characteristics:

- An ability to apply knowledge of mathematics, science, and technology
- An ability to repair systems, components, or processes to meet desired needs
- An ability to function on multidisciplinary teams
- An ability to analyze and interpret data
- An understanding of ethical responsibility
- An ability to communicate effectively
- A recognition of the need for, and an ability to engage in life-long learning
- A knowledge of contemporary issues
- An ability to use the techniques, skills, and modern tools necessary for technical practice

INSTITUTE OF ENGINEERING TECHNOLOGY

Nelson Martínez Ortiz, Director
MBA, University of Turabo

The Institute of Technology is a division of the JDP School of Engineering (JDP SOE) and is supervised by the Dean of Engineering with the aid of a program director. In general, graduates from this program will have a theoretical and practical knowledge of the rapidly changing world of technology. The curriculum also provides for developing the student's knowledge and skills in data analysis, problem solving, computer applications and effective communication in English and Spanish. Graduates will also have the necessary educational background to continue studies towards an Associate or Bachelor's degree in a related engineering area.

FACULTY

Nelson Martinez / Instructor
MBA, University of Turabo

Andrés Lorán / Instructor
MS, Universidad Politécnica de Puerto Rico

PROGRAMS OF STUDY

ASSOCIATE DEGREE IN ELECTRONIC ENGINEERING TECHNOLOGY

The program focuses on the major areas of computer, instrumentation and communication systems. Graduates will also have the necessary educational background to continue studies towards a Bachelor's Degree in Electrical Engineering.

Vision of the Electronic Engineering Technology Program

To become the number one choice for all motivated students who wish to pursue an electronic engineering technology education in Puerto Rico.

Mission of the Electronic Engineering Technology Program

To prepare electronic engineering technology graduates professionally, so that they will be capable of fulfilling the technological needs of society and excel in the installation, troubleshooting and maintenance of electronic systems.

Objectives of the Electronic Engineering Technology Program

1. To help fulfill the need for technicians in the field of electronic engineering.
2. To deliver instruction using current technology, the most modern equipment, test instruments and computers.
3. To ensure the intellectual development of students enrolled in the program.
4. To develop technicians capable of undertaking leadership roles in professional, civic and social environments.

ELECTRONIC ENGINEERING TECHNOLOGY CURRICULUM

Total Credits		**58**
General Education Courses		**28**
Core Courses		**10**
Concentration Courses		**16**
Electives Courses		**4**
General Education Courses		**28**
ENGL 152	Fundamentals of Reading and Writing	3
ENGL 153	Advanced Communicative English	3
ENGL 231	Research and Writing	3
SPAN 152	Fundamentals of Reading and Writing	3
SPAN 250	Writing Techniques	3
MATH 121	Intermediate Algebra	3
MATH 151	Algebra and Trigonometry I	4
SOSC 111	Individual, Community, Government and Social Responsibility I	3
HUMA 111	Civilizations and Universal Culture I	3
Core Courses		**10**
FSEN 100	Introduction to Engineering Technology	3
ECTE 122	Introduction to Computer Programming	3
MATH 152	Algebra and Trigonometry II	4
Concentration Courses		**16**
EETE 220	Fundamentals of DC/AC Electronics	3
EETE 220L	Lab. of Fundamentals of DC/AC Electronics	1
EETE 225	Fundamentals of Digital Logic	3
EETE 225L	Lab. of Fundamentals of Digital Logic	1
EETE 230	Principles of Electronic Communications	3
EETE 230L	Lab. of Principles of Electronic Communications	1
EETE 250	Fundamentals of Electronic Instrumentation & Calibration	3
EETE 260	Review for License Examination of Electronic Technology	1
Electives Courses		**4**
MATH 221	Calculus I	4
CTEC 222	Principles of Computers, Peripherals and Operating Systems	4

ASSOCIATE DEGREE IN MECHANICAL ENGINEERING TECHNOLOGY

The program emphasizes the analysis, installation, estimating, troubleshooting, and maintenance of new and existing mechanical systems. Graduates will also have the necessary educational background to continue studies towards a Bachelor's degree in mechanical engineering.

Vision of the Mechanical Engineering Technology Program

To become the first choice for all motivated students who wish to pursue a mechanical engineering technology education in Puerto Rico.

Mission of the Mechanical Engineering Technology Program

To prepare mechanical engineering technology graduates professionally, so that they will be capable of fulfilling the technological needs of society and excel in the installation, troubleshooting and maintenance of mechanical systems.

Objectives of the Mechanical Engineering Technology Program

1. To deliver instruction using current technology, the most modern equipment, test instrument and computers.
2. To help fulfill the need for technicians in the field of mechanical engineering.
3. To ensure the intellectual development of students enrolled in the program.
4. To develop technicians capable of undertaking leadership roles in professional, civic and social environments.

MECHANICAL ENGINEERING TECHNOLOGY CURRICULUM

Total Credits		**58**
General Education Courses		**28**
Core Courses		**10**
Concentration Courses		**16**
Electives Courses		**4**
General Education Courses		**28**
ENGL 152	Fundamentals of Reading and Writing	3
ENGL 153	Advanced Communicative English	3
ENGL 231	Research and Writing	3
SPAN 152	Fundamentals of Reading and Writing	3
SPAN 250	Writing Techniques	3

MATH 121	Intermediate Algebra	3
MATH 151	Algebra and Trigonometry I	4
SOSC 111	Individual, Community, Government and Social Responsibility I	3
HUMA 111	Civilizations and Universal Culture I	3
Core Courses		**10**
FSEN 100	Introduction to Engineering Technology	3
ECTE 122	Introduction to Computer Programming	3
MATH 152	Algebra and Trigonometry II	4
Concentration Courses		**16**
ENGI 161	Engineering Technology Graphics	3
METE 235	Fundamentals of Properties of Materials	3
METE 235L	Lab. of Fundamentals of Properties of Materials	1
METE 233	Fundamentals of Refrigeration and Air Conditioning	3
METE 233L	Lab. of Fundamentals of Refrigeration and Air Conditioning	1
METE 245	Fundamentals of Manufacturing Processes Technology	3
METE 245L	Lab. of Fundamentals of Manufacturing Processes Technology	1
METE 247L	Laboratory of Fundamentals of Welding	1
Electives Courses		**4**

ASSOCIATE DEGREE IN QUALITY CONTROL ENGINEERING TECHNOLOGY

The program focuses on areas of quality assurance for industrial or service environments. Graduates will also have the necessary educational background to continue studies towards a Bachelor's Degree in Industrial and Management Engineering.

Vision of the Quality Control Engineering Technology Program

To become the number one choice for all motivated students who wish to pursue an education in the field of quality control engineering technology in Puerto Rico.

Mission of the Quality Control Engineering Technology Program

To prepare quality control engineering technology graduates professionally, so that they will be capable of fulfilling the technological needs of society and excel in the maintenance and improvement of quality systems.

Objectives of the Quality Control Engineering Technology Program

1. To deliver instruction using current technology, the most modern equipment, test instruments, and computers.
2. To help fulfill the need for technicians in the fields of quality assurance.
3. To ensure the intellectual development of students enrolled in the program.
4. To develop technicians capable of undertaking leadership roles in professional, civic and social environments.

QUALITY CONTROL ENGINEERING TECHNOLOGY CURRICULUM

Total Credits		**55**
General Education Courses		**28**
Core Courses		**10**
Concentration Courses		**13**
Electives Courses		**4**
General Education Courses		**28**
ENGL 152	Fundamentals of Reading and Writing	3
ENGL 153	Advanced Communicative English	3
ENGL 231	Research and Writing	3
SPAN 152	Fundamentals of Reading and Writing	3
SPAN 250	Writing Techniques	3
MATH 121	Intermediate Algebra	3
MATH 151	Algebra and Trigonometry I	4
SOSC 111	Individual, Community, Government and Social Responsibility I	3
HUMA 111	Civilizations and Universal Culture I	3
Core Courses		**10**
FSEN 100	Introduction to Engineering Technology	3
ECTE 122	Introduction to Computer Programming	3
MATH 152	Algebra and Trigonometry II	4
Concentration Courses		**13**
QETE 240	Quality Management Principles and Improvement Tools	3
QETE 245	Fund. of Statistical Process Control/Metrology	3
QETE 245L	Lab. of Fundamentals of Statistical Process Control/Metrology	1
QETE 250	Introduction to Technical Engineering Management	3
QETE 255	Fundamentals of Lean Manufacturing-Six Sigma	3
Electives Courses		**4**
MATH 221	Calculus I	4
QETE 260	Principles of Industrial Regulations and Validations	4

ASSOCIATE DEGREE IN COMPUTER TECHNOLOGY & NETWORKS

The program focuses in areas of installation, estimating and maintenance of new and existing computerized systems and network infrastructure. Graduates will also have the necessary educational background to continue studies toward a Bachelor's Degree in Computer Engineering.

Vision of the Computer Technology and Networks Program

To become the first choice for all motivated students who wish to pursue an education in the field of Computer Technology and Network in Puerto Rico.

Mission of the Computer Technology and Networks Program

To prepare computer technology and networks graduates professionally, so that they will be capable of fulfilling the technological needs of society and excel in the maintenance and improvement of computer systems.

Objectives of the Computer Technology and Networks Program

- To deliver instruction using current technology, the most modern equipment, test instruments and computers.
- To help fulfill the need for technicians in the fields of computer and network installation, maintenance and repair, particularly in the eastern and southeastern region of Puerto Rico.
- To ensure the intellectual development of students enrolled in the program.
- To develop technicians capable of undertaking leadership roles in professional, civic, and social environments.

COMPUTER TECHNOLOGY AND NETWORKS CURRICULUM

Total Credits		**58**
General Education Courses		**25**
Core Courses		**10**
Concentration Courses		**19**
Electives Courses		**4**
General Education Courses		**25**
ENGL 152	Fundamentals of Reading and Writing	3
ENGL 153	Advanced Communicative English	3
ENGL 231	Research and Writing	3
SPAN 152	Fundamentals of Reading and Writing	3
SPAN 250	Writing Techniques	3
MATH 121	Intermediate Algebra	3
MATH 151	Algebra and Trigonometry I	4
HUMA 111	Civilizations and Universal Culture I	3
Core Courses		**10**
FSEN 100	Introduction to Engineering Technology	3
ECTE 122	Introduction to Computer Programming	3
MATH 152	Algebra and Trigonometry II	4
Concentration Courses		**19**
CTEC 220	Fundamentals of Computers, Peripherals and Operating Systems	3
CTEC 220L	Fundamentals of Computers, Peripherals and Operating Systems Lab.	1
EETE 223	Fundamentals of Computer Electronic	3
EETE 223L	Laboratory of Fundamentals of Computer Electronic	1
TCOM 335	Principles of Telecommunications and Networking	3
TCOM 335L	Laboratory of Principles of Telecommunications and Networking	1
TCOM 350	Fundamentals of Networking Infrastructure Management	3
TCOM 350L	Laboratory of Fundamentals of Networking Infrastructure Management	1
CTEC 230	Fundamentals of Intermediate Programming	3
Electives Courses		**4**
MATH 221	Calculus I	4
EETE 255	Fundamentals of Microprocessors	4

ASSOCIATE DEGREE IN ELECTRICAL TECHNOLOGY AND RENEWABLE ENERGY

The program focuses on the major areas of Electrical Technology and Renewable Energy. Graduates will also have the necessary educational background to continue studies towards an Associate Degree in Electrical Technology and Renewable Energy.

Vision of the Electrical Technology and Renewable Energy Program

To become the number one choice for all motivated students who wish to pursue technology electrical and renewable energy education in Puerto Rico.

Mission of the Electrical Technology and Renewable Energy Program

To prepare electrical technology and renewable energy graduates professionally, so that they will be capable of fulfilling the technological needs of society and excel in the installation, troubleshooting and maintenance of electrical systems.

Objectives of the Certificate in Electrical Technology and Renewable Energy Program

- Help fulfill the need for technicians in the fields of Electrical Technology and Renewable Energy.
- Provide the knowledge and necessary skills required of the most recent electrical technology and renewable energy.
- Ensure the intellectual development of students enrolled in the program.
- Develop technicians capable of undertaking leadership roles in professional, civic, and social environments.

ASSOCIATE DEGREE IN ELECTRICAL TECHNOLOGY AND RENEWABLE ENERGY CURRICULUM

Total Credits		**57**
General Education Courses		**24**
Core Courses		**3**
Concentration Courses		**30**
General Education Courses		**24**
ENGL 152	Fundamentals of Reading and Writing	3
ENGL 153	Advanced Communicative English	3
SPAN 152	Fundamentals of Reading and Writing	3
SPAN 250	Writing Techniques	3
MATH 121	Intermediate Algebra	3
SOSC 111	Individual, Community, Government and Social Responsibility I	3
HUMA 111	Civilizations and Universal Culture I	3
Core Courses		**3**
FSEN 100	Introduction to Engineering Technology	3
Concentration Courses		**30**
ETRE 160	Principles of Electrical Circuits and Power	3
ETRE 160L	Lab. of Principles of Electrical Circuits and Power	1
ETRE 165	Fundamentals of Renewable energy	3
ETRE 170	Introduction to Electrical Installations and NEC	3
ETRE 170L	Lab. of Introduction to Electrical Installations and NEC	1
ETRE 175	Electrical machinery	3
ETRE 175L	Lab. of Electrical Machinery	1
ETRE 180	Fundamentals of Photovoltaic and Wind Power System	3
ETRE 180L	Fundamentals of Photovoltaic and Wind Power Systems Lab.	1
ETRE 181L	Lab. of Photovoltaic and Wind Power Systems Installation	1
ETRE 260	Electrical Installations	3
ETRE 265	Principles of Electrical Controls and PLC	3
ETRE 265L	Lab. of Principles of Electrical Controls and PLC	1
ETRE 280	Review for License Examination of Electrician	3

COURSE DESCRIPTIONS

CTEC 200
Computers & Peripherals Installation, Maintenance, and Support
Four Credits

Three lecture hours and one three-hour lab per week. This course covers all components and ancillary systems comprising a PC. It provides an introduction to every component and analyzes its functionalities and weaknesses. It analyzes the role of each component in supporting an application and the user functional goal. It presents the PC as a package of matched components and dissects all of its internals individually and integrally. Some of the components covered are the CPU, RAM, display apparatus, ROM, fixed disk, USB, network adapter, CD-ROM, CDRs, DVDs, floppy disk, serial and parallel ports, mouse, keyboard and others. The course also covers the most critical peripherals such as printers, scanners, digital imagery equipment, modems, and others.

CTEC 205
Computers, Peripherals and Operating Systems
Three Credits

Two lecture hours and one three –hours lab per week. This course covers all components and ancillary systems comprising a personal computer. It provides an introduction to every component and analyses its functionalities and weaknesses. It presents the PC as a package of matched components and dissects all of its internals individually and integrally. Also this course covers all software components comprising a PC. It analyses the role of each components in supporting an application and the user functional goal. Some of the software components are the operating system and its subcomponents. It covers in detail software problems.

CTEC 210
Operating Systems, Installation & Configuration
Four Credits

Three hours of lecture and one three-hour lab per week. This course covers all software components comprising a PC. It provides an introduction to every component and analyzes its functionalities and weaknesses. It analyzes the role of each component in supporting an application and the user functional goal. It presents the PC as a package of matched components and dissects all of its internals individually and

integrally. Some of the software components are the operating system and its sub-components, data communications software components, DOS components, peripheral administration components, Windows Systems architecture, disk operating software, essential user applications, memory management software, software upgrades management. It covers in detail the diagnosis, procedures and resolution of software problems. It also deals with virus problems and the most effective software solutions. Finally, it covers networking from a software perspective.

CTEC 220
Fundamentals of Computers, Peripherals and Operating Systems
Three Credits
This course covers all components and ancillary systems comprising a personal computer. It provides an introduction to every component and analyses its functionalities and weaknesses. It presents the PC as a package of matched components and dissects all of its internals individually and integrally. Also this course covers all software components comprising a PC. It analyses the role of each components in supporting an application and the user functional goal. Some of the software components are the operating system and its subcomponents. It covers in detail software problems.

CTEC 220L
Laboratory of Fundamentals of Computers, Peripherals and Operating Systems
This laboratory course provides students with theoretical concepts and practical skills in using personal computers and peripherals. It discusses the concepts of "motherboard", input and output ports, power supplier, update, preventive maintenance, among others. The issues are addressed to the operating principles, selection and specifications for personal computers. Also this course prepares students to take the certification exam for personal computers "A +".

CTEC 222
Principles of Computers, Peripherals and Operating Systems
Three Credits
This course covers all components and ancillary systems comprising a personal computer. It provides an introduction to every component and analyses its functionalities and weaknesses. It presents the PC as a package of matched components and dissects all of its internals individually and integrally. Also this course covers all software components comprising a PC. It analyses the role of each components in supporting an application and the user functional goal. Some of the software components are the operating system and its subcomponents. It covers in detail software problems.

CTEC 310
Data Communications and Networks
Four Credits
Three hours of lecture and one 3-hour lab per week. Basic principles involved in the design and implementation of data networks. The course covers the historical evolution of distributed computing, which has taken place as a result of advancing technologies. It identifies the types of communications networks that have evolved, based on the various technological configurations. The different electrical characteristics of data transmission are also covered, along with the basic laws and theories that determine their use. The various techniques that enable the receiving of data and bit error protocols are discussed in detail, along with the techniques to control transmission errors and flow. Standard data links and encryption protocols are also covered as well as the concepts of “computer communities”. Finally, the protocols for the implementation of Data Communications are presented.

CTEC 320
Introduction to Programming with C++
Four Credits
Five hours lecture and laboratory per week. This course will develop in the student of the program of the Associated Degree in Technology of Computers and Networks the theoretical knowledge and the necessary technical skills in the use and handling of the programming in C ++ language. It analyzes the basic elements of the programming such as; resolve problems, algorithms and development of flowchart. Also there will be discussed variables, structures, functions, arrangements and sequences.

EETE 210
DC/AC Electronics
Four Credits
Three hours of lecture and one three-hour lab per week. Basic concepts in the theory of electronic circuit analysis; semiconductor theory; the diode; bipolar junction transistors and BJT amplifiers, and field-effect transistors. Also covers frequency response, multistage and operational amplifiers.

EETE 212
Digital Electronics
Four Credits
Three hours of lecture and one three-hour lab per week. The course covers number systems and codes, digital electronics, signals and switches, logic gates and Boolean algebra, combinational logic circuits, flip-flops and related devices. Digital Arithmetic: operations and circuits. Code converters, multiplexers and demultiplexers.

EETE 214
Microprocessors
Four Credits
Three hours of lecture and one three-hour lab per week. Covers an introduction to microprocessor-based systems. Includes the 80X86 microprocessor family, software architecture, programming, and hardware architecture. Advanced topics.

EETE 216
Industrial Electronics
Four Credits
Three hours of lecture and one three-hour lab per week. Covers the theory and practice of modern electronic devices that are used in industrial applications. Includes the use of the transistor switch as a decision circuit maker; programmable logic controllers; triacs and thyristors.

EETE 218
Communications
Four Credits
Three hours of lecture and one three-hour lab per week. Introductory topics of; amplitude modulation (AM): transmission and reception; single-sideband communications; frequency modulation (FM): transmission and reception; television and communications techniques.

EETE 220
Fundamentals of DC/AC Electronics
Three Credits
In this course the student will learn the basic concepts of the theory of analysis of electronic circuits; theory of semiconductors; the diode; Bipolar Junction Transistor; amplifiers BJT and field effect transistors. In addition, it covers response of frequencies and operational amplifiers and multistage. There will be analyzed circuits that are used in communication equipment, systems of sound and instrumentation.

EETE 223
Fundamentals of Computers Electronic
Three Credits
The course covers the theoretical concepts of number systems and codes, digital electronics, signals and switches, logic modules and Boolean algebra, combinational logic circuits and related devices. Digital Arithmetic: operations and circuits. Code converters, multiplexers and demultiplexers. Furthermore, analyze digital circuits that are used in computers, communications systems and medical equipment.

EETE 240
Review for License Examination of Electronic Technician
One Credit
Two hours lecture per week. This course takes as an intention to revise all the concepts that are necessary to take the final examination for electronics technician. It will cover the concepts of dc/ac, semiconductors, digital electronics, microprocessors, industrial electronics, communications, and instrumentation. At the end of the course a test will be offered, simulating the final examination for electronics technicians.

ENGI 101
Introduction to Engineering Technology
Three Credits
Three hours of lecture/workshop per week. Introductory required course for all first year associate degree students in computer technology or engineering technology program. Introduction to the various specialties within the engineering and technical profession. Basic concepts of engineering design and technical communication. Laws and ethics of the engineering and technical profession.

ENGI 121
Introduction to Computers
Three Credits
Three hours of lecture-lab discussion per week. Introductory required course for all first year associate degree students in computer technology or engineering technology program. Introduction to the history of computers. Familiarization with basic computer software and hardware. Use of software packages such as Word, Excel, Power Point. Design of Internet Web pages.

ENGI 161
Engineering Technology Graphics
Three Credits
Includes principles of engineering drawing with sketching and computer graphics (Solid Work) with an introduction to descriptive geometry. The fundamentals of orthographic projections, pictorials, auxiliary views, sectioning, dimensioning, tolerance, working drawings are presented. Also the student applies freehand techniques to sketch oblique and isometric 3D projections.

ENGI 223L
Intermediate Programming Laboratory
One Credit
This is an intermediate-level course Lab in computer programming. Hands on workshops and experimental practice on two or three project. Development, analysis, simulation, and implementation of a major design project to solve a specific problem in real world.

ETRE 110
Fundamentals of Electrical Circuits and Power
Five Credits
Seven Lecture -Lab. hours per week. This course introduces the basic concepts of electrical circuits and electric power. The student will have the opportunity to learn and to apply the knowledge of electrical safety, Ohm's Law, Kirchhoff`s

Law, resistive, capacitive and inductive circuits, magnetism and electromagnetism. In addition, the three-phase system, transformers and power factor will be studied. The course will be complemented by a section of laboratory for the application of its theoretical concepts.

ETRE 115
Introduction to Renewable Energy
Two Credits
Four hours lecture. In this course the student will acquire the basics concepts of renewable energy systems. It will examine global climate change, energy use and dependence on fossil fuels, sustainable energy and vision of current energy demand and patterns supplied. In addition, the student will know the rules and regulations that govern this technology.

ETRE 120
Electrical Installations and NEC
Four Credits
Seven hours lecture-lab per week. This course uses the National Electrical Code (NEC) and other regulations for development of electrical installations on houses and buildings. The student will discuss the following topics; interior and exterior wiring, electrical panels' installation, and lighting fixtures. Use of electrical plans. The course will be supplemented by a laboratory section for the application of theoretical concepts.

ETRE 125
Fundamentals of Electrical Machinery
Four Credits
Seven hours lecture-lab per week. In this course the student will acquire and apply the theoretical knowledge and the necessary skills in the use and handling of electrical machines. They will study functioning, installation, maintenance and troubleshooting of these equipment. Motors, generators and electrical machines will be used in the laboratory practices.

ETRE 130
Photovoltaic System and Installation
Three Credits
Four hours lecture-lab per week. In this course the student will acquire the knowledge's on photovoltaic systems. Will be studied their parts, operation, installation, and maintenance. PV cells, batteries, charge controllers, inverters and other equipment will be used in the laboratory. The rules and regulations governing this technology will be discussed and applied.

ETRE 140
Supervised Project
Three Credits
Seven hours lecture-lab per week. In this course the student will apply knowledge gained in previous courses. Through this project they will develop skills that are needed to work in the field of electrical industry. The student will be assessed by their instructor/mentor in the workshop of the project and their class.

ETRE 240
Electronic for Electricians
Two Credits
Four hours lecture-lab per week. This course will acquire the basics of electronic circuits. The student will have the opportunity to learn and apply knowledge of diodes, transistors, amplifiers, power supplier, transducers, and integrated circuits. The course will be supplemented by a laboratory section for the application of the theoretical concepts.

ETRE 245
Wind Power System and Installation
Three Credits
Three hours lecture- lab per week. In this course the student will acquire knowledge and skills to work with Wind Power Systems. Their parts, operation, installation, and maintenance will be discussed. Wind turbines, anemometer, inverters and other equipment will be used in the laboratory. The rules and regulations governing this technology will be included and applied.

ETRE 250
Electrical Controls and PLC
Four Credits
Four hours lecture practice per week. This course is designed for the student to acquire knowledge and skills in the use, installation, operation and maintenance of motor controls, electric generators, and other machines. It will study the characteristics of relays, magnetic contactors, solenoids and others electrical controls devise. Also they apply the concepts of Programmable Logic Controllers (PLC). The course will be supplemented by a laboratory section.

ETRE 255
Review for License Examination of Electrician
Three Credits
Three hours lecture/lab per week. The basic knowledge and skills of previous courses will be reviewed. The concepts of analysis, application, operation, and maintenance of electrical systems will be discussed again. Problems in electrical installations, machinery, three phase systems and controls are included to provide the student with the knowledge and skills necessary to take the electrician's licensing exam offered by the government of Puerto Rico.

ETRE 260
Electrical Installations
Three Credits
This theoretical and practical course contains the installation techniques used in industrial sectors and planning and

installation of the low and high voltage distribution panels. It also, contains the methods of testing and maintenance of the low and high voltage distribution panels. The application of safety rules and procedure in this course.

ETRE 265
Principles of Electrical Controls and PLC
Three Credits
This course is designed for the student to acquire knowledge and skills in the use, installation, operation and maintenance of motor controls, electric generators, and other machines. It will study the characteristics of relays, magnetic contactors, solenoids and others electrical controls devise. Also they apply the concepts of Programmable Logic Controllers (PLC).

ETRE 265L
Laboratory of Principles of Electrical Control and PLC
One Credit
This laboratory course provides students with theoretical concepts and practical skills of different types of existing electric control systems. It discusses the concepts of magnetic systems and automatic controls. The issues are addressed to the operating principles, selection and specifications of the various electrical controls. Using different control components such as: magnetic contactors, timers and counters, programmable logic controllers and others. Apply safety rules and codes.

ICET 210
Fundamentals of Instrumentation and Calibration
Three Credits
Five hours of lecture-lab discussion per week. This course provides the student the basic elements of the instrumentation and the calibration. It discusses the concepts of pressure, temperature, level and flow. The topics are directed to the principles of operation, selection and specifications of different instruments. Also, this course applies the principles of industrials instruments calibration such as: valves, sensors and other components.

MAET 201
Fundamentals of Manufacturing
Three Credits
Three hours of lecture per week. This course covers the basic concepts of the manufacture, its areas, processes and applied technologies. Different manufacturing industries will be discussed and different materials and equipment used for development products will be identified.

METE 220
CAD/CAM Technology
Four Credits
Three hours of lecture and one three-hour laboratory per week. Introduction to CAD/CAM. Students generate working drawings of machine parts and/or products. They learn to create 3-D models of mechanical parts using Solid Works surfacing and solid modeling commands.

METE 222
Properties of Materials
Four Credits
Three hours of lecture and one three-hour laboratory per week. Covers the basics required for successful design of machine members, parts and connections. Selection of materials according to their strength and function based on testing and design.

METE 224
Manufacturing Process Technology
Four Credits
Three hours of lecture and one three-hour laboratory per week. An introduction to manufacturing processes and overview of casting, forming, and metal removal processes. Manufacturing processes of plastics.

METE 226
Air Conditioning & Refrigeration Technology
Four Credits
Three hours of lecture and one three-hour laboratory per week. Refrigeration and air conditioning systems are covered in detail, along with the safe handling of refrigerants. Study of fans, fan laws, duct layout and sizing as they pertain to air conditioning systems. Techniques for designing air conditioning and refrigeration systems for buildings.

METE 228
Mechanical Measurements Technology
Four Credits
Three hours of lecture and one three-hour of laboratory per week. The study of measurement technology, coordinate measuring machines, surface finish measurements, machine vision, and particle measurement in a clean environment. The monitoring of processes and operations, automatic control and data analysis.

METE 230
Principles of Pneumatic and Hydraulic Systems
Four Credits
Two hours of lecture and one three-hour of laboratory per week. This course covers the theoretical and practical principles of hydraulics and pneumatics systems. The student acquires the knowledge in the design, installation and repair components such as valves, compressors, actuators regulators and other associates components. Skills in blueprint reading and schematics related with industrial hydraulics and pneumatics field are developed.

METE 233
Fundamentals of Refrigeration and Air Conditioning
Three Credits
In this course refrigeration and air conditioning the student will develop the knowledge on the following topics: characteristics of refrigerants, temperature, pressure, tools and equipment, welding, system components, compressors, evaporators, and metering devices. It also studied the burden and evaluation of systems and leak detection. Explore the basic system maintenance. Explains the use and care of oils and additives and troubleshooting of small commercial systems.

METE 233L
Laboratory of Fundamentals of Refrigeration and Air Conditioning
One Credit
In this laboratory course will apply the theoretical knowledge acquired in the course METE 240, Fundamentals of Refrigeration and Air conditioning. The student will learn techniques for leak detection, evacuation, refrigerant charge and the recovery of refrigeration and air conditioning. The course also includes flowcharts, various thermodynamics appendices, conversion factors, coolant pressure and analysis of heating by pressure. Also the student applies the Thermodynamics Laws in this course.

METE 235
Fundamentals of Properties of Materials
Three Credits
Fundamental principles of structure and properties of materials utilized in practice of technology engineering. Properties of materials are related to atomic, molecular, crystalline structures. Metals, ceramics, multiphase systems, and polymeric materials. Relationships between structure and electrical, mechanical, thermal, chemical properties.

METE 235L
Laboratory of Fundamentals of Properties of Materials
One Credit
In this laboratory course will apply the theoretical knowledge acquired in the course METE 235 Fundamentals of Properties of Materials. The student will have the opportunity to develop different types of tests to metals, plastics and wood. Be used: microscopes and hardness equipment among others. Also in this course, students apply all safety rules established for Mechanical Engineering Laboratory.

METE 245
Fundamentals of Manufacturing Processes Technology
Three Credits
In this course the students learn the fundamentals to manufacturing processes, including interrelationships between the properties of the material, the manufacturing process and the design of components. Overview of casting, forming, and metal removal processes. Also will be used manufacturing processes of plastics and wood. Emphasis on process selection for optimum design.

METE 245L
Laboratory of Fundamentals of Manufacturing Processes Technology
One Credit
In this laboratory course will apply the theoretical knowledge acquired in the course METE-245 Principles of Manufacturing Processes Technology. The student will have the opportunity to acquire technical skills in the development of mechanical components. Be used: lathes, milling machines, drills and other specialized equipment to design industrial parts. The student applies the safety rules and procedures in the laboratory.

METE 247L
Laboratory of Fundamentals of Welding
One Credit
In this course the student will acquire knowledge and skills related to the field of welding. We will study the materials, techniques and procedures relating to this matter. The student will have the opportunity to work: oxy-acetylene soldering, shielded metal arc, gas metal and plasma cutting and more. Using all the safety rules that govern this field as well as the procedure used for the management and use of gas.

METE 250
Principles of Pneumatic and Hydraulic
Four Credits
This course covers the theoretical and practical principles of hydraulics and pneumatics systems. The student acquires the knowledge in the design, installation and repair components such as valves, compressors, actuators regulators and other associates components. Skills in blueprint reading and schematics related with industrial hydraulics and pneumatics field are developed. The student applies the safety rules and procedures in the laboratory.

METE 251
Introduction to Industrial Mechanics
Three Credits
Provide basic mechanical skills and repair techniques common to most fields of industrial maintenance. Includes topics on precision measuring instruments and general safety rules common in industry, including lock-out/tag-out. Hands on course include troubleshooting and overhaul of mechanical systems such as pumps, assembly lines, conveyors, and associated industrial machinery.

PHSC 120
Technical Science
Three Credits
Three hours of lecture and one three-hour lab per week. This is a course designed for technicians who require a working

knowledge of the basic principles of physics. The course provides students with an introduction to the basic principles and applications of mechanics, the concepts of rotation, simple harmonic motion, properties of materials, fluids, heat and temperature, and electricity.

QETE 230
Quality Management Principles
Three Credits
Three hours of lecture per week. Focuses on the organizational goal of producing a quality product or service. The meaning and benefits of quality, the cost of quality and problem solving tools for continuous improvement. Topics include overview of quality philosophy; principles of quality, commitment to continuous improvement, customer focus and paradigm shift, understanding process variation and employee involvement.

QETE 232
Quality Improvement Tools
Three Credits
Three hours of lecture per week. These tools provide the basics for examining processes and systems and making data-based decisions to improve work processes and systems. Covers the 7-step improvement process, includes flow-charting, Pareto charts and cause-effect diagrams.

QETE 234
Statistical Process Control and Metrology
Four Credits
Three hours of lecture and one three-hour lab per week. Provides the basic concepts and applications of Statistical Process Control (SPC). The course covers control charts; including setting scales, charting, interpreting, and analyzing process capability. Problem-solving techniques are emphasized and laboratory exercises are linked to the implementation of SPC in the workplace.

QETE 236
Process Validation
Three Credits
Three hours of lecture per week. The course covers validation approaches for characterizing processes, process intermediates and final products emphasizing cost effectiveness while determining what levels of validation are required for different phases of development and process improvement. Includes topics such as validation of water systems, cleaning validation, computer systems validation, equipment validation and recent trends in process validation.

QETE 237
Industrial Regulations and Validations
Four Credits
Five hours lecture per week. This course cover the study of current Good Manufacturing Practices (CGMP's) and the series of international quality standards known as ISO 9000 through 9004, ISO 10011, 10012, and ISO 14000.The validation for characterizing processes, intermediates process and final products emphasizing effectiveness cost while determining what levels of validation are required for different phases of development and process improvement also are included. Are discussed topics such as validation of water systems, cleaning validation, computer systems validation, equipment validation and recent trends in process validation.

QETE 238
GMP and ISO Standards
Three Credits
Three hours of lecture per week. The study of Good Manufacturing Practices (GMPs) and the series of international quality standards known as ISO 9000 through 9004, ISO 10011, 10012, and ISO 14000. Provides an understanding of documentation system for validation of equipment, utilities, analytical methods and processes in a medical manufacturing environment.

QETE 240
Quality Management Principles and Improvement Tools
Three Credits
This course focuses on the organizational goal of producing a quality product or service. The meaning and benefits of quality, the cost of quality and problem solving tools for continuous improvement. Topics include overview of quality philosophies; principles of quality, commitment to continuous improvement, customer focus and paradigm shift, understanding process variation and employee involvement .Also, describes the quality tools that provide the basics for examining processes and systems and making data based decisions to improve work processes and systems. Covers the 7-step improvement process, includes flow-charting, Pareto charts and cause and effect diagrams.

TCOM 300
Introduction to Telecommunications
Four Credits
Three hours of lecture and one three-hour lab per week. Key concepts of telecommunications and networking. The course provides a solid introduction to networking fundamentals including key acronyms, protocols, and components that are essential to understanding how networks operate today. It covers the basic concepts of telecommunications such as analog/digital communications, basic encoding, bandwidth and capacity and serves as a foundation for in-depth study of networking. Upon completion, the participant will have a solid understanding of how information travels from a source computer to a destination computer across a complex network.

TCOM 320
Telecommunication and Data Networks
Four Credits
Three hours of lecture and one three-hour lab per week. This course covers the key concepts of telecommunications and networking. It provides a solid introduction to networking fundamentals including key acronyms, protocols, and components that are essential to understanding how networks operate today. It covers the basic concepts of telecommunications such as analog/digital communications, basic encoding, bandwidth and capacity and serves as a solid foundation for in-depth study of networking. It identifies the types of communications networks that have evolved based on the various technological configurations and the internetworking process behind data communications. Upon completion, the participant will have a solid understanding of how information travels from a computer to another computer across a network.

TCOM 330
Network Infrastructure Management
Four Credits
Three hours of lecture and one 3- hour lab per week. This course concentrates on the Windows/2000 infrastructure management protocol, which is the largest in use on a global scale. Procedures for planning and servicing network infrastructure. The course covers areas such as protocols, services requiring calculation in the light of the organization needs, packet exchange and sequential packet exchange IPX/SPX, integration with Novell NetWare, TCP/IP. NetBIOS, WINS, DHCP and DNS maintenance and configuration issues are covered. Routing, remote access and VPNs are also covered from an infrastructure and management perspective.

TDBE 110
Technical Drawing and Blue Print Reading for Electricians
Two Credits
Four hours lecture - lab per week. This course introduces the student to terminology and applications unique levels of the electricity industry. Covered in the basic drawing tools and then acquire skills in the development of views, plans and specifications. In addition they will cover the types of views on a set of construction drawings and clear explanations of their relationships with various electrical installations. It offers a comprehensive and applicable content in the electrical drawing.

INTERNATIONAL SCHOOL OF DESIGN AND ARCHITECTURE

The International School of Design (ISD) at UT initiated its operation as an administrative unit in 2006. Its first two degrees were a Bachelor's Degree in Design with a concentration in Industrial Design (BDes) and an Associate Degree in Fashion Design (AFD). The Dean is the Chief Officer of the School, which became the seventh academic unit of the institution.

MISSION

To prepare leaders and professionals in the design field who are competitive, and are focused toward an international academic perception. In addition, they are critical, and multidisciplinary; they are committed to debate, investigation, the cultural content and the technological merits of the designed object and their production technology.

VISION

The school will be known in Puerto Rico and internationally as a leader in the development of professionals in design with international and multidisciplinary perspectives, and as school which is oriented toward the needs of the contemporary human being.

GOALS

The proposed program relates to the institutional mission. The Programs goals are:
Promote ethical and cultural values to enable students to make better use of their judgment, rights, and obligations.
Establish international collaborations.
Graduate students who are well prepared in the area of design
Promote the uses of technology for design and production
Establish collaborative relationships between the University and the external community by promoting research and industrial relationships

These goals fulfill the institutional mission.

SPECIALIZED ACCREDITATION

Candidate status was granted in January 2016 for the Master Degree in Architecture by the National Architectural Accrediting Board (NAAB).

FACULTY

Members of the faculty will be carefully chosen educators and practitioners with academic preparation and practical experience in the discipline. These faculty members will be chosen from design professionals with preparation and practice in the area.

Ana Rebecca Campos / Instructor
MA Domus Academy, Italy

Cristiano Carciani / Instructor
MPA, Universidad del Turabo

Elizabeth Castrodad / Instructor
M Arq, Universidad de Puerto Rico

Lucero Cintrón / Instructor
AD, Escuela de Diseño Altos De Chavón

Mauricio Conejo / Instructor
MA, Northumbria University

Yazmín Crespo / Instructor
MArch, Harvard University

Eddie Figueroa / Instructor
MID, Scuola Politecnica Di Design

Ramdwin González / Instructor
BA, Universidad del Turabo

Aurorisa Mateo / Associate Professor
MArch, Architectural Association, London, UK

José Ramírez Rivera / Instructor
MArch, Universidad de Puerto Rico

Andrea Robledo / Instructor
MA, Rochester Institute

Kalia Toro / Assistant Professor
PhD, Centro de Estudios Avanzados de Puerto Rico y el Caribe

ASSOCIATE DEGREE IN FASHION DESIGN (AFD)

The Associate degree in Fashion Design will train students to take part as professionals in all aspects of the garment industry, ranging from children's apparel to men's ready-to-wear and including couture. Particular attention will be placed on the history of fashion and its recurring interpretations. Students will be asked to see fashion and its recurring interpretations as a reflection and as a component in a continuum that includes ethical practice, manufacturing, marketing, promotion, accessorizing, and disposal. Students will not only be instructed in the areas of fashion concept development, but in the business aspects of the rapidly growing clothing industry. Students may also focus on make-up and costume design for theater, television and film.

The program has several distinct areas of focus:

- General education component
- Core curriculum in design
- Business courses
- Practical experiences in different settings
- Concentration courses
- Close student-faculty interaction, and academic counseling
- Distinguished faculty which has experience as practitioners in the field

GENERAL OBJECTIVES OF ASSOCIATE DEGREE IN FASHION DESIGN PROGRAM

The goals of the Associate Degree in Fashion Design are:

- To provide students with the knowledge to develop their skills and contribute to our society.
- To capacitate designers for a variety of settings.

SPECIFIC OBJECTIVES OF ASSOCIATE DEGREE IN FASHION DESIGN PROGRAM

To develop designers capable of designing innovative garments.
To fulfill the needs of local industry.
To provide designers capable of developing their own businesses and are sensitive to ethical and integrity issues.

Graduation Requirements

Undergraduate students of Universidad del Turabo will be eligible to receive academic degree after meeting the requirements and procedures stablished by the institution and the following

- Completion and approval of a Portfolio.

ASSOCIATE DEGREE IN FASHION DESIGN ALUMNI PROFILE

Graduates from the Associate Degree in Fashion Design will:

- Apply the ethical principles that rule the profession.
- Have the competence to select and create the appropriate design for the clients' needs.
- Have the knowledge to develop their own business.
- Have sensibility for ethnological diversities and needs.

ASSOCIATE DEGREE IN FASHION DESIGN CURRICULUM

Total Credits	**60**
General Education Courses	**9**
Core Courses	**6**
Major Courses	**45**

General Education Courses		**(9 credits)**
SPAN 152	Fundamentals of Reading and Writing	3
ENGL 152	Fundamentals of Reading and Writing	3
MATH 120	Introductory Algebra	3

Core Courses		**(6 credits)**
DESI 121	Drawing I	3
FSDE 100	Freshman Seminar	3

Major Courses		**(45 credits)**
HIDE 105	Fashion History	3
FADE 100	Basic Sewing	3
FADE 125	Representing the Body	3
FADE 131	Fashion Concept Development I	3
FADE 132	Fashion Concept Development II	3
FADE 140	Fashion Drawing	3
FADE 150	Studio Methods and Structures	3
FADE 200	Patternmaking	3
FADE 210	Construction Techniques I	3
FADE 215	Digital Fashion Design	3
FADE 240	Portfolio Studio	3
FADE 255	Core Studio: Concepts and Realization I	3
FADE 256	Core Studio: Concepts and Realization II	6
FADE 270	Internship	3

ASSOCIATE DEGREE IN WEB DESIGN

The goal is to become a Web Designer, an expert qualified to deal with the Internet's continuous string of advances, who has the training and skills to define, create, and design them. A web designer configures telecommunications systems to ease people's access to content and audiovisual information.

ISD Web Design program graduates are qualified to work as:

- Web Designer
- Web Art Director
- Web Creative Director
- Multimedia Designer
- Web Specialist
- Web Information Architect

ASSOCIATE DEGREE IN WEB DESIGN CURRICULUM

Total Credits	**60**
General Education Courses	**15**
Core Courses	**12**
Major Courses	**33**

General Education Courses		**(15 credits)**
SPAN 152	Fundamentals of Reading and Writing	3
ENGL 152	Fundamentals of Reading and Writing	3
MATH 120	Introductory Algebra	3
INSC 101	Integrated Sciences I	3
HUMA 111	Civilization and Universal Culture I	3

Core Courses		**(12 credits)**
DESI 121	Drawing I	3
FSDE 100	Freshmen Seminar	3
ENTR 360	Entrepreneurship	3
HIDE 100	History of Art	3

Concentration Courses		**(33 credits)**
WEDE 100	Web Design and Graphics Studio 1	3
WEDE 200	Web Design and Graphics Studio 2	3
WEDE 250	Web Design and Graphics Studio 3	3
WEDE 260	Web Design and Graphics Studio 4	3
WEDE 270	Internship	3
WEDE 280	Portfolio Studio	3
GRAD 130	Image Studio: Black and White	3
GRAD 310	Graphic Design Studio III	6
CTEC 210	Operating Systems, Installation and Configuration	3
CTEC 340	Programming for the Web	3

ASSOCIATE DEGREE IN ARCHITECTURAL DRAFTING

With the Architectural Drafting degree, the student will be trained to manage architectural, mechanical, electrical, civil, structural and products technical drawings. In addition, the student will be prepared to be tested by the Puerto Rico Drafting Accreditation Board. Graduates of our program in Architectural Drafting will be qualified to prepare paper and digital drawings, as well as plans, in 2D and 3D, using CAD software from a sketch.

Graduates will be qualified to work as:

- Architectural Drafter
- Surveyor Drafter
- Engineer Drafter
- Industrial Design Drafter
- 3D Modeler
- 2D and 3D Render

ASSOCIATE DEGREE IN ARCHITECTURAL DRAFTING CURRICULUM

Total Credits	**60**
General Education Courses	**12**
Core Courses	**6**
Major Courses	**42**

General Education Courses		**(12 credits)**
SPAN 152	Fundamentals of Reading and Writing	3
ENGL 152	Fundamentals of Reading and Writing	3
MATH 120	Introductory Algebra	3
HUMA 111	Civilization and Universal Culture I	3

Core Courses		**(6 credits)**
DESI 121	Drawing I	3
FSDE 100	Freshmen Seminar	3

Concentration Courses		**(42 credits)**
ADID 111	Technical Drawing I	6
ADID 121	Computer Aided Drawing I	3
ADID 122	Technical Drawing II	6
ADID 231	Computer Aided Drawing II	3
ADID 232	Technical Drawing III	6
ADID 223	Methods and Construction Materials	3
ADID 240	Mechanical Drawing	3
ADID 241	Computer Aided Drawing III	3
ADID 242	Technical Drawing IV	3
ADID 250	Portfolio Studio	3
ADID 270	Internship	3

COURSE DESCRIPTIONS

(Courses marked with @ could be offered in both modalities, traditional or on-line.)

ADID 111
Technical Drawing I
Six Credits
This course introduces to the student to the profession of architectonic drafting, the basic principles of drawings, laws and regulations. It includes the identification and use of the drawing instruments, alphabet of letters, lines, measurement and scales, applied geometry, orthographic projections, sectionals, isometric views oblique, perspective, auxiliary views, sketch by hand raised and sizing. The works will be carried out on drawing table.

ADID 121
Computer Aided Drawing I
Three Credits
This is an introductory course in the use of AutoCAD computer-aided-drafting software. Students will learn the advantages and disadvantages of using computer graphics, as well as fundamental capabilities of AutoCAD such as how to draw and edit entities (lines, circles, arcs, etc.). In addition the students will learn more advanced concepts such as how to work with layers and how to write text and dimension drawings. The course concludes with a final project that consists of drawing the floor plan, sections, and elevations of a two-bedroom residence.

ADID 122
Technical Drawing II
Six Credits
This course is a continuation of ADID 111 and emphasizes the elements of architectural sketch such as learning how to draw floor plans, dimensions, elevations (facades) and architectural sections. The symbols and nomenclature used in detail. The details in the kitchens drawings, bathrooms, bedrooms and dining room will also be discussed. Includes a site and location, plans and other field elements will be examine.

ADID 223
Methods and Construction Materials
Three Credits
This course introduces students to the basic principles of the methods and materials used in construction, including the final estimated cost of work. Learn about the different government agencies and private associations which governed the construction. Learn about the different types of materials used to produce the various works, emphasizing the concrete and steel which are very common. This range of information provided will give the student the opportunity to be a versatile draftsman and used in its plane the different ideas of professionals with whom he interacts.

ADID 231
Computer Aided Drawing II
Three Credits
This course addresses the advanced AutoCAD technique of creating symbol libraries and working with isometric drawings. The emphasis of the course is in preparing civil (structural), mechanical (plumbing) and electrical drawings. Students will prepare their own symbol libraries to represent values, pump, electrical outlets, etc. In addition, students will learn how to use the symbol libraries already created for AutoCAD. The course concludes with a final project which consists of drawing the structural, plumbing, and electrical drawings of two bedroom residence. The residence is the same for which the architectural drawings were prepared in course DRAF121 AutoCAD I.

ADID 232
Technical Drawing III
Six Credits
This course examines the particular requirements to create civil (structural), mechanical (plumbing and HVAC), and electrical drawings. The emphasis is on familiarizing the students with the nomenclature and organization of the drawings. Fundamental principles for each of the subjects will be briefly presented as background. The course concentrates on examining and analyzing several construction drawings donated to engineering professor Juan C. Morales for educational purposes. The students will practice the concepts learned in class during the laboratory session. The laboratory session will include both drafting with instruments and drafting with the computer using AutoCAD.

ADID 240
Mechanical Drawing
Three Credits
Introduces students to the fundamentals of mechanical and industrial design through study and analysis of the physical description of the objects. This course includes topics such as: assembly drawing, welding drawing, structural delineation, industrial pipe drawing, flat air conditioning ducts and introduction to the civil drawing (typography). Using the table and drawing instruments the student develops manipulative skills required in the plans.

ADID 241
Computer Aided Drawing III
Three Credits
This course addresses the advanced AutoCAD technique of creating symbol libraries and working with isometric drawings. The emphasis of the course is in preparing civil (structural), mechanical (plumbing) and electrical outlets, etc. In addition, students will learn how to use the symbol libraries already created for AutoCAD. The course concludes with a final project which consists of drawing the structural, plumbing, and electrical drawings of a two bedroom

residence. The residence is the same for which the architectural drawings were prepared in course DRAF 231 AutoCAD II.

ADID 242
Technical Drawing IV
Three Credits
This course prepare the student in the facet of foundations, situations plan and localization, topographic maps reading and additional topics on surveying like transversal, and card calculation. All work is done in a drawing table. The class concludes with a final project where the student draws the localization of a residential in a level according to the zonification zones.

ADID 250
Portfolio Studio
Three Credits
This studio will focus on the preparation and refinement of a portfolio that encompasses the student's work within the program and any other distinguishing activity. The goal will be the production of a refined, multifaceted presentation of the student goals and creative vision and his or her ability to engage in professional practice.

ADID 270
Internship
Three Credits
All students will be required to take part in a professional internship that employs a wide range of skills and knowledge developed in this degree program. Each student will work with a department advisor to fully realize the potential of this experience in an Architectural Drafting industry or giving professional services to an industry in drawing realization.

ANDE 100
Design Studio I- 2D and 3D Animation (Analog)
Three Credits
This course covers the fundamentals of animation and explores handmade animation techniques and processes. Also, in this course will focused in understanding the relationship of bones and muscles at relax and in movement to be able to translate this to creating and maintaining correct volumes in anatomy drawing. Studying human, species and animal movement through sequential drawings, faces, gesture and poses drawing. Also in this course will show the technique called Stop-Motion. The students will create characters from different materials and manipulate them frame-by-frame to bring them to life. In this class the student will be asked to develop two dimensional characters that are both personally and culturally resonant and imaginative. Particular emphasis will be placed on the expressive power of abstract forms and color. Research, thorough craftsmanship, and strong sophisticated designing will be stressed.

ANDE 150
Design Studio II – 2D Animation (Computer)
Three Credits
This course introduces the student to the creative experience while they learn the potential of this very dynamic form of expression in a computer based medium. Through studio projects, students will be introduced to the basic principles of 2D animation, including timing, movement for animation, and basic editing. The class focuses on process rather than the finished product. Individuality and experimentation will be emphasized. Class exercises will be filmed with digital video cameras, computer edited, and output to DVD.

CTEC 200
Computers and Peripherals
Four Credits
This course covers all components and ancillary systems comprising a PC. It provides an introduction to every component and analyses its functionalities and weaknesses. It analyses the role of each component in supporting an application and the user functional goal. It presents the PC as a package of matched components and dissects all of its internals individually and integrally. Some of the components covered are the CPU, RAM, Display apparatus, ROM, Fixed Disk, USB, Network Adapter, CD-ROM, CDR's, DVD's, Floppy disk, Serial and Parallel ports, Mouse, Keyboard and others. It also covers the most critical peripherals such as, Printers, Scanners, Digital Imagery equipment, Modems and others.

CTEC 210
Operating Systems, Installation and Configuration
Three Credits
This course covers all software components comprising a PC. It provides an introduction to every component and analyses its functionalities and weaknesses. It analyses the role of each component in supporting an application and the user functional goal. It presents the PC as a package of matched components and dissects all of its internals individually and integrally. Some of the software components covered are: the operating system and its sub-components, data communications software components, DOS components, peripheral administration components, Windows Systems architecture, disk operating software, essential user applications, memory management software, and software upgrades management. The course covers in detail the diagnosis, procedures and resolution of software problems. It also deals with the Virus problem and the most effective software solutions. Finally, it covers Networking from a software perspective.

CTEC 340
Programming for the Web
Three Credits
This course provides the student with a basic understanding and skills to program for Web Sites. It covers the basics of Data Base manipulation techniques using MySQL and PERL. It covers matters such as configuration for DBA systems on the Web, Perl scripts, performance, and error handling. Finally, the students are presented with a live example of a simple Web Based DBA control application. The course then focuses on one of today's most important development in suite/environment, the Macromedia Dreamweaver/Flash environment. It covers the complete development cycle using these tools, from plan to publishing and maintenance. Matters such as Dreamweaver graphics, formatting for the Web, style sheets, cascading sheets, dimensional tables, forms, frames, templates, layers, animation and others are covered. It also covers Fireworks image and text manipulations, working with objects, effects, creating buttons, backgrounds, hotspots, sliced images, rollovers, integrating Fireworks images with HTML applications and finally, auditing and publishing a Web Site and post-publishing practices.

DESI 121
Drawing I
Three Credits
In this studio course students will be introduced to the basic drawing skill required for the representation of objects, figures and spaces. The importance of sketching as a means of recording and demonstrating concepts and processes will be emphasized. Black and white media, in particular pencil, pen and marker, will be emphasized. The development of fundamental drawing skills will be stressed and standard manual product illustration skills will be introduced.

DESI 255
Core Studio: Concept Development and Realization I
Four Credits
This is a core studio in this program. Students continue to develop their awareness of specific markets within fashion and increase their ability to target their individual styles to a specific market segment. Students create portfolios of original design lines within the categories of the couture and high-priced industry. They apply knowledge of the couture to design, drape, fit, and construct a mini collection for a particular target market. They develop styles and images through fabric sourcing, market research, and inspirational research. Emphasis is placed on continuity of style within design, presentation and trend analysis through the study of collections showing in London, Milan, Paris and New York. Students learn the principles of draping as a method of designing original garments in three-dimensional forms. Draping techniques and construction skills are developed for more advanced structured garments, along with an understanding of silhouette, proportion and current style trends. Students work on developing their strengths in design to ensure establishment of a defined and strong personal design philosophy.

This course expects innovative design solutions from the students that reach beyond popular forecasts. Personal interpretation and risk-taking are emphasized. The collection designed in this course will be basis for production in Construction Techniques I.

DESI 256
Core Studio: Concept Development and Realization II
Four Credits
This is a core studio in this program. It is an introduction to swimwear and intimate apparel design. Students gain a broad working knowledge of swimsuits, intimate apparel and related apparel, such as cover-ups and beach accessories. Original designs are produced using flat pattern and draping techniques and industry specific construction methods and machinery. In this studio students will develop a collection of their own choosing. They will undertake research and develop a concept that they feel expresses their vision and strengths as a designer. These ideas will be applied in the development of a collection of a dozen looks. Working with specialized crafts studios will be stressed when appropriate. The collection designed in this course will be the basis for production in Construction Techniques II.

FADE 100
Basic Sewing
Three Credits
This course is designed to help the student become familiar with the basics of machine sewing, get confident handling a machine, and develop a range of related skills, like looking at different needles suitable for fabric types, practicing standard stitches, seaming straight, curved and gathered edges, learning most common seam types (as French seams and flat fell seams), etc.

FADE 125
Representing the Body
Three Credits
This course focuses on the human form. Understanding human anatomy will be the point of departure for exercises that employ various media to represent the body in action and repose. In addition to developing research skills, students will focus on documenting the body through digital photography, drawing, collage and digital rendering, using Adobe Illustrator and various fashion Computer Aided Design programs.

FADE 131
Fashion Concept Development I
Three Credits
This is a core studio in this program. Each student's primary goal is the development of new fashion concepts. In the first semester students will use their local environment as the site from which ideas will be culled. These ideas will be applied in the development of a collection of a dozen looks. Women's wear will be stressed. Clothing designed in this course will be basis for clothing production undertaken in the second semester's Studio Methods and Structures. This course will focus on the economies and production standards of the prêt-à-porter industry.

FADE 132
Fashion Concept Development II
Three Credits
This is a core studio in this program. Each student's primary goal is the development of new fashion concepts. In the second semester, the research focus of this course will be on global trends in the sportswear and active wear industries and their niche markets. These ideas will be applied in the development of a collection of a dozen looks. Men's wear and children's apparel will be stressed. The collection designed in this course will be basis for production in Studio Methods and Structures. This course will focus on the economics and production standards of the prêt-à-porter industry.

FADE 140
Fashion Drawing
Three Credits
In this studio students will continue to build upon skills developed in Representing the Body and will employ those skills in special assignments related to the development and production of a collection of poses and bodies. Textiles illustration will be addressed. The primary work of this class will be drawing from the live clothed model to develop industry-standard fashion illustration skills. The maintenance of a sketchbook and the production of sketch drawing will be stressed.

FADE 150
Studio Methods & Structures
Three Credits
The basis of work in this course will be traditional tailoring techniques, from draping to the technology of using various materials. The creation of forms that interact with the human body will be explored. Experimental approaches suggested by students' designs produced in Fashion Concept Development I will also be explored. This course is a hands-on clothing construction studio. Sewing skills will be stressed and patternmaking skills will be introduced.

FADE 200
Patternmaking
Three Credits
Traditional patternmaking skills will be the focus of this course. The instructor will take students through a series of exercises that develop these skills. Primary focus will be placed on the development of patterns for designs created by the students as part of program coursework.

FADE 210
Construction Techniques I
Three Credits
The work of this course will be linked to designs developed in Core Studio Concept Development and Realization I. Students will continue to develop their sewing, patternmaking and construction skills with a particular focus on collaboration with other technicians and craftspeople. This course will introduce the students to the sewing techniques practiced in the finest haute couture ateliers around the world and provide the basis for understanding couture. Students will learn couture techniques in cutting, hand stitching, seam and hem finishes, pocket construction, pressing, and finishing.

FADE 215
Digital Fashion Design
Three Credits
This course will focus on the range of digital technologies used in the fashion industry. With a primary focus on Computer-Aided-Design software, students will learn flat pattern drafting, and fashion illustration technologies that will enhance the accuracy of their construction skill and increase their ability to visualize color and other potential variations in their designs.

FADE 220
Introduction to Costume Design
Three Credits
In this studio the students will be introduced to the costume design world of the theater, film and television. The course includes a historical analysis of clothing and textiles, a research phase and an evaluation phase, leading the student to the design of the graphic project. This design is supported by the practical portion of the course, the laboratory. In addition to historical costumes, other costumes will be created according to the student's inclinations, through the personal interpretation of various themes. Encounters with experts from the field of theater, film and television are also included in this course.

FADE 240
Portfolio Studio
Three Credits
This studio will focus on the preparation and refinement of a portfolio that encompasses the student's work in the program and any other distinguishing activity. The goal will

be the production of a refined, multifaceted presentation of the student's goals and creative vision, and his or her ability to engage in professional practice.

FADE 255
Core Studio: Concepts and Realization I
Three Credits
This studio is a core studio in this program. Students continue to develop their awareness of specific markets within fashion and increase their ability to target their individual styles to a specific market segment. Create portfolios of original design lines within the categories of the couture and high-priced industry. Apply knowledge of the couture to design, drape, fit, and construct a mini collection for a particular target market. Develop styles and images through fabric sourcing, market research, and inspirational research. Emphasis is placed on continuity of style within design, presentation and trend analysis through the study of collections showing in London, Milan, Paris and New York. Students learn the principles of draping as a method of designing original garments in three dimensional forms. Draping techniques and construction skills are developed for more advanced structured garments along with an understanding of silhouette, proportion and current style trends. Students work on developing their strengths in design to ensure establishment of a defined and strong personal design philosophy. This course expected innovative design solutions from the students that reach beyond popular forecasts. Personal interpretation and risk-taking are emphasized. The collection designed in this course will be basis for production in Construction Techniques I.

FADE 256
Core Studio: Concepts and Realization II
Six Credits
This studio is a core studio in this program. An introduction to swimwear and intimate apparel design. Students gain a broad working knowledge of swimsuits, intimate apparel and related apparel such as cover-ups and beach accessories. Original designs are produced using flat pattern and draping techniques and industry specific construction methods and machinery. In this studio students will develop a collection of their own choosing. They will undertake research and develop a concept that they feel expresses their vision and strengths as a designer. These ideas will be applied in the development of a collection of a dozen looks. Working with specialized crafts studios will be stressed when appropriate. The collection designed in this course will be basis for production in Construction Techniques II.

FADE 260
Concept Presentation
Two Credits
Presentation is essential to understanding and marketing fashion. In this course students will address the marketing of their designs. They will develop branding for themselves as unique designers that will include marketing strategies and the production of a runway show. This show will be a by-invitation event designed to introduce the designer to the general public.

FADE 270
Internship
Three Credits
All students will be required to take part in a professional internship that employs a wide range of skills and knowledge developed in this degree program. Each student will work with a department advisor to fully realize the potential of this experience in a fashion design industry or by giving professional services to an industry in fashion realization.

FSDE 100
Freshman Seminar
Three Credits
This course will provide students with activities, techniques and academic experiences in terms of design discipline. Students will able to identify and develop personal and academic skills to improve their performance.

GRAD 145
Communication Studio
Three Credits
This course introduces information design and live presentation skills to designers. Desktop publishing and graphic design skills employed in the development of documents and presentation materials ranging from business cards and announcements to booklets, research documents, concept presentations and exhibition materials will be focused upon. In addition, significant attention will be paid to students live presentation skills. These presentations will be coached, scripted, videotaped and critiqued. For this course Apple computers and video recording studio are required.

GRAD 201
Graphic Communication Media
Three Credits
This is an introductory course on the fundamentals and concepts of the media of graphic communication. Students study the different graphic communication media, such as digital video for multimedia work, graphic design and typography, effective communication for printing, design and composition of pages, and illustrations, as well as the fundamentals of design. Students must stay current and study the aspects and new developments in the publishing industry. They also analyze technological development and its relationship with traditional operations and with emerging demands in methods and creations of design, management, programming and distribution.

GRAD 310
Graphic Design Studio 3
Six Credits
In this course the student will obtain knowledge in the area of interface design. Beginning with the creation of a non-linear conceptualization in the graphic design area, students will work with the principles of dynamism and interaction in the design. Students start to work with the design of buttons, menus, bars, links and graphics in movements applying the basic knowledge of design to a multimedia project.

HIDE 100 @
History of Art
Three Credits
This course surveys the history of the representation of the human body as a record of the social, technological, environmental and political circumstances of a period. The goal of this course is to establish an understanding among young designers of art as an expression of the desires, aspirations, needs, esthetics, and available resources of subjects/users throughout history. From earliest representations of humans through current film and digital media that envision the future, human beings and their representations of environment will be examined.

HIDE 105
Fashion History
Three Credits
This seminar course traces the development of fashion and body adornment in Asia, Africa, Europe, Greece and the Roman Empire through the establishment of Paris, Milan, New York and Latin America as distinct fashion capitals, as well as the establishment of independent fashion centers across the globe. Economic, political, technological, environmental and cultural history will be discussed in relation to the evolution of fashion.

INDI 316
Business Practice
Three Credits
This course will focus on business practices that impact design industries. Topics to be covered will include: team practices, organizational structures, market size, penetration and shares, competitive analysis, product lineup, licensing, copyrights, patents, intellectual property, pricing and branding. Students will also be introduced the process of plan development, as well as to the uses and implementation of business plans.

WEDE 100
Web Design and Graphics Studio 1
Three Credits
This course covers issues such as computers versus software, as well as performance issues. Types of connections to the Internet are discussed in detail. Safety, security troubleshooting, composing effective mail, net-etiquette, organizing information, introduction to e-commerce, customizing tools, chat and online synchronous communications, forums, and blogs. Finally, it covers basic design publishing language, HTML and XHTML and introduces Web design and publishing concepts.

WEDE 200
Web Design and Graphics Studio 2
Three Credits
This course focuses on the principles of Web usability, client purpose and needs as the key element in successful Web Design. Simplicity of design is introduced as a practical Web Design principle. Some of the topics covered are: age loading time, graphic design for the Internet, writing for the Web, document size and readability, fonts for the Web, color schemes and visual impact, and .site architecture vs. content Students will also be introduced to some software tools and effective web site navigation strategies.

WEDE 250
Web Design and Graphics Studio 3
Three Credits
The student begins the course learning the fundamentals of digital imaging, and audio combined with Web technologies. The course will also introduce the student to interactive media authoring and video technology. Students will learn programming and scripting techniques using Flash, JavaScript and ActionScrip for design, animation, and data handling. They will study 2D and 3D animation using computer modeling and an animation software program as the primary tool. This course will emphasize the creation of animated sequences and GIF animation for multimedia applications.

WEDE 260
Web Design and Graphics Studio 4
Three Credits
This course will teach the student through the methods used in dynamic websites' integration. Will create content types and management, social media and mobile applications.

WEDE 270
Internship
Three Credits
All students will be required to take part in a professional internship that employs a wide range of skills and knowledge developed in this degree program. Each student will work with a program advisor to fully realize the potential of this experience in a web design industry.

WEDE 280
Portfolio Studio
Three Credits
This studio will focus on the preparation and refinement of a portfolio that encompasses the student's work with in the

program and any other distinguishing activity. The goal will be the production of a refined, multifaceted presentation of the student goals and creative vision and his or her ability to engage in professional practice.

SCHOOL OF HEALTH SCIENCES

VISION

Being a school recognized for excellence in its academic programs, its specialized accreditations, their contributions to research, and high standards in community services framed within an entrepreneurship, interdisciplinary, and international perspective.

MISSION

The School of Health Sciences prepares professionals with specialized curriculums that are regulated by specialized accreditation agencies standards. Our graduates are entrepreneurs leaders committed to prevention, holistic health, and research; prepared to serve Puerto Rico and other countries and to perform their duties with strong ethical and moral principles from an interdisciplinary and global perspective.

OBJECTIVES

Our main objectives are:

1. To respond to the needs of health professionals in our catchment area.
2. To establish a continuous improvement system in our programs to ensure their relevance and applicability to our society.
3. To develop health professionals capable of working in Puerto Rico, as well as in other Spanish-speaking and English-speaking communities.
4. To contribute significantly to the development of students with high humanistic values.
5. To establish academic offerings with the participation of customers, students, health services providers, and accreditation agencies to ensure an effective professional practice that responds to the needs of the community.
6. To effectively implement technology integration in all of our programs.
7. To maximize the relevance of our academic offerings utilizing innovative strategies that will facilitate the transfer of knowledge to the practice of health professions and promote the acquisition of an integrated body of knowledge to be used in solving problems.
8. To establish local and international strategic alliances with health care institutions that can provide practice settings for faculty development and for exchange of resources in the areas of teaching and research.
9. To establish local and international alliances with other universities to increase our students' opportunities to participate in exchange programs that will broaden their vision of the health professional role.
10. To develop basic and applied research projects in the area of health, geared to the improvement of the quality of life in Puerto Rico and other communities.

GOALS

1. Respond to the health needs of our communities within a global perspective.
2. Provide an educational setting with balanced efforts among academic offerings, clinical services, and research endeavors.
3. Establish a system of continuous improvement in our programs to ensure their relevance and applicability.
4. Develop highly trained health professionals prepared to serve individuals and groups from diverse cultural, social and economic backgrounds.
5. Develop health professionals with high humanistic values.
6. Integrate technology in all of our administrative, academic, research and clinical activities.
7. Facilitate transference of scientific knowledge to the practice of the health professions.
8. Establish national and international alliances for faculty development, exchange of resources, and student exchange programs.
9. Foster a high degree of professionalism as health care providers within an interdisciplinary perspective.
10. Establish innovative programs prepared with the collaboration of community stakeholders, students, patients and accreditation agencies.
11. Promote an evidence-based practice setting.
12. Utilize service learning as the primary educational methodology for all academic programs.

SPECIALIZED ACCREDITATIONS

Speech-Language Pathology
Accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology of the American Speech-Language-Hearing Association, 2200 Research Boulevard #310, Rockville, Maryland 20850, 800-498-2071 or 301-296-5700.

Nursing Programs: Graduate and Undergraduate
Accredited by the Commission on Collegiate Nursing Education (CCNE) from the American Association of Colleges of Nursing. One Dupont Circle, NW Suite 530 Washington, DC 20036.

Nutrition and Dietetics
Accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) from the Academy of Nutrition and Dietetics. 120 South Riverside Plaza, Suite 2000 Chicago, Illinois 60606-6995.

Council on Naturopathic Medical Education (CNME)

Naturopathic Medicine
Authorized for a candidacy evaluation site visit by the Council on Naturopathic Medical Education (CNME). PO Box 178, Great Barrington, MA 01230.

FACULTY

Charmaine Alfonso / Adjunct Faculty
EdD, MS-RD Universidad Interamericana de Puerto Rico

Piyali Bhattacharya / Associate Professor
PhD, Jadavpur University of Calcutta, India

Nydia Bou / Professor
EdD, Universidad Interamericana de Puerto Rico

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DNP, University of Alabama

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Alana Marrero/ Instructor
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Mildred Negrón / Assistant Professor
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Shaiana Negrón Pagán / Assistant Professor
DVM, Ross University

Héctor Osuna León / Instructor
MS, Universidad de Puerto Rico

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Lillian R. Pintado / Associate Professor
AuD-CCC-A, Salus University

Angel L. Rivera / Assistant Professor
MD, Universidad de Puerto Rico

Grisel Rodriguez / Instructor
MS, Universidad del Turabo

Awilda Rosa Morales/ Assistance Professor
EdD, Universidad del Turabo

Carmen Santiago / Instrutor
MSN, Pontificia Universidad Católica de Puerto Rico

Iraida Vega / Instructor
MPH, Universidad de Puerto Rico

Milva Vega / Assistant Professor
ND, National College of Naturopathic Medicine

Rosalyn Vega / Instructor
MS, Universidad Metropolitana

PROGRAMS OF STUDY

ASSOCIATE DEGREE IN VETERINARY TECHNICIAN

The program prepares veterinary technicians to promote the well-being of society and of animals with ethic under the current laws. Students will develop theoretical knowledge and practical management skills of species. They will participate in veterinary public health program to guard the health of humans through educational and prevention actions and the application of hygiene practices.

Total Credits	**60**
General Education Courses	**12**
Core Courses	**11**
Concentration Courses	**37**

General Education Courses		**(12 credits)**
FSHS 105	Freshman Seminar	3
BIOL 107	Biology Science for Veterinary Students	3
ENGL 152	Fundamentals of Reading and Writing	3
SPAN 152	Fundamentals of Reading and Writing	3

Core Courses		**(11 credits)**
BIOL 300	Microbiology Health Sciences	3
BIOL 300L	Microbiology Lab	1
PSYC 123	Survey Course in Psychology	3
CHEM 101	Applied Chemistry	3
CHEM 101L	Applied Chemistry Lab	1

Concentration Courses		**(37 credits)**
AVET 110	Introduction to Veterinary Sciences	3
AVET 101	Veterinary Math	3
AVET 120	Anatomy and Physiology of Domestic Animals	4
AVET 130	Introduction to Nursing Veterinary	3
AVET 220	Common Diseases in Domestic Animals	3
AVET 230	Techniques and Protocols of Veterinary Technology I	3
AVET 231	Techniques and Protocols of Veterinary Technology II	3
AVET 240	Animal Pharmacology and Toxicology	3
AVET 245	Basic Radiology in Domestic Animals	3
AVET 260	Management, Practice and Farm Animal Disease	3
AVET 280	Clinical Practice I	3
AVET 281	Clinical Practice II	3

ASSOCIATE DEGREE IN NURSING SCIENCES

The Associate Degree Nursing Sciences prepare students to be generalist nursing professionals and to practice primary, secondary and tertiary clinical functions. Fundamental knowledge will be provided in the areas of nursing.

Total Credits	**60**
General Education Courses	**18**
Core Courses	**8**
Concentration Courses	**34**

General Education Courses		**(18 credits)**
BIOL 103	Survey of Biological Sciences	3
ENGL 152	Fundamentals of Reading and Writing	3
FSHS 105	Freshman Seminar	3
MATH 120	Introductory Algebra	3
PSYC 123	Psychology Survey	3
SPAN 152	Fundamentals of Reading and Writing	3

Core Courses		**(8 credits)**
BIOL 300	Microbiology	3
BIOL 300L	Microbiology Lab	1
BIOL 303	Human Biology I	3
BIOL 303L	Human Biology I Lab	1

Concentration Courses		**(34 credits)**
NURS 201	Fundamentals of Nursing	5
NURS 201L	Fundamentals of Nursing Lab	0
NURS 203	Pharmacology	4
NURS 303	Medical Surgical Nursing	5
NURS 303L	Medical Surgical Nursing Lab	0
NURS 304	Maternal & Child Nursing	5
NURS 304L	Maternal & Child Nursing Lab	0
NURS 305	Nursing Care of Children and Adolescents	5
NURS 305L	Nursing Care of Children and Adolescents Lab	0
NURS 404	Mental Health Nursing	5
NURS 404L	Mental Health Nursing Lab	0
NURS 205	Pathophysiology	3
NURS 212	Nursing Care of the Adult	3

COURSE DESCRIPTIONS

(Courses marked with @ could be offered in both modalities, traditional or on-line.)

AVET 101
Veterinary Math
Three Credits

Review of basic math concepts that are carried out daily in the practice of the profession. Discuss the concept of ratio and proportion, estimation and significant figures, as well as the method for augmentation and reduction formulas, preparations and expressed the percent dilution and concentration. Emphasis in the International System of Units, the English System and equivalents that are used to convert between them. Basic mathematical operations are performed and their application to quantitative problem solving as part of professional roles for the veterinary technician.

AVET 110
Introduction to Veterinary Sciences
Three Credits

This course describes the roles and responsibilities of the veterinary technician and studies alternatives, labor and professional organizations. Includes safety rules, ethics and laws that apply to the exercise of their profession and the welfare of animals in Puerto Rico. This course also describes medical terms and economics concepts for the veterinary hospital and veterinary clinics. It identifies the main breeds of domestic animals and defines the concepts of behavior, restraint, and security. It also shows the basic techniques of assessment, physical examination, sampling and vaccination protocols.

AVET 120
Anatomy and Physiology of Domestic Animals
Four Credits

Histological, anatomical, physiological, skeletal system, muscular, epithelial, respiratory, cardiovascular, urinary, endocrine, nervous and immune systems Study. Emphasizes in the interrelation between the systems for normal body functioning. Studies the terminology relating to anatomy and animal physiology. The course is modeled after the dog and compared with other domestic animals using skeletons, models, audiovisual dissection specimens and laboratory experiences.

AVET 130
Introduction to Nursing Veterinary
Three Credits

This course will provide the student with patient monitoring techniques in their work scenarios, particularly the hospitalized patient. It will demonstrate therapy techniques, housing and nutrition in a comprehensive manner. Instructs in the ways of securing, therapy and medication management. Presents the preparation and practice and patient care before, during and after different surgical procedures.

AVET 220
Common Diseases in Domestics Animals
Three Credits

This course exposes students to the pathophysiological processes of common infectious diseases. Relates the respective clinical symptoms with the main forms of diagnosis and therapy in large clinical scenarios. It will focus on practical concepts of immunity and prevention of infectious diseases in domestic animals, besides familiarizing students with the prevention and diagnosis of zoonotic diseases.

AVET 230
Techniques and Protocols of Veterinary Technology I
Three Credits

This course instructs in the collection, analysis and interpretation of blood samples (CBC, microscopic evaluation, coagulation, chemical and serological) and urine. Discusses diagnostic tests and treatments for anemia. Further instructs the student in the preparation of cytology samples (exudate, transudate, aspiration, printing, bone marrow, ear, and vaginal). It also discusses methods and tests for pregnancy diagnosis, ocular diagnostic tests (including tonometry, fluorencine staining, and tear production test - Schirmer tear test). In this course we will be working with simulators instead of live animals to enhance the skills and expertise in the techniques and protocols of veterinary technology.

AVET 231
Techniques and Protocols of Veterinary Technology II
Three Credits

This course discusses techniques and protocols for medical emergencies, poisonings and intensive care. The student is instructed in basic necropsy techniques and procedures. It discusses and demonstrates the effective management and patient safety in all phases of anesthetic procedures. Instructs in the handling of laboratory animals, exotic birds, small mammals and fish. In this course we will be working with simulators instead of live animals to enhance the skills

and expertise in the techniques and protocols of veterinary technology.

AVET 240
Animal Pharmacology and Toxicology
Three Credits
This course provides students the opportunity to develop critical thinking concepts related to pharmacology and applied to the process of veterinary medicine. We describe the pharmacological principles of prescription drugs in the field of veterinary medicine. Students will understand the veterinary products and the latest drug developments. Training the student in the various techniques of administration and dosage of medicine for patients in veterinary care.

AVET 245
Basic Radiology in Domestic Animals
Three Credits
This course relates the student with the basics of radiological sciences and their usefulness in the field of veterinary medicine. The students become related to terminology and develop the skills to produce a diagnostic quality radiographic image.

AVET 250
Grooming and Veterinary Psychology
Three Credits
Description of the domestic animal characteristics and their respective grooming styles for the most common breeds. Discussion of the different ways of categorizing domestic animals (size, color, characteristics, coat type). Review of grooming subjects including equipment, techniques, cares, preparation, bath, drying and clipping.

AVET 260
Management, Practice and Farm Animal Disease
Three Credits
This course discusses the husbandry of farm animals including breeds, behavior, reproduction, nutrition and support. It discusses the best practices for proper management of farm animals. Demonstrate medical and surgical nursing for large species. It also discusses techniques in therapy, necropsy, dentistry and assisted reproduction for farm animals.

AVET 280
Clinical Practice I
Three Credits
This course and lab integrate the knowledge acquired by placing students in practice ruled centers. Students will be working directly with a veterinarian, executing the procedures requested and needed to diagnose and treat small animals. They will be monitored and evaluated in carrying out their duties as future veterinary technician. The veterinarian and vet technicians will be serving as a supervisors, counselors and advisors. The clinical portion of the course will consist of 14 hours per week making a total of 200 hours.

AVET 281
Clinical Practice II
Three Credits
This course and lab integrate the knowledge acquired by placing students in practice ruled centers. Students will be working directly with a veterinarian, executing the procedures requested and needed to diagnose and treat animal's farm. They will be monitored and evaluated in carrying out their duties as future veterinary technician. The veterinarian and vet technicians will be serving as a supervisors, counselors and advisors. The clinical portion of the course will consist of 14 hours per week making a total of 200 hours.

FSHS 105
Freshman Seminar
Three Credits
The focus of this course is to strengthen basic knowledge and skills at a personal, intellectual and technological level necessary to succeed in the activities of academic performance and adjustment to university life. Each student will participate in mentorship activities that will continually build upon skills and knowledge base in the advancement of student development. Important emphasis is given to the integral development of humanistic fulfillment and academic success. The student is guided through a series of activities on the university campus exposing them to the services offered by the institution, and the School of Health Sciences. The goal will translate into the student feeling secure and confident in managing and solving personal and academic situations.

NURS 201
Fundamentals of Nursing
Five Credits
This theoretical and clinical course provides an introduction to the historical, sociopolitical, and legal concepts of the nursing profession in the U.S., Puerto Rico, and in other Hispanic communities. Emphasis is placed on the development of basic nursing skills, which are needed for promotion of health and maintenance of individuals, families and communities. The student is guided to consider the individual's motivation in seeking health care and how these problems interfere with the person's daily activities. Clinical practice provides opportunities for development of the skills needed in hospital and community settings to carry out the nursing role. Emphasis is placed on the client as a holistic being and the use of critical thinking when intervening in health and illness with a variety of individuals from different cultural/social backgrounds and age groups.

NURS 203
Pharmacology
Four Credits

This course presents students with the opportunity to develop critical thinking related to pharmacology concepts applied to the nursing process. The content focuses on principles of pharmacology, drug classifications, administration routes, dosage calculations, therapeutic use, disinfection procedures, basic concepts of nontraditional medicine and drug interactions. Advantages and disadvantages of pharmacotherapy and the patient's well-being are discussed. In addition, the course includes content on bioterrorism agents, drugs for HIV/AIDS, medication errors and gene therapy.

NURS 205
Pathophysiology
Three Credits

This course presents the basic concepts of human pathophysiology and explains the processes of specific diseases. The course is divided in two parts: the microsystem and the macrosystem. Part one reviews cellular responses to infection, environmental factors, genetics, diet, cancer, and stress. Part two is organized by body systems. Students are expected to have a basic knowledge of microbiology, chemistry, anatomy and physiology. Relevant case studies are discussed in class, and aspects such as risk factors pertinent to pediatric, aging and women's health are presented.

NURS 212
Nursing Care of the Older Adult
Five Credits

This course focuses on the care of the older adult. Prepare undergraduate students to provide holistic, professional nursing care. It also present common problems on geriatric syndromes and then impact on functional status of the older adult and the interdisciplinary team look as effective strategy in their care. It's focus primarily on functional assessment, effective communication and nursing interventions to foster functionally even through of risk and the aging process.

NURS 303
Medical Surgical Nursing
Five Credits

This theoretical and clinical course prepares students to intervene with individuals in adult and elderly stages who present physiological alterations affecting their homeostasis. The focus is on the development of knowledge based on application of the nursing process, communication skills, critical thinking and therapeutic interventions, as essential to ensuring optimal care. The course includes theory, nursing skills laboratory, clinical experiences (hospitals and communities), and seminars. The hospitals used for clinical practice are at secondary and tertiary levels of care.

NURS 304
Maternal and Child Nursing
Five Credits

This theoretical and clinical course focuses on concepts of the childbearing patient, her infant and the impact on her family. The nursing process is presented as a guide for intervention with families during the normal human development process including: pregnancy, delivery, post partum, and care of the newborn. Health promotion is emphasized. Epidemiology, infectious, acute, and chronic diseases are discussed, taking into consideration maternal and newborn needs in community and hospital care settings, from a biopsychosocial perspective. At the beginning of the course, specific maternal and childcare skills are practiced in a nursing skills laboratory. After this practice, students participate in different experiences within the clinical setting.

NURS 305
Nursing Care of Children and Adolescents
Five Credits

This theoretical and clinical course focuses on the care of children and adolescents. The student is introduced to the concepts of nursing care from the first year of life through adolescence. Basic nursing skills are developed for the prevention of illness, health promotion, and health maintenance in this age group. Emphasis is placed on the client as a holistic being, on applying critical thinking, and on promoting the use of nursing diagnosis according to the North American Nursing Diagnosis Association (NANDA), with nursing interventions (NIC) and outcomes (NOC) adequate to this age group.

NURS 404
Mental Health Nursing
Five Credits

The focus of this theoretical and clinical course is the promotion of health and provision of opportunities for clients to maximize their ability to live, work, socialize, and learn in the communities of their choice. The practice of mental health nursing is presented from the perspective of helping people manage difficulties, solve problems, decrease emotional pain, and promote growth, while respecting their rights to their own values, beliefs and decisions. Nursing students are encouraged to engage in self-analysis in order to increase their understanding and self-acceptance. This is important because nurses who are able to clarify their own beliefs and values are less likely to be judgmental or to impose their own values and beliefs on clients. Neurobiological, psychosocial, sociological, and spiritual

theories are discussed, to help students understand clients and their experiences and to help them engage in the healing process. Emphasis is given to development of effective communications skills, application of the nursing process, community mental health, critical thinking and cultural diversity.

SCHOOL OF NATURAL SCIENCES AND TECHNOLOGY

The School of Science and Technology (SST) at Universidad del Turabo responds to the educational needs of a society undergoing rapid economic growth and technological development. The School provides a rich learning environment in which students may pursue programs of higher education that will advance their career objectives while at the same time motivating them to continue to learn and grow intellectually throughout life. The Institute of Chemical and Biological Technology is located in the School.

It is the mission of the School to foster liberal education, to encourage the generation of knowledge and to contribute to the well-being of the community. The School promotes lifelong learning, research, social and professional responsibility and growth. To these ends, the School challenges students to think critically and intuitively, recognize and value diverse perspectives, and to solve problems creatively and with perseverance.

Four majors in natural sciences are offered: general science, biology, chemistry and environmental chemistry. Each major offers basic courses as well as courses in biology, chemistry, physics and mathematics. A variety of electives are offered to ensure a well-rounded and complete education.

The objectives of the School are to:

1. Develop within graduates a broad proficiency in scientific knowledge and professional competence.
2. Provide high quality academic and practical training that will enhance the learning experience.
3. Develop in graduates the ability to think and analyze solutions to contemporary scientific problems, using the scientific method.
4. Promote and develop research at all levels.
5. Prepare students to use modern technology and instruments in their careers.
6. Establish joint research projects with other institutions, national laboratories and industries, thus promoting diversity among students and faculty.
7. Foster lifelong learning and intellectual growth.
8. Instill in graduates a sense of values which will foster responsible participation in civil and public affairs.

Graduation Requirements

Undergraduate students of Universidad del Turabo will be eligible to receive academic degree after meeting the requirements and procedures stablished by the institution and the following:

- Completion of the number of credit hours required for the degree with a minimum Grade Point Average of 2.0. Students should obtain a minimum Grade Point Average of 2.30 in major courses and 2.00 in other courses.

FACULTY

María F. Barberena / Associate Professor
PhD, Universidad de Puerto Rico

Eva L. Cáceres-Roure / Associate Professor
MS, Universidad de Puerto Rico

Sharon A. Cantrell-Rodríguez / Professor
PhD, University of Georgia

José J. Ducongé-Hernández / Professor
PhD, University of Moscow

Anastacio Emiliano-Sosa / Professor
PhD, Universidad de Puerto Rico

Samuel I. Flores-Colón / Assistant Professor
PhD, University of Chicago

Teresa Lipsett-Ruiz / Professor
PhD, Fordham University

César M. Lozano-Paulino / Professor
PhD, Universidad de Puerto Rico

Francisco Márquez-Linares / Professor
PhD, Universidad de Valencia

Santander Nieto-Ramos / Associate Professor
PhD, Universidad de Puerto Rico

José R. Pérez Jiménez / Professor
PhD, Rutgers State University

Olga L. Quintero-Fonseca / Associate Professor
EdD, Universidad de Puerto Rico

Agustín Ríos-Ramos / Professor
PhD, Universidad de Puerto Rico

Angel E. Rivera-Collazo / Professor
PhD, University of Illinois

José E. Sánchez-Villafañe / Associate Professor
MS, Universidad de Puerto Rico

Fred Schaffner Gibbs / Professor
PhD, University of Miami

Ruth Vallejo-Flores / Associate Professor
MS, Universidad de Puerto Rico

Ileana González / Associate Professor
PhD, Universidad de Puerto Rico

Yaritza Hernández / Assistant Professor
PhD, Universidad de Puerto Rico

Maria Del Cotto / Assistant Professor
PhD, Universidad del Turabo

Lisandro Cunci Pérez / Assistant Professor
PhD, Universidad de Puerto Rico

Catalina Dávila / Assistant Professor
PhD, Universidad de Puerto rico

Adrinel Vázquez / Associate Professor
PhD, Universidad de Puerto Rico

Julio León / Instructor
MS, Universidad de Puerto Rico

Magda Flores / Assistant Professor
DBA, Universidad del Turabo

LABORATORY TECHNICIANS

Rafael Gómez / Mathematics

Angel Ojeda / Mathematics

Lilliam Ruiz / Mathematics

Francisco Rivera / Biology

Zulma P. Ortiz / Biology

Maritza Rodríguez / Biology

Carlos Neira / Physics

Francisco Díaz / Physics

Carmen Bonilla / Chemistry

Verónica Castro-Simmons / Chemistry

Ramón Polanco / Instrumentation

PROGRAMS OF STUDY

ASSOCIATE DEGREE IN BIOPHARMACEUTICAL TECHNOLOGY

The biopharmaceutical technology program enables our graduates to opt for jobs in both manufacturing and biotechnology companies, with an emphasis on industry trends and the latest technology available to develop advanced medicines that improve human health. The student receives extensive training in science and regulations applicable to the biotechnology and pharmaceutical process.

Total Credits	**58**
General Education Courses	**26**
Core Courses	**8**
Major Courses	**24**

General Education Courses		**(26 credits)**
MATH 120	Introductory Algebra	3
MATH 120L	Introductory Algebra Laboratory	0
MATH 121	Intermediate Algebra	3
MATH 121L	Intermediate Algebra Lab	0
MATH 151	College Algebra	4
MATH 151L	College Algebra lab	0
MATH 152	Trigonometry and Analytic Geometry	4
MATH 152L	Laboratory Trigonometry and Analytic Geometry	0
ENGL 152	Fundamentals of Reading and Writing	3
SPAN 152	Fundamentals of Reading and Writing	3
SPAN 250	Writing Techniques	3
HUMA 111	Civilizations and Universal Culture I	3
GESC 105	Freshman Seminar	3

Core Courses		**(8 credits)**
BIOL 100	Applied Microbiology	3
BIOL 100L	Applied Microbiology Lab	1
CHEM 101	Applied Chemistry	3
CHEM 101L	Applied Chemistry Lab	1

Con Courses		**(24 credits)**
BIOT 101	Introduction to Biotechnology	3
BIOT 103	Cell and Molecular Biology for Biotechnology	3
BIOT 103L	Cell and Molecular Biology for Biotechnology Lab	1
BIOT 210	Regulations and Good Manufacturing Practices	3
BIOT 240	Validation	3
BIOT 231	General Manufacturing Biotechnology I	3
BIOT 231L	General Manufacturing Biotechnology I Lab	1
BIOT 250	General Manufacturing Biotechnology II	3
BIOT 250L	General Manufacturing Biotechnology II Lab	1
PHOP 255	Water Purification and Treatment Systems in Pharmaceutical & Chemical Processes	3

ASSOCIATE DEGREE OF SCIENCE IN FOOD TECHNOLOGY AND SAFETY

The Associate of Science program in Food Technology and Safety allows students to understand the processes, regulations and science related to the manufacturing of foods and food preservation. Alumni will be able to work in the food industry or in the government agencies and will be able to make decisions regarding the safety of food products. Students will apply their knowledge in their practicum.

Total Credits	**60**
General Education Courses	**21**
Core Courses	**17**
Major Courses	**22**

General Education Courses		**(21 credits)**
MATH 120E	Introductory Algebra	3
MATH 120E-L	Laboratory of Intensive Algebra	0
ENGL 152	Fundamentals of Reading and Writing	3
ENGL 153	Advanced Communicative English	3
SPAN 152	Fundamentals of Reading and Writing	3
SPAN 250	Writing Techniques	3
SOSC 111	Introduction to Social Sciences I	3
GESC 105	Freshman Seminar	3

Core Courses		**(17 credits)**
BIOL 100	Applied Microbiology	3
BIOL 100L	Laboratory of Applied Microbiology	1
CHEM 101	Applied Chemistry	3
CHEM 101L	Laboratory of Applied Chemistry	1
GESC 107	Introduction to Computers	1
SCIE 250	Communication and Teams in the Workplace	3
GESC 264	Introduction to Science Research	3

Concentration Courses		**(22 credits)**
BIOL 301	Food Microbiology	3
BIOT 210	Good Manufacturing Practices	3
FOOD 101	Introduction to food technology	3
FOOD 201	Microbial Food Safety Hazards and Quality Control	3
FOOD 250	Food safety and protection related to public health (HACCP)	3
FOOD 300	Food Laws and Regulatory Processes	3
MANA 260	Managerial Strategies	3
PTTE 200	Internship in Technology	1

COURSE DESCRIPTIONS

(Courses marked with @ could be offered in both modalities, traditional or on-line.)

BIOL 100
Applied Microbiology
Three Credits

The course emphasizes the fundamental principles of microbiology and the role of microorganisms in industrial processes. Topics to be included are the characteristics, structure, function, and identification, use of the microscope and staining techniques, isolation of bacteria in pure cultures, handling cultures of aerobic and anaerobic bacteria, biochemical tests, automatic and semi-automatic techniques to identify bacteria cultures.

BIOL 100L
Applied Microbiology Laboratory
One Credit

Laboratory course aimed at students of the associated degrees programs, in which basic concepts of microorganisms (bacteria, viruses, fungi and protozoa) from its structure and physiology to applications that are currently used will be explore. Students will learn and practice aseptic techniques to handle and manipulate microorganisms, including the use of different equipment such as a microscope, incubators, colony counters, and culture transferring tools. Students will perform staining and other basic techniques for the study of microorganisms at the structural and metabolic level. Also, environmental factors affecting growth and development of microbial populations will be study. All activities are designed taking into account the safety of students and the environment and respecting ethical principles in the handling of microbial cultures.

BIOL 301
Introduction to Food Microbiology
Three Credits

Introductory microbiology course for students; interested in careers related to human health and the food industry. The course is aimed at students who do not possess a prior course of microbiology. The itinerary begins with the basics in Microbiology (diversity, classification, microbial growth). Be studied also issues aimed at understanding the interaction pathogen-host as: microorganisms with pathogenic potential, normal microflora, epidemiology, immunology and diseases. The course will be study issues related to the microorganisms of importance in the food (food spoilage, fermented foods and other products of microbial origin), regulations, practical problems and bioethics of the food industry. The course will analyze how microorganisms impact human health and the quality of the food using a practical approach with application to daily life and to the future profession of the student.

BIOT 101
Introduction to Biotechnology Industry
Three Credits
This course provides an overview of industrial biotechnology, pharmaceutical technology, agro-technology and chemical processes. In addition, the course will include laboratory safety and documentation.

BIOT 103
Cell and Molecular Biology for Biotechnology
Three Credits
Basic course in the Biotechnology specialization that prepares the students with the basic knowledge in cell and molecular biology. The course studies from the structure of important organic and inorganic molecules found in living organisms to the types of cells and their metabolic functions. The student will be trained in the laboratory with the necessary skills and techniques to study biology.

BIOT 103L
Cell and Molecular Biology for Biotechnology Lab
One Credit
The student will be trained in the laboratory with the necessary skills and techniques to study cell and molecular biology, applied to biotechnology.

BIOT 210
Regulations and Good Manufacturing Practices
Three Credits
In a general way, this course covers the current regulations that apply to Puerto Rico, including overview of OSHA, PROSHA, and EPA/EQB, with the major focus on FDA rules and regulations. Course emphasis will be on Good Manufacturing Practices (cGMP's), quality awareness, record integrity, documentation, 483's, business impact in dollars and jobs.

BIOT 231
General Manufacturing Biotechnology I
Three Credits
This course covers the basic principles and experiences related to cell culture, sterilization, media preparation and recovery.

BIOT 231L
General Manufacturing Biotechnology I Lab
One Credit
This laboratory is a practical complement of the course General Manufacturing Biotechnology I where experiences in the manipulation of cell cultures are presented, the growth-influencing factors, quality control measures in the manufacturing processes, cleaning protocols, hygiene and sterilization, documentation and practical applications of bioinformatics. Activities will be conducted in a weekly three hours period.

BIOT 240
Validation
Three Credits
The course provides an introduction to the topics of installation qualification, operational qualification, performance qualification, process qualification, cleaning validation, sterilizing filter validation, SPC and continuous process validation, validation testing, preventive maintenance, and principles of metrology. A laboratory validation project is included in the course.

BIOT 250
General Manufacturing Biotechnology II
Three Credits
This course covers the basic principles and experiences related to cell culture, microbes, fermentation, production, recovery, and packaging.

BIOT 250L
Manufacturing Biotechnology Laboratory II
One Credit
The course complements the General Manufacturing Biotechnology II course where experiences in the management of cell cultures will be presented, factors that affect their growth, quality control measures in manufacturing, cleaning protocols, hygiene and sterilization, document management and bioinformatics applications. Activities will be done using 3 hours periods of laboratory work per week.

CHEM 101
Applied Chemistry
Four Credits
The class is designed to provide students with a general knowledge of matter, chemical compounds and molecules, gases and solutions, preparation of solutions and dilutions, solubility, density, colligative properties, acids and bases and in general the main inorganic and organic chemical processes used in industry. This course will complement the student's knowledge by using modern laboratory techniques including measurements of pH and conductivity, UV-visible and fluorescence spectroscopy.

CHEM 101L
Applied Chemistry Lab
One Credit
Introductory laboratory to chemistry where the following topics are covered: matter, pure substances, mixtures, periodic table, chemical separations, chemical reactions, calorimetry, kinetics, physical and chemical properties, states of matte. The laboratory will strengthen the basic volumetric, measurement and use of basic equipment techniques and skills, as long as safety rules.

FOOD 101
Introduction to food technology
Three Credits
This course is an introductory course for all first year science major students, which brings the general scope of food science and technology. The main focus of the course is the application of the basic sciences and technology to the study of the fundamental nature of foods and the principles of its processing. The course covers areas regarding the raw material, added value and processing. Part of the scope also covers the processing of different kinds of foods, such as fruits and vegetables, meats, drinks and candies. The course also studies food safety laws, the federal agencies in charge of these laws, packaging and labeling of foods.

FOOD 201
Microbial Food Safety Hazards and Quality Control
Three Credits
The course is aimed for students interested in the study of diseases from a population based perspective. The course begins with an overview of globalization and epidemiology of foodborne diseases. The course will describe the biotic and abiotic factors that affect disease rates and the distribution of disease prevention. The course will also include up-to-date information and statistical analysis of emerging foodborne disease from around the world.

FOOD 250
Food safety and protection related to public health (HACCP)
Three Credits
This course studies the relationship between food safety and protection related to public health. The course starts with a historical and political background that includes regulatory agencies and historical events or cases that impulse the creation of the HAACP. Provide the student with an introduction to the Hazard Analysis Critical Control Points (HACCP) principles and their importance in the prevention of biological, chemical or physical alteration of food. This is followed by the practical application of the HACCP; design, Implementation, Verification, and Maintenance for Ongoing Risk Management. In addition, the course provides up-to-date information on current topics in food safety regulations, issues and control of potential risks. It covers topics related to emerging foodborne pathogens (i.e., bacteria, viruses, protozoans and helminthes). Other topics covered are: virulence, pathogenesis, toxins production, epidemiology, sources of microorganism contamination, current technology and food safety prevention and control.

FOOD 300
Food Laws and Regulatory Processes
Three Credits
Federal, state and territories laws regulations and case law history affecting food production, processing, packaging, marketing and distribution of food and food products. History of food law, enactment of laws and regulations, legal research, and regulatory agencies.

GESC 107
Introduction to the Computer and its Applications
Three Credits
The student is introduced to the use of the computer. The windows operative system, internet navigation, mostly used applications, such as: Word, Excel and Power Point, data handling and graphic presentations are stressed in this course.

GESC 264
Introduction to Science Research
Three Credits
The study of the basic concepts of scientific research. Emphasis in the application of the components of the scientific method. Also, training in scientific literature search, editing techniques, oral presentations and poster presentations.

PHOP 255
Water Purification and Treatment Systems in Pharmaceutical & Chemical Processes
Three Credits
The course covers the major aspects related to high purity water systems use in the chemical, and pharmaceutical industries. Emphasis will be in equipment set-up and maintenance, multimedia filtration, chlorination, softening, carbon adsorption, filtration, distillation, storage and distribution, steam in place.

PTTE 200
Internship in Technology
Three Credits
This course extends classroom activities to a supervised, on-the-job learning experience directly connected to the student's educational or occupational goal. The student will be under the direct supervision of a college faculty member as well as industrial personnel. Participants must attend orientation and seminar activities to familiarize themselves with internship program requirements and workplace habits. In addition, they must comply with pre-internship consultation with the faculty supervisor and complete 10 hours per week of training for a period of 9 weeks during the semester or summer. The student will receive written evaluations from the industrial and faculty supervisors. This course will be taken by the end of the student's second year of studies.

SCIE 250
Communication and Teams in the workplace
Three Credits
This course will provide the student with the basic skills necessary to work as a member of a team in business or organizational environments.

SCHOOL OF SOCIAL SCIENCES AND COMMUNICATIONS

The School of Social and Human Sciences of Universidad del Turabo offers degree programs which enable students to compete optimally in the workplace. At the undergraduate level, the School offers a Bachelor of Arts degree in social sciences, with majors in criminology, psychology, social work and communications. It also offers a Bachelor's Degree in Humanities, with majors in socio-humanistic studies and graphic arts. In addition, the school offers a Master's Degree in Public Affairs, with specialties in criminal justice, human services, arts administration, and forensic sciences, as well as a Master's Degree in Psychology, with a specialty in counseling psychology.

VISION

To develop productive and effective members of the global community with a professional, social, ethical and humanistic foundation.

MISSION

The School of Social and Human Sciences is characterized by its dual mission.

The school provides high quality academic programs at both the undergraduate and graduate level. The School undertakes this in a setting where excellence in teaching and learning are encouraged in the classroom, in practical internships, and in strong relationships with projects in the community at large. The basic goal is to provide our graduates not only with competence in their chosen field, but also with the diversity of experience needed to understand and appreciate the contributions of other disciplines.

The School is also responsible for the general social and humanistic foundation of all students at the Universidad del Turabo. The General Education curriculum is student-centered, emphasizing the importance of global interdependence and language competence. To this end, the school has established a **Language Center** to develop students' ability to understand and express ideas in an articulate fashion. Moreover, the School has developed an interdisciplinary curriculum geared toward the analysis of human and social problems and the search for solutions through an understanding of human diversity.

General Objectives in all School Curriculum and Programs:

1. Maintain academic excellence by studying, teaching and social research.
2. Promote the knowledge and preservation of Puerto Rican and universal cultural values.
3. Develop communicative competency in Spanish and English.
4. Develop the capacity to analyze problems and find solutions.
5. Develop the understanding that is necessary for collaboration resulting in the sharing of ideas within disciplines, institutions, communities and nations.
6. Promote understanding of the human condition, enabling students to view the world with compassion and to act responsibly.

Graduation Requirements

Undergraduate students of Universidad del Turabo will be eligible to receive academic degree after meeting the requirements and procedures stablished by the institution and the following:

- Completion of the number of credit hours required for the degree with a minimum Grade Point Average of 2.0. Students should obtain a minimum Grade Point Average of 2.30 in major courses and 2.00 in other courses. Students must comply with the retention standards established at the Institution.

SPECIALIZED ACCREDITATIONS

CSWE
Accredited by the Council on Social Work Education

The bachelor degree in Arts in Social Work is accredited by the Council on Social Work Education (CSWE) since 2012.

Accredited by the American Psychological Association

The Doctoral Program in Counseling Psychology is accredited by the American Psychological Association (APA) since September 27, 2016.

FACULTY

Ursula Aragunda-Kohl / Associate Professor
PsyD, Carlos Albizu University

Didimio Barreto Pérez / Associate Professor
LLM Universidad Complutense de Madrid

Jorge Berríos / Assistant Professor
PhD, Escuela de Medicina de Ponce

Sylvia Burgos Marrero / Instructor
M.S.W. Universidad de Puerto Rico

Migdalia Camacho-Hernández / Associate Professor
Ph.D., Universidad de Puerto Rico

Delza Canto / Instructor
MA, Universidad Interamericana de Puerto Rico

Ramón G. Colón-Lopez / Professor
MA, Universidad de Puerto Rico

Esther Colón Santana / Instructor
MBA, Universidad Metropolitana

Carlos M. Cordero / Associate Professor
PhD, University of Minnesota

William T. Casper-Quiñones / Professor
PhD, Universidad Complutense de Madrid

Alice M. Del Toro-Ruiz / Associate Professor
PhD, Centro de Estudios Avanzados de Puerto Rico y del Caribe

Edward H. Fankhanel-Seda / Associate Professor
EdD, Argosy University

Paul Fericelli / Instructor
MA, Pontificia Universidad Católica de Puerto Rico

Ricardo Fernández-Díaz / Associate Professor
JD, Universidad Interamericana de Puerto Rico

Víctor Manuel García / Professor
PhD, Universidad de La Habana

Katia Gil de Lamadrid / Associate Professor
PhD, Centro Caribeño de Estudios Postgraduados

Marco A. Gil de Lamadrid-Gautier / Professor
PhD, Centro de Estudios Avanzados de Puerto Rico y el Caribe

Angel Guzmán / Instructor
BBA, Universidad del Turabo

Ricardo Izurieta-Ortega / Associate Professor
JD, Universidad de Puerto Rico

Francisco Millán / Instructor
PsyD, Universidad del Turabo

María E. Ortiz / Instructor
JD, Universidad de Puerto Rico

María Mercedes Ortiz Rivera / Assistant Professor
Ph. D., Universidad de Puerto Rico

Carmen C. Ortiz-Velázquez / Associate Professor
MS, University of London

Tomasita Pabón Delgado / Associate Professor
JD, MAP, Universidad de Puerto Rico

Holvin Perez Perez / Instructor
MPA, Universidad Interamericana de Puerto Rico

Silma Quiñónez-Roldán / Assistant Professor
PhD, Professional School of Psychological Studies

Pedro Rodríguez / Instructor
MA, Universidad de Puerto Rico

Luis Rosario Albert / Assistant Professor
PhD Universidad de Navarra

Carmen T. Ruiz de Fischler / Associate Professor
PhD, Florida State University

Cristobal Santiago Berrios / Instructor
JD, Universidad Interamericana de Puerto Rico

María Del C. Santos-Gómez / Professor
PhD, Centro Caribeño de Estudios Postgraduados

Ivette Soto / Adjunct Faculty
PhD, Universidad de Málaga

Lydael Vega / Instructor
MA, Universidad Interamericana de Puerto Rico

Joaquín Vázquez / Instructor
MA, Universidad de Puerto Rico

Jessica Velázquez Rodríguez / Assistant Professor
PsyD., Universidad del Turabo

Raúl Velázquez-Zapater / Professor
EdD, Nova University

María Vera / Instructor
MA, Universidad del Sagrado Corazón

Vidamaris Zayas Velázquez / Assistant Professor
PsyD, Universidad Carlos Albizu

PROGRAMS OF STUDY

ASSOCIATE DEGREE IN CINEMATOGRAPHY AND PHOTOGRAPHIC DIRECTION

This major prepares the student with basic knowledge of photography cinematography techniques, as well as the concepts of audiovisual communication and aesthetics. Alumni will be able to conceptualize and shape audiovisual products for traditional media and electronic media.

Total Credits	**54**
General Education Courses	**18**
Major Courses	**33**
Elective Courses	**3**

General Education Courses		**(18 credits)**
SPAN 152	Fundamentals of Reading and Writing II	3
ENGL 152	Fundamentals of Reading and Writing	3
FSSS 105	Freshman Seminar	3
SOSC 111	Individual, Community, Social and Ethical Responsibility II	3
ART 101	Art Appreciation	3
MATH 120	Introductory Algebra	3

Major Courses		**(33 credits.)**
COMM 313	Introduction to Digital Camera	3
COMM 311	Photojournalism	3
PROD 205	Film Direction and Production I	3
COMM 205	Communication Theory	3
COMM 400	TV Principles	3
COMU 320	Camera direction: The aesthetics of the imagen and its visual identity	3
COMU 325	Audiovisual art direction	3
COMU 308	Writing and Style for Audiovisual Communications	3
COMU 203	Audiovisual Communications I	3
COMU 315	Lighting for Audiovisual Media	3
COMU 463	Audiovisual Communications Media Project	3

Electives courses **(3 credits**

ASSOCIATE DEGREE IN ARTS: GENERAL SOCIAL SCIENCES

This major provides a broad vision of society and its processes. Empowers students to understand and work on human and community service programs.

Total Credits	**60**
General Education Courses	**27**
Core Courses	**9**
Major Courses	**24**

General Studies		**(27 credits)**
SPAN 152	Fundamentals of Reading and Writing II	3
SPAN 250	Writing Techniques	3
ENGL 152	Fundamentals of Reading and Writing	3
SPAN 331	Oratory	3
MATH 120	Introductory Algebra	3
SOSC 111	Individual, Community, Social and Ethical Responsibility I	3
SOSC 112	Individual, Community, Social and Ethical Responsibility II	3
HUMA 111	Civilizations and Universal Culture I	3
HUMA 112	Civilizations and Universal Culture II	3

Core Courses		**(9 credits)**
STAT 300	Elements of Statistics I	3
SOSC 320	Social Research Techniques	3
FSSS 105	Freshman Seminar	3

Major Courses		**(24 credits)**
PSYC 123	Survey Course in Psychology	3
ECON 123	Economic Principles and Problems	3
HIST 253	History of Puerto Rico (compendium)	3
POSC 390	International Political Systems	3
GEOG 205	Global Communities and Resources: critical perspective	3
PSYC 225	Social Psychology	3
POSC 253	Political System of Puerto Rico	3
SOCI 203	Sociology Principles (Compendium)	3

ASSOCIATE DEGREE IN FORENSIC INVESTIGATION

This major provides an introduction to forensic research from theoretical and practical perspective. It will prepare students on techniques, methods, procedures, basic knowledge and the necessary skills to perform as a forensic investigator.

Total Credits	**60**
General Education Courses	**15**
Core Courses	**18**
Major Courses	**27**

General Education Courses		**(15 credits)**
FSSS 105	Freshman Seminar	3
ENGL 108	Oral Communication I	3
SPAN 112	Reports Writing in Spanish	3
MATH 120	Introductory Algebra	3
SOSC 112	Individual, Community, Social and Ethical Responsibility II	3

Required Courses		**(18 credits.)**
CRIM 300	Criminal Law	3
CRIM 400	Criminal Procedure	3
CRIM 415	Evidence	3
IFOR 205	Basic Criminal Investigation	3
IFOR 210	Forensic Photography and Planimetry of the Crime Scene	3
IFOR 215	Fundamental Principles of Collection and Processing of Evidence at the Scene of the Crime	3
Major Courses		**(21 credits)**
IFOR 220	Forensic Investigation of Traffic Accident	3
IFOR 225	Interview and Interrogation Techniques	3
IFOR 230	Introduction to Forensic Dactiloscopy	3
IFOR 235	Cyber Crimes Investigation	3
IFOR 240	Scientific Study of the Crime Scene	3
IFOR 245	Fraud Investigation	3
IFOR 250	Introduction to Fire Investigation	3
IFOR 255	Surveillance and Tracking: Technical and Ethical Aspects	3
IFOR 275	Seminar of Forensic Investigation	3

ASSOCIATE DEGREE IN PENAL JUSTICE IN SECURITY PROTECTION

Students are exposed to a dynamic curriculum that provides the knowledge required by a professional career in the field of security, through a solid academic preparation that strengthens human values.

Total Credits	**54**
General Education Courses	**27**
Core Courses	**11**
Major Courses	**16**
Elective Courses	**3**

General Education Courses		**(27 credits)**
SPAN 152	Fundamentals of Reading and Writing	3
SPAN 250	Writing Techniques	3
ENGL 152	Fundamentals of Reading and Writing	3
ENGL 153	Advanced Communicative English	3
PJPS 108	Basic Ethical Values	3
PJPS 112	Civil Rights and Crisis Situations	3
PJPS 116	Intervention with Special Populations	3
PJPS 120	Mediation and Intervention	3
PJPS 124	Human and Community Relations	3

Core Courses		**(11 credits)**
PJPS 132	Information and Communication Technologies for Public Security Officers	2
PJPS 204	First Aid for Criminal Justice Officers	2
PJPS 216	Investigation of Traffic Accidents	2
PJPS 210	Integrated Seminar in Penal Law, Criminal Procedure and Evidence	3
PJPS 214	Crime Scene Investigation	2

Major Courses		**(16 credits)**
PJPS 208	Physical Training and Nutrition for Criminal Justice Officers	2
PJPS 228	Police Patrol I	2
PJPS 229	Police Patrol II	2
PJPS 220	Transit Interventions	2
PJPS 224	Execution of Vehicle Operations	2
PJPS 236	Use and Management of Less Lethal Weapons	2
PJPS 238	Principles of Tactical Operations	2
PJPS 240	Use and Management of Firearms	2

Elective Courses **(3 credits)**

COURSE DESCRIPTIONS

(Courses marked with @ could be offered in both modalities, traditional or on-line.)

COMM 205
Communication Theory
Three Credits

This is an introductory course based on the foundations and concepts of the media and the communication process. Different theory approaches developed by professionals will be discussed and analyzed. These theories and concepts will be related with the social function of the media. Students will familiarize with the most relevant issues in communications and will develop a critical resistance attitude to what the political propaganda and the advertising in media can do.

COMM 311
Photojournalism
Three Credits

Study of the digital still photography camera and introduction to the digital moving image camera. Presentations of the technical aspects of photography. Technical consideration of depth of field, composition and perspective in the construction of the photograph. Introduction of the principles still photography and those of the moving image camera. Study of the main areas of photojournalism. Introduction of the technical aspects of data transference from the digital camera (of the still and moving image camera) to the computer. Presentation of basic skills of photographic retouching and study of the principles of a photographer's ethic in relation to photojournalism.

COMM 313
Introduction to Digital Camera
Three Credits

Introduces the practice and theory of digital photography with the still and moving image photography. The concepts of composition, illumination, depth of field and perspective are studied and applied to still and the moving image photography. Instructs on the ethics, creativity and the social nature of the photographer and the cinematographer. Study of the concept of "plane" as it is used in the thinking of the still and the moving image in film, video and multimedia.

COMM 400
TV Principles
Three Credits
Theoretic and practical study of television as a communications means. Study of the basic concepts of "Television Studies" as are the television text, the nature of televisual language, the televisual sign, television audiences and the history of television as a communications means. Introduction of television production basic concepts in and/or outside the studio. Basic study of the computer in the process of television production. Study of the skills for the creation of televisual scripts and proposals.

COMU 203
Audiovisual Communications I
Three Credits
Introductory course and discussion of the nature of contemporary audiovisual media and the diverse ways of seeing which are fundamental in the differences between communication and signification. Study and analysis of the filmic text, semiotics and aesthetics in modern, mass and postmodern societies. Study of the relation between ways of seeing, style and ethics.

COMU 303
Image Manipulation for Film
Three Credits
Introduction of the concepts of the virtual and multimedia to understand and implement the computer manipulated reality which is usual in video, film and contemporary multimedia. Presents the animation of texts, photographs and figure by way of key frames, plug-ins, pre-sets and programing. Discusses and applies the skills to use FINAL CUT 7 and AFTER EFFECTS to implement the concepts of the virtual and multimedia.

COMU 308
Writing and Style for Audiovisual Communications
Three Credits
Teaching of writing and style of audiovisual communications scripts as mechanisms in the creation of audiovisual executions for film, video and multimedia. Studies the practice and mechanism of storyboarding, and, on the other, the mechanism and practice of audiovisual scripts. Presents the writing formats which are used in musical videos, short films and films as they express themselves as storyboards and audiovisual scripts. Presents the photographic, editing, filmic planes and narrative devices which are used in storyboards and scripts in the audiovisual industries. STORYBOARD QUICK and FINAL DRAFT are the relevant software's of the course.

COMU 315
Lighting for Audiovisual Media
Three Credits
Study of lighting techniques and the instruments used for implementing them in film making. Study of colorization for film, video and multimedia in relation to the idea of communication and to its technical aspects. Study of COLORS by Apple for the colorization and correction of the moving image.

COMU 320
Camera direction: The aesthetics of the imagen and its visual identity
Three Credits
The course will analyze themes, situations, disputes and emerging problems in film, video and multimedia from different perspectives. It will further analyze film theory, the practice of audiovisual technologies, different types of film directors and films that are the basis for a broad understanding of film as a discipline of studies, as an art form and as a communications device. It will encourage the participation of professionals/specialists linked to film, video and multimedia. Realization of audiovisual works, (short films, commercials, documentaries or others).

COMU 325
Audiovisual art direction
Three Credits
Study of art direction from the point of view of photographic direction. Study of the principles of art direction and their relation to cinematographic production design. Study of the collaborative aspects of art direction. Study of the principles of cinematographic art direction from the point of view of film production.

COMU 333
Editing Process
Three Credits
Presents the theory of the moving image editing process through the concepts of montage, lineal editing, flash black and the different kinds of cuts, transitions, plug-ins and sequences which are traditional in cinema, video production and multimedia. Discusses and applies the skills for the use of FINAL CUT 7of the APPLE platform to implement the concepts of the editing process for cinema, video and multimedia.

COMU 463
The Short, Film and Special Effects for the Cinema
Three Credits
Creative audiovisual laboratory where students will spend their time in the realization of a short film, a video or a television add. The principles of visual and sound pre-production, production and post-production will organize

the course. In it special effects guidelines and other digital terminations for audiovisual executions will be offered.

ECON 121-122
Economic Principles and Problems I and II
Six Credits
The course focuses on economic theories and practice. The topics covered include value and price, exchange, distribution, production, employment, national income, international commerce, public expenses, economic cycles, social welfare, and the influence of government on the economy.

ECON 123
Economic Principles and Problems (Compendium)
Three Credits
The course centers on economic theories, and covers topics such as value and price, distribution, protection, and the role of government in the economy.

ENGL 108
Oral Communication I
Three Credits
This course is designed to develop the student's listening comprehension skills in English. Students will be exposed to a variety of social and professional listening activities for law enforcement officers who focus on acquiring the structure and vocabulary of the language. Formal and informal use of the language will be analyzed.

ENGL 109
Oral Communication II
Three Credits
This is a conversational English course in which students practice language that can be put to immediate use. Students will learn the appropriate language for different social and professional situations including formal and informal speech. Students will learn job-specific language for law enforcement officers to interact with the public in English. The curriculum has an audio-oral focus, moving from listening to a fuller command of integrated listening and conversational skills.

GEOG 201
Physical Geography
Three Credits
The course centers on the principles of geography and their application to the environment, climate, soil, vegetation and natural resources.

PJPS 108
Basic Ethical Values
Three Credits
Study of the basic ethical values, and the importance of its application in labor scenario by security, protection and correctional officers. Discussion of applicable legislation and jurisprudence.

PJPS 112
Civil Rights and Crisis Situations
Three Credits
Study of the Constitutional laws of inmates because the commission of crime in Puerto Rico. Analysis of the practices and interventions with inmates in the correctional institutions. Analysis of the standards and their accomplishment in the institutions imposed by the case of Morales Feliciano and it effects in our jurisdiction. Integrates daily discussion in class and state and federal jurisprudence. Students will use the Commonwealth of Puerto Rico and the United States of America Constitutions.

PJPS 116
Intervention with special Populations
Three Credits
Study of the theoretical and practical aspects of the intervention process by security, protection and correctional officers with special population as: juveniles, elderly, domestic violence victims, ethnical groups, drunkards and individuals with mental health disease.

PJPS 120
Mediation and Intervention
Three Credits
Study and critical of the mediation process as an intervention method to manage conflicts. Study of theoretical foundations, stages strategies and effective techniques management general disputes by protection, security and correctional officers.

PJPS 124
Human and Community Relations
Three Credits
Study of Human relations and with community to public security officers. The course is focused on the descriptions of the characteristics in the community oriented police system, their importance and applications in the actual society. Also it pretends the police engagement to work with communities, the preventive strategies development, more proactive than reactive to deal with the criminality.

PJPS 132
Information and Communication Technologies for Public Security Officers
Two Credits
Course for the study of the evolution of human communication and application of technology of exchange information. Lays the foundation in the methods of security and protection of communications between individuals. It describes the processes of verbal and written interaction in a laboratory for the application of technology to the processes that occur in class.

PJPS 204
First Aid for Criminal Justice Officers
Two Credits
Instruct students in the primary care in medical emergencies that are included in the duty of the police as first responders/rescuers. The students will learn to provide their services in scenarios that require specialized knowledge and abilities in: anatomy, physiology, the basic human body, vital signs, shock, fainting, burns, diabetes, child birth, epilepsy, and heart attacks. Through practical exercises, the management of the following emergencies will be taught: chocking, bleeding, and basic cardiopulmonary resuscitation (CPR).

PJPS 208
Physical Training and Nutrition for Criminal Justice Officers
Two Credits
The students will practice different exercise routines that permits then to perform each task, skill or function as agents of law and order. The course will emphasize will be a holistic physical development including nutritional, rest and physical exercises aspects.

PJPS 210
Integrated Seminar in Penal Law, Criminal Procedure and Evidence
Three Credits
Study of the general principles of the Penal Code of Puerto Rico, Special Penal Laws, Criminal Procedures Rules Evidence Rules that controls the juridical order in Puerto Rico. The basic as to the legal rules applicable to the minor offenses, special procedures and exception to the rules previously established. Methodology is used as the main study the analysis of case law under judicial hermeneutical techniques.

PJPS 214
Crime Scene Investigation
Two Credits
The study of the history and purpose of criminal investigations and the terminology of this specialty. Provide adequate instruction in the elements, concepts and fundamental techniques in criminal investigations, such as: profile of the delinquent or criminal, emphasizing criminology, crime scene management, development of confidants and informants, and characteristics of an investigator. Practical exercises that apply the acquired knowledge will be presented.

PJPS 216
Investigation of Traffic Accidents
Two Credits
This course will discuss the duties, responsibilities, and regulations of drivers mandated by the Vehicle and Transit Law of Puerto Rico. Additionally, the student will learn how to apply and enforcement this law. Also, the student will understand the different determining factors and legal aspects of accidents in order to conduct traffic accident investigations.

PJPS 218
Correctional Administration Systems
Two Credits
Study of the Correctional System including ends structures and functions. Also, diverse theories and situation in the correctional settings will be study. The study includes contemporary theories of punishments, corrections and rehabilitation and the problems and situations that affect the correctional official in the field of the Correctional system.

PJPS 220
Transit Interventions
Two Credits
This course will discuss the Vehicle and Transit Law of Puerto Rico and its implementation and application as it relates to the duties and responsibilities of Public Order Agents/Officers while driving. The student will also learn internal protocol and operating procedures that should be followed to perform safe and effective interventions.

PJPS 222
Constitutional Law and Corrections
Two Credits
The course is based in the study of constitutional rights of the inmates because the commission of a felony crime in Puerto Rico. It emphasizes in the analysis of practices and interventions with inmates in the correctional institutions. Equally, the regulations and norms after Morales Feliciano case and their effects will be study. Integrates daily discussion in class, the jurisprudence at local and federal level and students will use the United States Constitution and the Constitution of the Commonwealth of Puerto Rico.

PJPS 224
Execution of Vehicle Operations
Two Credits
Study and practice of vehicle operation techniques in different environments and routes that protection and security officers should apply in various activities as: patrolling, tracing and intervention. The course will emphasize in motor skills development by practical drills.

PJPS 226
Management and Supervision of Inmates
Two Credits
Introductory course of inmate's supervision techniques for custody agents and correctional employees. Emphasis will be in the specific development of the communication methods that are necessary to work in the correctional institutions. The primary goals of the course are: the development of the ability to work potential dangerous environment, the

implementation and follow up of direct orders, recognition of the offenders manipulation, observation methods, knowledge and corporal language implementation and how to solve daily work problem a population culturally different.

PJPS 228
Police Patrol I
Two Credits
Study of daily transit police patrol, the difficulty to save lives in our community, and watch and secure property. Analysis of difficulties when the officer on patrol tries to maintain law and order that regulate drivers and pedestrians different types of patrol will be further examined to establish a teaching and learning process in order to develop an effective, short term and long term, operational plan that minimizes crime in society.

PJPS 229
Police Patrol II
Two Credits
Continuation study of daily transit police patrol, the difficulty to save lives in our community, and watch and secure property. Analysis of difficulties when the officer on patrol tries to maintain law and order that regulate drivers and pedestrians different types of patrol will be further examined to establish a teaching and learning process in order to develop an effective, short term and long term, operational plan that minimizes crime in society. Includes practical exercises to reinforce the patrolling skills of the public security officers.

PJPS 232
Growth and Development of Inmates in Corrections
Two Credits
In the course will be discussed and analyzed the treatment of the inmates in the correctional system the rehabilitation strategies, the prevention models and service programs and the development related to philosophies and correctional practices. Students will focus critically in theoretical affairs, and policies related to treatment and rehabilitation programs for adults and juveniles.

PJPS 234
Probation, Parole and Treatment in the Community
Two Credits
Integral study of the general principles of Probation Parole and the Treatment Community of the convicted persons in Puerto Rico. Examination of the requisites and effects of probation. Analysis of the structure and regulations of the Parole Board. Explores the alternatives of convicted person's treatment in community and the importance and effective social reinsertion to archive their rehabilitation.

PJPS 236
Use and Management of less lethal weapons
Two Credits
Study and practice of techniques and tactics in the use and manage of less lethal weapons as: baton, Taser, chemical agents and rattan. The course emphasize the use and management of less lethal weapons strength as alternative for leveling the use of force by the protection, correctional and security officers in the intervention process with citizens ensuring their safety and protection.

PJPS 238
Principles of Tactical Operations
Two Credits
Study and practice techniques of self-defense, and the use and management of the baton established by General Oder 98-6. Students are taught the techniques and mechanics of arrest utilizing restraining devises (shackles, and metal and plastic handcuffs). Students are trained to recognize the procedures to pursue a vehicle intervention (day and night), occupants of the vehicle, and the transportation of the occupants. Students are trained in the tactical formations in order to manage situations of civil disturbance and crowd control. The student will know and apply the implementation of aquatic rescues utilizing the training tank (swimming pool for training).

PJPS 240
Use and Management of Firearms
Two Credits
This course will capacitate the student to carry and manage weapon in an adequate and legal manner. Emphasis will be given to the state and federal legal regulations in the use of weapons.

POSC 201-202
Introduction to Political Science I-II
Six Credits
The course explores the history of political thought, including the formation of the modern state, contemporary political ideology, theory of political institutions, international relations, and the means created in the modern state for the participation of citizens.

POSC 203
Principles of Political Science (Compendium)
Three Credits
The course analyzes the modern state, its structure, and citizen participation. Political decision-making in contemporary societies is discussed.

POSC 253
Political System of Puerto Rico
Three Credits
The course centers on political institutions in Puerto Rico from 1870 to the present. It traces legal and political

evolution from the "Carta Autonómica" to the legislation establishing the elected governorship and the Commonwealth.

POSC 358
Administrative Law
Three Credits
The course traces the development of administrative law, as well as administrative action, procedures and agencies, court reviews, interpretation of legislation, regulations and retroactivity. Areas discussed include administrative discretion in policy-making, jurisdiction and investigative powers, as well as notification and hearings, the decision-making process and other related topics.

PROD 205
Film Direction and Production I
Three Credits
Theoretic and practical study of the creation of sound identities for cinema and multimedia. Discussion of the techniques for the use of pre-recorded sound, to record location sound for the cinema and to generate music and sound effects in the studio. PRO TOOLS is central for the course, as are booms and on location recorders. Presentation of the basic concepts film writing as they are related to sound identities in film, video and multimedia. Presentation of the relation between sound identities and all the other aspects of a visual execution in film, video and multimedia.

PSYC 121-122
Psychology I and II
Six Credits
The course is a general introduction to basic theories of human behavior and their relation to social progress and individual growth.

PSYC 123
Survey Course in Psychology
Three Credits
Condensed version of Psychology 121-122. Introduction to basic theories of human behavior and their relation to social progress and individual growth.

PSYC 205
Personal Growth and Development
Three Credits
The course emphasizes the dynamics of human behavior and techniques for effective interpersonal relations. Human activity and mechanisms for personal and social adjustment are analyzed in order to achieve understanding of self and of others.

PSYC 225
Social Psychology
Three Credits
The course centers on the relationship between the individual and society. Analyses include attitudes, perception of group behavior, prejudices and conformity.

PSYC 305
Human Relations and Public Service
Three Credits
The course examines the complexity and the dynamics of human relationships. It includes a study of the variables that influence individual behavior in group situations as well as motivation, leadership, communication, resistance to change and the importance of good human relations in public service.

PUAD 201
Introduction to Public Administration
Three Credits
The course introduces the theory of public administration and the field of organizational science. Problem identification and classification, as well as the use of models for analyzing different structures are also presented.

PUAD 203
Public Personnel Administration
Three Credits
The course presents theoretical, legal and practical aspects of personnel administration. The Personnel Law and regulations of the Commonwealth of Puerto Rico are studied, so as to gauge their impact on public administration practices.

PUAD 215
Communication and Writing in Public Service
Three Credits
The course centers on communication levels in public administrations, departments and agencies. The different types of documents that public officials must produce are studied. Writing exercises are emphasized.

PUAD 315
Organizational Psychology
Three Credits
Human behavior in the organization. Main theories of organization and organizational development. Research on structure and organizational climate.

PUAD 325
Municipal Government Administration
Three Credits
The course presents the structure and operation of Puerto Rico's municipal government. Problems of municipal administration, as well as laws governing the municipalities and their agencies are also studied.

PUAD 360
Labor Relations and Government Collective Bargaining
Three Credits
The course centers on labor relations in Puerto Rico, as well as legislation and case law in local and federal jurisdictions.

SOCI 203
Principles of Sociology (Compendium)
Three Credits
The course is a compendium of SOCI 201-202 directed to criminology students. Topics discussed include social organization, cultural phenomena, and socialization. Also studied are basic institutions, social deviation, stratification, social mobility, social and cultural change.

SOSC 320
Social Research Techniques
Three Credits
The course presents research methods and techniques for the social sciences.

SCHOOL OF TECHNICAL STUDIES

VISION

The vision of the School of Technical Studies (STS) is to make the Ana G. Méndez University System (SUAGM) the first choice and the model for technology education and continuing education programs.

The STS will become an important component of support to strengthen the undergraduate enrollment at SUAGM and its institutions.

MISSION

The mission of the School of Technical Studies is to offer high quality education in technology. The students will be able to pursue a university technical certificate or an associate degree and will receive the proper training to satisfy the employment market. The STS programs are committed to providing the students with life-long and technical skills needed to find a job for their professional development, or to continue studies at the university level.

OBJECTIVES

In order to accomplish our mission, the School must comply with the following objectives:

1. Provide technical education that will respond to the present and future demands of the employment markets.
2. Train and develop in the students the skills and knowledge related to their profession, in accordance with the demands of the human resources of the community we serve.
3. Provide support services that will facilitate student retention in the program and that will contribute to academic and professional success.
4. Develop in the students the necessary skills and attitudes needed in the use of learning resources, including recent developments in the area of educational technology.
5. Provide students with real life laboratory experiences, so that they will familiarize themselves with the nature of their future job.
6. Develop students' competence in small business management, so that they are prepared to create employment for themselves as well as for other persons.
7. Develop proposals and continuing education courses that can be offered in different modalities at the workplace or at home.
8. Incorporate emergent technologies in technical studies programs and continuing education, according to the available resources.
9. Offer technical programs and continuing education at the off-campus centers that will respond to the necessities of the geographic zone and communities they serve.

Important note:
The institution provides practicum sites for students of this program. Availability in each academic period will be subject to the space provided by practicum centers. Practicum center may be located in different geographic areas through PR.

PROGRAMS OF STUDY

COMPUTER SYSTEMS CERTIFICATE

The courses required for this certificate offer the students the essential knowledge to work with software programs in a business setting. The students master the technical skills of the computer keyboard as a basis for working rapidly and effectively with the application programs. The students become familiar with the following software programs: Word, Excel, Power Point, and Access, among others.

OBJECTIVES

At the conclusion of the certificate program, the students will be able to:

1. Demonstrate knowledge of the concepts, applications and uses of computers as important tools for information processing in the office setting.
2. Produce different styles of business documents with speed and accuracy.
3. Use correctly various computer software packages such as Word, Excel and Power Point.
4. Apply proofreading skills to the editing of documents.

Total Credits		**39/690 hours**
SPAN 152I	Fundamentals of Reading and Writing (Additional 30 hours of lab)	3/45
MATH 120	Introductory Algebra (Additional 45 hours of lab)	3/45
COAT 102	Keyboard and Computer Basics	3/45
ENGL 152	Fundamentals of Reading and Writing (Additional 30 hours of lab)	3/45
FSET 100	Freshman Seminar	3/45

COAT 103	Problem Solving and Logical Concepts	3/45
COAT 104	Introduction to Telecommunications and Computer Networks	3/45
COAT 105	Object Oriented Programming	3/45
COAT 106	Electronic Commerce Applications Development	3/45
COAT 108	Wireless Local Area Network	3/45
COAT 109	Special Topics in Information Systems	3/45
COAT 110	Computer Network Design	3/45
COAT 204	System Analysis and Design	3/45

MEDICAL BILLING WITH ELECTRONIC MEDICAL RECORDS CERTIFICATE

This certificate will prepare support personnel to collaborate with medical personnel according to the laws in Puerto Rico.

OBJECTIVES

At the conclusion of the certificate program, the students will be able to:

1. Demonstrate knowledge in the concepts, applications and uses of the computers as an important tool in information processing.
2. Apply the basic elements of medical terminology in the elaboration of words using roots, prefixes, suffixes, and compounds.
3. Demonstrate the skills necessary in completing HCFA forms and mastering the insurance claims form cycle.

Total Credits		**39/1,005 hours**
SPAN 152I	Fundamentals of Reading and Writing (Additional 30 hours of lab)	3/45
MATH 120E	Introductory Algebra (Additional 45 hours of lab)	3/45
COAT 107	Keyboard and Computer Basics	3/45
ENGL 152E	Fundamentals of Reading and Writing (Additional 30 hours of lab)	3/45
FSET 100	Freshman Seminar	3/45
OFAT 102	Medical Terminology	3/45
OFAT 108	Billing	3/45
OFAT 122	Coding	3/45
OFAT 123	Billing Audit	3/45
OFAT 124	Electronic Billing	3/45
OFAT 125	Practice	3/135
OFAT 126	Legal and Administrative Procedures	3/45
OFAT 127	Electronic Medical Record	3/45

PARALEGAL TECHNICIAN CERTIFICATE

The Paralegal Technician Certificate Program trains the students to provide support services to lawyers, judges, investigators and other legal professionals.

OBJECTIVES

At the conclusion of the certificate program, the student will:

1. Demonstrate knowledge and skills in legal research and writing.
2. Prepare their own documents using research skills and necessary legal terminology in Spanish, English and Latin.
3. Utilize computer software in legal research.
4. Be familiar with the original client interview, the drafting of the complaint, the summons, and all the other stages of civil procedures in the Puerto Rican judicial system.

Total Credits		**54/910**
SPAN 152I	Fundamentals of Reading and Writing	3/45
FSET 100	Freshman Seminar	3/45
PALT 100	Legal Computer	3/45
PALT 110	Mortgage Law	3/45
PALT 111	Civil Procedure	3/45
PALT 112	Canons of Ethics and Professional Responsibility	3/45
PALT 115	Legal Research and Writing	3/45
PALT 116	Private Law I	3/45
PALT 117	Criminal Law	3/45
PALT 118	Criminal Procedures Law	3/45
PALT 119	Special Criminal Laws	3/45
PALT 120	Public Law	3/45
PALT 121	Private Law II	3/45
PALT 122	Real Rights	3/45
PALT 123	Evidence	3/45
PALT 135	Preparation and Testimony in Court Cases	3/45
PALT 175	Practice of Paralegal Skills	3/45
	(Additional practice hours)	100
PALT 185	Basic Civil Rights	3/45

ASSISTANT TEACHER IN EARLY CHILDHOOD EDUCATION CERTIFICATE

This certificate provides students with the activities, information, and the necessary strategies to assist the pre-school teacher in the classroom.

OBJECTIVES

At the end of the certificate program, the students will be able to:

1. Identify the characteristics of early childhood, patterns of development and growth in physical, social, intellectual and emotional aspects.
2. Discuss current legislation related to the operation of preschool facilities.
3. Use play and game activities as teaching strategies in preschool education.

Total Credits		**60/1,155 hours**
SPAN 152I	Fundamentals of Reading and Writing (Additional 30 hours of lab)	3/45
MATH 120E	Basic Mathematics (Additional 45 hours of lab)	3/45
ENGL 152E	Fundamentals of Reading and Writing (Additional 30 hours of lab)	3/45

FSET 100	Freshman Seminar	3/45
PRET 102	Health, Hygiene and Nutrition	3/45
PRET 107	Teaching Reading and Writing	3/45
PRET 114	Computers in Education	3/45
PRET 119	Theory, Practices and Game-like Education Strategies	3/45
PRET 122	Development of Language and Speech Correction	3/45
PRET 123	Children's Literature	3/45
PRET 135	Introduction to Education	3/45
PRET 136	Curriculum and Teaching Methods	3/45
PRET 139	Education for Exceptional Children	3/45
PRET 144	Administration of Educational Programs for Infants, Toddlers and Preschool Children	3/45
PRET 143	Practical Experiences at Preschool Level for Assistant of Teachers	3/45
PRET 166	Child Care in Early Education	3/45
PRET 171	Growth and Human Development	3/45
PRET 172	Educational Psychology	3/45
PRET 176	Classroom Management	3/45
PRET 202	Teaching Materials and Learning Devices	3/45

PRACTICAL NURSE CERTIFICATE

This professional can perform simple tasks in medical procedures such as: observations of the condition of the patient, physical, mental, social and spiritual well-being development plans of care for the patient, documenting its intervention in the clinical record and basic tasks related to hygiene, comfort, feeding, elimination, ambulation and patient rest.

Total Credits **55/1,335 hours**

COAT 107	Keyboarding and Basic Computer Applications	3/45
ENGL 152I	Fundamentals of Reading and Writing (Additional 30 hours of lab)	3/45
MATH 120E	Introductory Algebra (Additional 45 hours of lab)	3/45
SPAN 152I	Fundamentals of Reading and Writing (Additional 30 hours of lab)	3/45
FSET 100	Freshmen Seminar	3/45
NURT 100	Microbiology	3/45
NURT 100L	Microbiology Lab	1/30
NURT 102	Principles of Nursing	5/45
NURT 102L	Clinical Lab on Principles of Nursing	0/120
NURT 103	Nutrition Fundamentals	2/30
NURT 104	Primary Nursing Care of Mothers and Newborns	5/45
NURT 104L	Clinical Laboratory of Primary Nursing Care of Mothers and Newborns	0/90
NURT 105	Primary Nursing Care for Children and Adolescents	5/45
NURT 105L	Clinical Laboratory of Primary Nursing Primary Care for Children and Adolescents	0/120
NURT 106	Nursing Primary Care of the Adult and the Elderly	5/45
NURT 106L	Clinical Laboratory of Primary Nursing Care of Adults and the Elderly	0/90
NURT 107	Primary Nursing Care of the Psychiatric Patient	5/45
NURT 107L	Clinical Laboratory in Primary Nursing Care of the Psychiatric Patient	0/120
NURT 108	Practical Nurse in the Community	3/45
NURT 109	Practical Nurse Review	3/45
PHAT 100	Anatomy and Physiology	3/45

THERAPEUTIC MASSAGE CERTIFICATE

This program prepares the student to offer its clients/patients massage therapies that provide an emotional and mental fitness benefits. Also prepares the graduate for the exam offered by the Board of Examiners for Massage Therapists.

Total Credits **52/1,000 hours**

FSET 100	Freshman Seminar	3/45
PHAT 100	Anatomy and Physiology	3/45
CTMT 100	Massage Introduction	2/30
CTMT 102	Therapeutic Massage	3/30
CTMT 102L	Therapeutic Massage Laboratory	0/30
CTMT 103	SPA Techniques	3/30
CTMT 103L	SPA Techniques Lab	0/30
CTMT 104	Reflexology	2/30
CTMT 105	Clinical Pathology	3/45
CTMT 106	Psychology of Massage	2/30
CTMT 107	Lymph Drainage	3/30
CTMT 107L	Lymph Drainage Lab	0/30
CTMT 108	Volcanic Stone Massage	3/30
CTMT 108L	Volcanic Stone Massage Lab	0/30
CTMT 109	Craniosacral Therapy	2/30
CTMT 109L	Craniosacral Therapy Lab	0/30
CTMT 110	Sports Massage	3/30
CTMT 110L	Sports Massage Lab	0/30
CTMT 111	Oriental Clinic	3/45
CTMT 112	Chair Massage	3/30
CTMT 112L	Chair Massage Lab	0/30
CTMT 113	Practice Kinesiology	3/45
CTMT 114	Shiatsu	2/30
CTMT 115	Massage to Special Populations	3/45
CTMT 116	Revalidation Review Certification for Massage Therapist	2/30
CTMT 117	Supervised Practice	3/160

PRIVATE INVESTIGATOR CERTIFICATE

This program prepares the student with the basic and general principles related to private investigation, including the ethical and legal principles of the profession.

Total Credits		**45/1,005**
FSET 100	Freshman Seminar	3/45
COAT 102	Keyboard and Computer Basics	3/45
PALT 117	Criminal Law	3/45
PALT 123	Evidence	3/45
PALT 135	Case Preparation and Testimony in Court	3/45
PDFT 101	Technical Report Writing Methods	3/45
PDFT 102	Private Detective Law	3/75
PDFT 103	Constitutional Law	3/90
PDFT 104	Criminal Investigation	3/90
PDFT 105	Fingerprints and Photography	3/90
PDFT 106	Rules of Criminal Procedures	3/45
PDFT 107	Arrest Techniques and Mechanisms	3/90
PDFT 108	Surveillance and Monitoring	3/90
PDFT 109	Integration Seminar of Investigative Techniques	3/120

ASSOCIATE DEGREE IN RESPIRATORY THERAPY

The Associate Degree in Respiratory Therapy prepares students to be skilled in assisting in the diagnosis, treatment, management, control, rehabilitation and preventive care of patients with cardiopulmonary problems.

Total Credits		**64**
MATH 120	Introductory Algebra	3
SPAN 152	Fundamentals of Reading and Writing	3
ENGL 152	Fundamentals of Reading and Writing	3
FSET 100	Freshman Seminar	3
BIOL 103	Survey of Biological Sciences	3
BIOL 300	Microbiology	3
BIOL 300L	Microbiology Lab	1
PHSC 101	Introduction to Physics	3
CHEM 101	Applied Chemistry	3
CHEM 101L	Applied Chemistry Lab	1
RESP 100	Introduction to Respiratory Care	3
RESP 101	Cardiopulmonary Anatomy and Physiology	3
RESP 102	Principles of Respiratory Therapy	3
RESP 202	Cardiopulmonary Pathophysiology	3
RESP 203	Respiratory Therapy Pharmacology	3
RESP 204	Respiratory Management	3
RESP 205	Diagnostic Evaluation in Respiratory Care	3
RESP 206	Sample of Blood Gases and Function	2
RESP 207	Mechanical Ventilation	3
RESP 208	Neonatal and Pediatric Patient Management	3
RESP 209	Practicum	6
RESP 210	Knowledge Integration in Respiratory Therapy	3

ASSOCIATE DEGREE IN PHARMACY TECHNICIAN

This program provides training in the area of registration, handling, and control of medicines. The curriculum includes practical training hours in pharmacies that help the student to be eligible to take the examination of the Pharmacy Examining Board of Puerto Rico.

Total Credits	**60**
General Education Courses	**12**
Major Courses	**48**

General Education Courses		**(12 credits)**
FSET 100	Freshman Seminar	3
BIOL 103	Survey of Biological Sciences	3
SPAN 152	Fundamentals of Reading and Writing	3
ENGL 152	Fundamentals of Reading and Writing	3
Major Courses		**(48 credits)**
PATH 103	Pharmaceutical Calculations I	3
PATH 104	Pharmaceutical Calculations II	3
PATH 117	Pharmacy Introduction	3
PATH 122	Pharmacognosy	3
PATH 206	Over the Counter Medicine	3
PATH 220	Dosage	3
PATH 224	Pharmacy Practice Laboratory	3
PATH 225	Internship I*	6
PATH 226	Internship II*	6
PATH 227	Pharmaceutical Chemistry	3
PATH 228	Communication and Customer Service Pharmacist	3
PATH 229	Pharmacotherapy I	3
PATH 230	Pharmacotherapy II	3
PATH 231	Pharmaceutical Legislation	3

COURSE DESCRIPTIONS

COAT 102
Keyboard and Computer Basics
Three Credits

Keyboarding skills, basic principles of data processing, computer hardware components and application programs Words and Power Point. Development of skills in computer use and search and information processing. Includes general concepts of computer systems and information systems organization. Recovery, evaluation summary and presentation of information.

COAT 103
Problem Solving and Logical Concepts
Three Credits

This course provides an introduction to programming and problem solving. The course focuses on the basic tools and logic concepts required to develop computer applications. Students learn how to write a structured, modular program in a current programming language. The course also examined data representation, algorithmic development, and flowcharts using different structures.

COAT 104
Introduction to Telecommunications and Computer Networks
Three Credits
Course in telecommunications and computer networks, designed for individuals in the field of computerized information systems. The historical development and the concepts, terminology and modern products related to computer networks are described. The criterion for planning, acquisition and installation of computer networks is emphasized. It also includes the study of protocols, software, topologies, and products available. Strategies of centralized and distributed processing are compared. Requires laboratory.

COAT 105
Object Oriented Programming
Three Credits
Study of the fundamental concepts and principles of the object oriented programming language. The course emphasizes an individualized style of modular programming, using object programming. It also promotes the use of extensions coding, modules and applications for the development competitive skills for today's employment market. Requires laboratory.

COAT 106
Electronic Commerce Applications Development
Three Credits
This course provides an understanding of the Internet technologies and methodologies for the plan and development of e-commerce or e-business. The course surveys the various revenue models that have been introduced in the last few years and analyze their economic and managerial foundations. In addition to acquiring basic skills for navigating the Internet, the course provides some practical skills for building electronic commerce applications over the Internet using extensible hypertext markup language. It also covers legal, social, and security issues.

COAT 107
Keyboarding and Basic Skills in the Computer
Three Credits
The course content includes an introduction to technology in personal computers, applications and ethics in the use of computers. Students get direct experience with operating systems of computers and solve problems through practice with immediate applications of Word, Excel and Power Point. This course requires additional 45 hours in an open laboratory.

COAT 108
Wireless Local Area Network
Three Credits
This course describes the technologies involved in all aspects of a local area network and how the personal devices can interact and communicate with each other. Using a practical approach, the students will learn how a wireless device communicates with a wireless network using protocols and wireless LAN access pint. They will learn how to design, install and troubleshoot a wireless LAN network on a safe-based environment applying device security management.

COAT 109
Special Topics in Information Systems
Three Credits
In this course the students will gain a comprehensive, step by step to learn the basics of assembly, repair and troubleshooting of hardware and software of modern computers. This course addresses the fundamental aims of most recent exam of Comp TIA A+ through class lectures/laboratory exercises that offer a live experience.

COAT 110
Computer Network Design
Three Credits
Specialized course oriented to local area network design. In this course the student will be able to learn the necessary methodologies for the design of computer-based networks using a wired, wireless and optical media. They will learn to use application software in a simulation environment to prevent errors and time loss before the computer network installation. This environment will provide the students a knowledge base for diagnosing and anticipate problems that increase the costs and production loss in the business.

COAT 204
System Analysis and Design
Three Credits
Study of the systems development cycle, with emphasis on the present system documentation, using the classic tools and techniques as well as the structured ones. It includes the use of these resources for describing the processes, the data flow, data structures, forms design for data gathering and reports. It also discusses data gathering activities and information, progress reports, and the transition from analysis to design.

CTMT 100
Massage Introduction
Two Credits
This is an introductory course that gives students knowledge about the history and origin of massage. Study aspects: professional, ethical, legal, hygiene, cleanliness and safety in the massage room, type of customers, technical consultation, preparation of the environment near the equipment and products used for their general effects and contraindications.

CTMT 102
THERAPEUTIC MASSAGE
Three Credits
This course provides students a technical base that allows you to work the soft tissue dysfunctions in specific muscles, better palpation of muscles and muscle fibers in various directions and regions of the musculature.

CTMT 102L
Therapeutic Massage Laboratory
No Credit
This laboratory will allow the students to practice the skills on soft tissue, massage application, muscular and fiber palpation.

CTMT 103
Spa Techniques
Three Credits
In this course, students will learn and apply the techniques used in the SPA and how these used to treat diseases allowing restore health systems: circulatory, nervous and body.

CTMT 103L
Spa Techniques Laboratory
No Credit
This laboratory will allow the student to apply the techniques used in the SPA's.

CTMT 104
Reflexology
Two Credits
This course prepares students in therapy that works with the stimulation of points on the feet, hands, nose or ears by pressure exerted to achieve an energetic connection with glands, organs, systems and body parts.

CTMT 105
Clinical Pathology
Three Credits
Clinical pathology is the story of diseases or conditions of the human body and how to find the outcome of every condition through laboratory analysis, diagnosis and monitoring of biochemical process in the body. Clinical pathologists are usually in charge of laboratories (including blood bank, clinical chemistry, hematology, immunology and serology and microbiology).

CTMT 106
Psychology of Massage
Two Credits
This course prepares the student to apply psychological methodology massage using psychological methods and thoughts that transform the body's energy to positive energy healing offered through the vital energy and the application of massage.

CTMT 107
Lymph Drainage
Three Credits
This course provides students with basic knowledge of anatomy and basic theory of the deeper issues and lymphatic system theories support nodes drain fields.

CTMT 107L
Lymph Drainage Laboratory
No Credit
This laboratory will provide the student the opportunity to apply the basic knowledge of anatomy and drainage of the lymphatic system.

CTMT 108
Volcanic Stone Massage
Three Credits
This course prepares students in the form of massage that combines different stones, all healing purposes and to treat certain conditions.

CTMT 108L
Volcanic Stone Massage Laboratory
No Credit
This laboratory will prepare the students in the techniques that are used to provide the relaxing massage combined with the use of different stones.

CTMT 109
Craniosacral Therapy
Two Credits
In this course students will learn to feel and interpret wave's craniosacral rhythm in order and release restrictions in the system.

CTMT 109L
Craneosacral Therapy Laboratory
No Credit
This laboratory will allow the student perceive and make an interpretation of the Craneosacral wave rhythm.

CTMT 110
Sports Massage
Three Credits
This course provides students with the skills to offer sports therapy both training and competition as a means to help athletes achieve optimal care and at the same time.

CTMT 110L
Sports Massage Laboratory
No Credit
This laboratory converse will provide the student with skills to give sport's therapy at the training and competition level.

CTMT 111
Oriental Clinic
Three Credits
This course prepares students in a variety of massages and therapies based on ancient Chinese Medicine, Medicine Former Japanese, Thai therapies, Korean therapies, and Hinder Ayurveda Medicine, which aims to balance the vital energy (chi) through the operation correct the meridians (energy channels) to prevent disease due to energy blockages.

CTMT 112
Chair Massage
Three Credits
This course consists of teaching the skills and techniques using a professional chair massage and a common chair. To experiences a session effectively with different kinds of technical chair.

CTMT 112L
Chair Massage Laboratory
No Credit
This laboratory consists in teaching of the skills and techniques of massage using the professional chair.

CTMT 113
Practice Kinesiology
Three Credits
This course is the study of natural therapy based on Traditional Chinese Medicine in which they perform a series of tests to determine the diagnosis muscular, physical, emotional or nutritional patient.

CTMT 114
SHIATSU
Two Credits
This course will allow the students to learn the skills of the acupressure massage method to combat the imbalance of the body and spirits and follows the same principles of energy meridians and acupressure.

CTMT 115
Massage to Special Populations
Three Credits
In this course students will develop methods, techniques and clinical massage modalities that are joined to treat all kinds of conditions and disease to people of any age, gender and constitution.

CTMT 116
Revalidation Review Certification for Massage Therapist
Two Credits
In this course the students will review all concepts taught and required to take the test and get certified Revalidation Massage Therapist in Puerto Rico.

CTMT 117
SUPERVISED PRACTICE
Three Credits
Student practical experience properly supervised by a licensed professional and expert in the field of therapeutic massage.

FSET 100
Freshman Seminar
Three Credits
This course aims to strengthen the knowledge and basic skills at the personal, intellectual and technological necessary for effective performance in activities that lead to academic performance and adjustment to college life. Students will participate in mentoring activities aimed at the acquisition of skills and knowledge that will allow its development in the academic area. The importance of comprehensive development of man and its relationship to academic success. The student is guided through a series of activities on campus to expose the services offered by our institution and the School of Professional Technicians. It is intended that students develop greater security and confidence to manage and resolve academic and personal situations.

NURT 100
Introduction to Microbiology
Three Credits
Introduction to the world of microorganisms including the study of the basic characteristics of fungi, bacteria and viruses. Emphasis on those organisms those are pathogenic in humans.

NURT 100L
Laboratory of Microbiology
One Credit
Knowledge of the world of microorganisms including the study of the characteristics of fungi bacteria and viruses. Emphasis on those microorganisms that are pathogenic in humans.

NURT 102
Fundamentals of Nursing
Five Credits
This theoretical and clinical course provides an introduction to legal concepts, historical and sociopolitical nurse teacher in the United States, Puerto Rico and other Hispanic communities. Emphasis is given to the development of basic nursing skills which are necessary for the promotion of health and stability of individuals, families and communities. The student is directed to assess the individual's motivation by finding health care and how their problems interfere with daily activities. Clinical practice provides opportunities for the development of the skills used in hospitals and communities to carry out the nursing role. It puts emphasis

on the client as a holistic entity and use critical thinking when it intervenes in health and disease with a variety of individuals from cultural backgrounds / different social and age groups.

NURT 102L
Clinical Laboratory of Fundamentals of Nursing
Cero Credits
This laboratory is designed to develop students' knowledge of basic nursing skills that enable it to carry out laboratory activities and future clinical experiences.

NURT 103
Fundamentals of Nutrition
Two Credits
Discussion of nutrition with emphasis on the role of carbohydrates, fiber, proteins, fats, vitamins and minerals in the human body. It assesses the relationship between nutrients and health. We reflect critically about the proper diet that results in a better quality of life as proposed of different food pyramids. The nutritional content of unprocessed versus processed foods and nutritional data on legislation are included in the course theme. The same is developed form lecture, research and teamwork.

NURT 104
Primary Care Nursing Mother and Newborn
Five Credits
This course consists of the application of the skills that students must master the nursing practice using the nursing process to the integration of the mother and her family during the stages of pregnancy, childbirth and postpartum. It emphasizes the role nurses preventive, curative and rehabilitative, filling health needs for a dynamic and changing community. Includes nursing skills necessary intervention in the newborn in the delivery room and nursery care (nursery). In addition, those skills are applicable in selected patients with gynecological conditions, emphasizing self-care. Clinical placements will be made in care institutions offering primary, secondary, tertiary, and others that offer community service to this group of patients.

NURT 104L
Clinical Laboratory of Primary Care Nursing Mother and Newborn
Cero Credit
This laboratory is the application of the skills you must master the practical nursing student, using the nursing process to the interaction of the mother and her family during the stages of pregnancy, childbirth and postpartum. Includes skills necessary nursing intervention with the newborn in the delivery room and nursery care.

NURT 105
Primary Care Nursing a Child and Adolescent
Five Credits
In this course, students will practice skills learned in the care of children and adolescents and executed according to the stages of growth and development of children, using the nursing process for intervention with children, adolescents, the family and community. It emphasizes the role nurses' preventive, curative and rehabilitative services. They also integrate the principles of learning and effective communication in the intervention performed. The student will apply the process of communication and interpersonal relationships to intervene effectively with the infant, child, adolescent and family, in coordination with the health team. The course includes three hours of theory and clinical practice six hours a week in the hospital area.

NURT 105L
Clinical Laboratory Primary Care Nursing a Child and Adolescent
Cero Credit
This lab will allow the student to put into practice the skills learned in the care of children and adolescents. Execute these skills according to the stages of growth and development of children and adolescents using the nursing process to intervention with these.

NURT 106
Adult Primary Care Nursing and Old
Five Credits
This course is based on the principles inherent in caring for individuals, families and communities at different stages of growth and development, emphasizing basic needs interfered in the adult and old. We discuss the physiological and pathological changes that occur in the various systems holistically. This course consists of the application of the skills the student to master, using the nursing process for integration with the adult and old, family and community. During all psychomotor skills is emphasized nursing intervention preventive, curative and rehabilitative to fill the health needs of a dynamic and changing community. Emphasis is on the scientific principles of each procedure and the development of skills to perform the techniques correctly.

NURT 106L
Clinical Laboratory of Adult Primary Care Nursing and Old
Cero Credit
In this lab the student will apply the principles of care to individuals, families and communities at different stages of growth and development, emphasizing basic needs inferred in the adult and old.

NURT 107
Nursing Primary Care Mental Health and Psychiatry
Five Credits
In this course, students involved with clients in various stages of mental health in the community, such as mental health facilities, mental health centers, control agencies of alcohol and drugs, and other. Notes on mental health day centers conduct their clients and intervenes in individual and group therapy. Participate in prevention, promotion and rehabilitation of clients, family and community in the area of mental health. The course includes three hours of theory and six weekly clinical practices in various mental health agencies. Clinical practice facilitates the acquisition of knowledge, skills and attitudes to provide nursing care to clients with psychosocial disorders in institutions and in the community setting.

NURT 107L
Clinical Laboratory of Primary Care Mental Health Nursing and Psychiatric
Cero Credit
In this lab the student will perform interventions with clients in various stages of mental health and psychiatry in the community.

NURT 108
Practical Nurse's Role in the Community
Three Credits
This course provides students with knowledge and appreciation of the management and leadership in nursing. Use critical thinking through discussion and group dynamics also oral and written activities related to the course content. We discuss the leadership roles of the nurse, the criteria for continuing education and graduate studies. Promotes communication skills essential to perform the roles required by the nursing profession.

NURT 109
Review of Nursing Practice Revalidation
Three Credits
This course is designed to assist students in preparing to take one of the most important exams taken. This is a test that assesses knowledge state must possess a minimum nurse to practice safely exercise. Approve, represents a guarantee for people's health. But it is also evidence of the talents, commitment and desire to serve, characteristics that distinguish a true professional.

OFAT 102
Medical Terminology
Three Credits
The course of Medical Terminology was designed so that the student knows and learns the terms and aspects used in a medical facility. It will provide to the student the opportunity to learn the different parts from the human body and their structures. In addition, the student will know the words and their meaning in the medical aspects, as well as codes, suffixes and the roots.

OFAT 108
Billing
Three Credits
This course provides students with the knowledge, skills and abilities to create, process and bill health services to business plans, and federal government. Students will learn the responsibilities of HIPAA to process invoices, meetings and document them fully and know the supporting documents to obtain payment of the same.

OFAT 122
Coding
Three Credits
Coding Course I, including the study of the classification of diseases and health condition, as well as introduction to ICD 10, its development and presentation of the structures, organization and implementation the same. We study also the medical procedures aligned CPT 4 each diagnostic procedure performed, while guidelines apply health plans in Puerto Rico.

OFAT 123
Billing Audit
Three Credits
This course is designed for the student to check the bills, their most common errors and determine the reason for the denial. The audit is the mechanism of measurement of income received and receivable losses occurring in the billing process.

OFAT 124
Electronic Billing
This course prepares students in the use and management of electronic billing program. The student will be able to work the full cycle of electronic invoicing.

OFAT 125
Practice
Three Credits
The course offers the student the opportunity to apply the knowledge's already acquired in the academic program, in a real work environment. The student will work 4 days in the week in a practice center and his or her performance will be evaluated by the assigned supervisor in the practice center. One day of the week, the student will meet with the practice coordinator to discuss the work done, performance and experiences and to identify any areas that needed reinforcement.

OFAT 126
Legal and Administrative Procedures
Three Credits
This course is designed for the students to check the bills, their most common errors and determines the reason for the denial. The audit is the mechanism of measurement of income received and receivable losses occurring in the billing process.

OFAT 127
Electronic Medical Record
Three Credits
This course prepares students in the use and management of electronic records and electronic billing program. The student will be able to work a full course of medical electronic information.

PALT 100
Legal Computer
Three Credits
This course prepares students in basic skills to prepare legal documents incorporating technology and legal issues relevant material to provide support in the legal office.

PALT 110
Mortgage Law
Three Credits
The course introduces the general principles of Mortgage Law and its regulation. Emphasis will be given to the structure and functioning of the Property Registry in Puerto Rico. The student will learn about the importance of the day by day operations, legal research, and study of titles, documents presentation and duties.

PALT 111
Civil Procedure
Three Credits
In the first part of this course students will be introduced to the most important stages of Civil Procedure governing in Puerto Rico. It will focus on the initial client interview, in drafting the complaint, the sites and all other stages of Civil Procedure in order to familiarize the Technical Paralegal with all aspects of the Rules of Civil Procedure in the Judicial System of Puerto Rico.

PALT 112
Canons of Ethics and Professional Responsibility
Three Credits
The course discusses the responsibilities of members of the legal profession to ensure that the various legal processes in society effectively incorporate the canons of professional ethics. Student will learn that every lawyer must, citizen and his professional capacity, whether as judge, prosecutor, lawyer, and consultant or in any other capacity, act always according to the canons of ethics of professional conduct.

PALT 115
Legal Research and Writing
Three Credits
In the course the student will know the theory about the sources of law and legal research methodology. We study the structure, use and citation of primary literature sources elementary and secondary search. The study and practice of the drafting of legal documents complement the academic experience as researchers in the field of law.

PALT 116
Private Law I
Three Credits
The student sore right family, obligations, contracts and the law of succession. Understand the legal concepts of the person, legal capacity, marriage and its effects, and marital separate property, obligations, contracts, inheritance and legacy.

PALT 117
Criminal Law
Three Credits
This course examines the general principles of criminal law and offenses under the Penal Code in Puerto Rico.

PALT 118
Criminal Procedures Law
Three Credits
This course is designed for the purpose of preparing professionals in criminal and competent in research and analysis of criminal cases. It will be provide the student with knowledge of the structures and processes of investigation in criminal cases.

PALT 119
Special Criminal Laws
Three Credits
Study the rules of interpretation, application and discussion of the law of private detectives of Puerto Rico, ethics and jurisprudence applicable to the profession of detective.

PALT 120
Public Law
Three Credits
The student will learn public law through the studies of administrative law; discipline that studies the genesis, development, organization, administrative agencies power, as well as the norms that guide the processes of: investigation, regulations and judgments of those organisms. They will also study different ways of administrative discretion, through procedural norms, judicial principles and constitutional statutes, guided to protect the citizen and commerce against arbitrary acts of administrative agencies.

PALT 121
Private Law II
Three Credits
The student will learn the law of succession. Understand the legal concepts of inheritance, heirs, types of wills and bequests.

PALT 122
Real Rights
Three Credits
The student will identify what is a good, their classifications, rights and obligations upon them. Also learn how these can be purchased, covey, transfer and rights of the holder or owner.

PALT 123
Evidence
Three Credits
Study of the Rules of Evidence its essential characteristics and application in civil and criminal cases. Exceptions and emphasizes techniques for presentation of evidence, case preparation and testimony in court.

PALT 135
Preparation and Testimony in Court Cases
Three Credits
The student will examine the most fundamental stages of the preparation of a course. Overall, students will learn to perform the research study of a case, since the submission of the state of facts, the relevant evidence to the trial and sentencing.

PALT 175
Practice of Paralegal Skills
Three Credits
The course offers the student the opportunity to apply the knowledge already acquired in the academic program, in a real work environment. The student will work 4 days in the week in a practice center and his or her performance will be evaluated by the assigned supervisor in the practice center. One day of the week, the student will meet with the practice coordinator to discuss the work done, performance and experiences and to identify any areas that needed reinforcement.

PALT 185
Basic Civil Rights
Three Credits
The course goes directed to examine the individual guarantees that emanate (in form it disperses) of the sources statuaries' and constitutionalists like that the jurisprudence emitted by our Supreme Court. It is directed to study and to analyze the diverse governmental performances that usually are inconsistent with all the protections and safeguards of the legal ordering of Puerto Rico.

PATH 103
Pharmaceutical Calculations I
Three Credits
This course prepares students to recognize the basic concepts of a prescription or medical order. Emphasizes pharmaceutical medical systems calculations, conversions, ratio and proportion.

PATH 104
Pharmaceutical Calculations II
Three Credits
This course prepares students to solve mathematical problems for filling a prescription. Emphasizes analysis, decision making and implementation of the ratio and proportion methods, dilution, concentration and flow rate calculated.

PATH 117
Pharmacy Introduction
Two Credits
Study of the origin and evolution of pharmacy. It includes discussion of basic concepts and terminology of the occupation of pharmacy technician. Emphasis on prescription and important abbreviations used in the prescription and its meaning, as well as procedures for handling and shipping thereof. Includes presentation forms of medicine, common synonyms and other preparations.

PATH 122
Pharmacognosy
Three Credits
Study of drugs derived from natural products of plant, animal and mineral extraction and purification methods, chemical composition, therapeutic use and effects on the body. Includes drugs obtained by biosynthesis in pharmaceutical and medicinal plants from Puerto Rico.

PATH 206
Drugs over the Counter
Three Credits
Discuss drugs available without a medical prescription, over the counter medicines, which are used in the prevention or treatment of the most common conditions affecting humans. The use of equipment, devices and common accessories available for sale in community pharmacies that are used for testing or monitoring of some common medical conditions or treatments. Includes a section on homeopathy because of the boom that it has acquired in recent years.

PATH 220
Dosage
Three Credits
Provides the necessary tools to introduce students to the fundamental concepts of the pharmacy related to the administration of medications and dosage forms for adult, pediatric. Includes equivalents and calculation of parenteral

and insulin dose. Study of different routes of administration, special design features and management with its use.

PATH 224
Pharmacy Practice Laboratory
Three Credits
Practical Study of Pharmacy Technician functions related to the supply of medicinal products. Development of skills in the use and handling of equipment and books required by law. Analysis of the recipe for release from the interpretation, product selection, extemporaneous preparations, labeling and packaging. Includes responsibilities Pharmacy Technician in the hospital environment with emphasis on the most common drugs used in the hospital, techniques and sterile preparations and preventive measures to avoid errors in the process of preparation of a medicinal product.

PATH 225
Internship I
Six Credits
Integration of knowledge and skills acquired in a real scenario that facilitate the development and strengthening internal core competencies to serve as a Pharmacy Technician future. The internship takes place in a community pharmacy, chain or institutional or a combination of these and it will be supervised by a licensed pharmacist duly authorized by the Pharmacy Examining Board, as stipulated in the Law # 247 Pharmacy Act Puerto Rico. Total hours required during the period is 500 hours.

PATH 226
Internship II
Six Credits
Integration of knowledge and skills acquired in a real scenario that facilitate the development and strengthening internal core competencies to serve as a Pharmacy Technician future. The internship takes place in a community pharmacy, chain or institutional or a combination of these and it will be supervised by a licensed pharmacist duly authorized by the Pharmacy Examining Board, as stipulated in the Law # 247 Puerto Rico Pharmacy Act . Total hours required during the period is 500 hours to complete the 1,000 hours required by the Pharmacy Examining Board as established by law and thus complete the requirements to be eligible for revalidation of Pharmacy Technician.

PATH 227
Pharmaceutical Chemistry
Three Credits
Study of the basic concepts of composition, structure, properties and behavior of matter. Emphasis on pharmaceutical chemicals serving in the daily life of human beings.

PATH 228
Administration, Communication and Customer Service
Three Credits
It presents the basics of effective communication of verbal and written form, and the correct way to establish a cordial relationship between the Technician Pharmacy and the patient, as with coworkers. Familiarizes students with issues of self-esteem, personality, human relations, search employment and interview.

PATH 229
Pharmacotherapy I
Three Credits
Study of the various systems and organs of the human body from structurally and functionally. It presents fundamental concepts of structure and functioning of the human body, the conditions and treatment of the integumentary, musculoskeletal and nervous and respiratory system. Emphasis in the treatment of conditions that affect the various body systems and increased use of drugs belonging to different categories based on clinical application. Including contraindications, precautions, warnings, interactions, dosage and side effects of drugs.

PATH 230
Pharmacotherapy II
Three Credits
Study of the various systems and organs of the human body from structurally and functionally. It presents fundamental concepts of structure and functioning of the human body, the conditions and treatment of the endocrine, circulatory, respiratory, digestive, urinary and reproductive systems. Emphasis in the treatment jof conditions that affect the various body systems and increased use of drugs belonging to different categories based on their clinical application. Including contraindications, precautions, warnings, interactions, dosage and side effects of drugs.

PATH 231
Pharmaceutical Legislation
Three Credits
Study of state and federal laws governing research, development, manufacturing, packaging, marketing, sale and distribution of drugs and devices medical. Emphasis on the laws governing the exercise of the profession of pharmacy as well as of Pharmacy Technicians. It includes procedures for the organization a pharmacy and physics; requirements, equipment, licenses and permits.

PHAT 103
Pharmaceutical Calculations I
Three Credits
This course prepares students to recognize the basic concepts of a prescription or medical order. Emphasizes pharmaceutical medical systems calculations, conversions ratio and proportion.

PHAT 104
Pharmaceutical Calculations II
Three Credits
This course prepares students to solve mathematical problems for filling a prescription. Emphasizes analysis, decision making and implementation of the ratio and proportion methods, dilution, concentration and flow rate calculated.

PHAT 106
Drugs over the Counter
Three Credits
Discuss drugs available without a medical prescription, over the counter medicines, which are used in the prevention or treatment of the most common conditions affecting humans. The use of equipment, devices and common accessories available for sale in community pharmacies that are used for testing or monitoring of some common medical conditions or treatments. Includes a section on homeopathy because of the boom that it has acquired in recent years.

PATH 117
Pharmacy Introduction
Two Credits
Study of the origin and evolution of pharmacy. It includes discussion of basic concepts and terminology of the occupation of pharmacy technician. Emphasis on prescription and important abbreviations used in the prescription and its meaning, as well as procedures for handling and shipping thereof. Includes presentation forms of medicine, common synonyms and other preparations.

PATH 120
Dosage
Three Credits
Provides the necessary tools to introduce students to the fundamental concepts of the pharmacy related to the administration of medications and dosage forms for adult, pediatric. Includes equivalents and calculation of parenteral and insulin dose. Study of different routes of administration, special design features and management with its use.

PHAT 122
Pharmacognosy
Three Credits
Study of drugs derived from natural products of plant, animal and mineral extraction and purification methods, chemical composition, therapeutic use and effects on the body. Includes drugs obtained by biosynthesis in pharmaceutical and medicinal plants from Puerto Rico.

PATH 124
Practical Laboratory of Pharmacy
Three Credits
Practical Study of Pharmacy Technician functions related to the supply of medicinal products. Development of skills in the use and handling of equipment and books required by law. Analysis of the recipe for release from the interpretation, product selection, extemporaneous preparations, labeling and packaging. Includes responsibilities Pharmacy Technician in the hospital environment with emphasis on the most common drugs used in the hospital, techniques and sterile preparations and preventive measures to avoid errors in the process of preparation of a medicinal product.

PHAT 125
Internship I
Six Credits
Integration of knowledge and skills acquired in a real scenario that facilitate the development and strengthening internal core competencies to serve as a Pharmacy Technician future. The internship takes place in a community pharmacy, chain or institutional or a combination of these and it will be supervised by a licensed pharmacist duly authorized by the Pharmacy Examining Board, as stipulated in the Law # 247 Pharmacy Act Puerto Rico. Total hours required during the period is 500 hours.

PHAT 126
Internship II
Six Credits
Integration of knowledge and skills acquired in a real scenario that facilitate the development and strengthening internal core competencies to serve as a Pharmacy Technician future. The internship takes place in a community pharmacy, chain or institutional or a combination of these and it will be supervised by a licensed pharmacist duly authorized by the Pharmacy Examining Board, as stipulated in the Law # 247 Puerto Rico Pharmacy Act . Total hours required during the period is 500 hours to complete the 1,000 hours required by the Pharmacy Examining Board as established by law and thus complete the requirements to be eligible for revalidation of Pharmacy Technician.

PHAT 127
Pharmaceutical Chemistry
Three Credits
Study of the basic concepts of composition, structure, properties and behavior of matter. Emphasis on pharmaceutical chemicals serving in the daily life of human beings.

PHAT 128
Administration, Communication and Customer Service
Three Credits
It presents the basics of effective communication of verbal and written form, and the correct way to establish a cordial relationship between the Technician Pharmacy and the patient, as with coworkers. Familiarizes students with issues of self-esteem, personality, human relations, search employment and interview.

PHAT 129
Pharmacotherapy I
Three Credits
Study of the various systems and organs of the human body from structurally and functionally. It presents fundamental concepts of structure and functioning of the human body, the conditions and treatment of the integumentary, musculoskeletal and nervous and respiratory system. Emphasis in the treatment of conditions that affect the various body systems and increased use of drugs belonging to different categories based on clinical application. Including contraindications, precautions, warnings, interactions, dosage and side effects of drugs.

PHAT 130
Pharmacotherapy II
Three Credits
Study of the various systems and organs of the human body from structurally and functionally. It presents fundamental concepts of structure and functioning of the human body, the conditions and treatment of the endocrine, circulatory, respiratory, digestive, urinary and reproductive systems. Emphasis in the treatment of conditions that affect the various body systems and increased use of drugs belonging to different categories based on their clinical application. Including contraindications, precautions, warnings, interactions, dosage and side effects of drugs.

PHAT 131
Pharmaceutical Legislation
Three Credits
Study of state and federal laws governing research, development, manufacturing, packaging, marketing, sale and distribution of drugs and devices medical. Emphasis on the laws governing the exercise of the profession of pharmacy as well as of Pharmacy Technicians. It includes procedures for the organization a pharmacy and physics; requirements, equipment, licenses and permits.

PDFT 101
Technical Report Writing Methods
Three Credits
This course develops skills of analysis reading and writing, because in order to write effectively, you need a discipline of reading. Intensively reinforces spelling skills and grammar. We study the syntactic construction patterns and excels in writing the importance of grammatical agreement and unity, coherence and organization in expository and argumentative essays. In the second part of the course will emphasize the writing, content and form of reports, records and documents paralegals and legal nature.

PDFT 102
Private Detective Law
Three Credits
Study the rules of interpretation, application and discussion of private detectives law of Puerto Rico, ethics and jurisprudence applicable to the detective profession.

PDFT 103
Constitutional Law
Three Credits
Introduction to the study of constitutional development in Puerto Rico, with an emphasis on civil, discussion and analysis of applicable state and federal law.

PDFT 104
Criminal Investigation
Three Credits
Study of the basic techniques and procedures in criminal investigation.

PDFT 105
Fingerprints and Photography
Three Credits
The course prepares the student in the field of fingerprinting, covering the history, interpretation, identification, sequence, location and file, latent prints, development and lifting fingerprints as well as fundamental aspects of photography and video as demonstrative evidence, physical and illustrative for the purpose of being used as a tool of evidence in court.

PDFT 106
Rules of Criminal Procedures
Three Credits
Study of the criminal procedures rules and its application in the judicial process. Analysis of the criminal procedures rules and its relationship with the constitutional rights of the accused. Study of the judicial interpretation of the rules by the supreme court of Puerto Rico.

PDFT 107
Arrest Techniques and Mechanisms
Three Credits
This is the study and application of techniques and mechanisms to make a lawful arrest respecting the constitutional right s of citizens.

PDFT 108
Surveillance and Monitoring
Three Credits
Study of techniques, strategies, processes and analysis equipment to collect evidence from different crime scenes by surveillance when observing authors and events. Application of scientific techniques and ethical considerations in the conduct of surveillance and monitoring procedures in a criminal investigation, discussion and analysis of jurisprudence.

PDFT 109
Integration Seminar of Investigative Techniques
Three Credits
This course aims to integrate the student knowledge, methods and techniques in a practical simulated scenario.

POSC 085
Civil Rights in Puerto Rico
Three Credits
The course presents statutory, constitutional and Supreme Court case law sources of civil rights guarantees in Puerto Rico. Case studies of contradictory government actions including legislation limiting rights will be studied. Three hours per week.

PRET 102
Health, Hygiene and Nutrition
Three Credits
The course is designed to train education students with the required competence in the areas of health, hygiene and nutrition applicable to all students to enable them to obtain a better quality of life.

PRET 107
Teaching Reading and Writing
Three Credits
Study and analysis of the theory and practice used in the teaching of writing in grades kindergarten to third. Development of teaching techniques and strategies used to teach writing to young children are emphasized. Includes diagnosis and correction of writing difficulties.

PRET 114
The Use of Computer Education
Three Credits
The course the computer in the education is directed to the aspects related to the evolution and impact of the computer in the education, the theories that support the integration from the same one to the educative field. The methodology will be used constructivist-humanist to sharpen the capacities related to the development of thought skills and solution of problems in the scholastic atmosphere where the students will become familiar with programs for computers, from a practical perspective.

PRET 119
Theory, Practices and the Game-Like Education Strategy
Three Credits
Study, practice and "'assessment"' of the theory uses of the game in the education of the early education (K-3). They will discuss to subjects such as the roll of the game in the integral development of the boy, the game like representation of the reality, the intention of the game, types of games, the intention of the evaluation of the game, rules to follow in the games and the games like technique of assessment.

PRET 122
Speech Development and Correction of Language
Three Credits
This course provides the future teacher with the information related to language development of preschool and elementary school children. The emphasis of this course is in identification and referral of children with these difficulties so they may receive the special services they will need to improve their oral communication.

PRET 123
CHILDREN'S LITERATURE
Three Credits
This course offers to the masterful future in most essential the theoretical and practical form of infantile. Literature within the program of the elementary school. The future masterful it must be equipped with a select and ample infantile baggage literary and with competitions of methodology that enable to him to use in the children's the taste by good literary works and to inspire them to produce them. In the course appropriate books will study, pictures, fiction folklore, poetry and games, the creativity in the students is stimulated.

PRET 135
Introduction to Education
Three Credits
First professional course in sequential teacher preparation program. It is based on the constructivist paradigm. The purpose of the course is to provide the prospective teacher conceptualizing goals and evaluating their strengths and weaknesses, in the light of relevant skills to their professional training and education. During this experience will give special attention to the observation and analysis of the school setting, as well as the teaching and learning processes. The course involves 15 hours of clinical experiences in schools. The student become and active thinking subject able to construct their own knowledge.

PRET 136
Curriculum and Teaching Methods
Three Credits
The course includes all the aspects of the integral development, which must know all student education. It includes the study of all the foundations of the preschool

education. In those areas appear all that propane to the physical development, social, emotional and cognitive of children. In addition, it includes history, new approaches or strategies, curricular and the pedagogical resources necessary to develop an excellent program of Kindergarten. It analyzes the components of the theory and practices of the preschool education with a multidimensional vision of all the process and its implantation.

PRET 139
Education for Exceptional Children
Three Credits
The study of nature and needs from handicapped, infants and preschool children. The criteria are discussed to determine the concepts and factors of high risk giving emphasis in the evaluation and diagnosis, techniques of education, adaptation and strategies of intervention with the early childhood with deficiencies in the development.

PRET 143
Practical Experiences at Preschool level for Assistants of Teachers
Three Credits
This is the practice teaching course for students who are completing concentration in Preschool Education. This is a clinical experience in which student teachers experiment and practice the knowledge, skills and attitudes obtained in their preparatory courses. The student- teachers will be responsible of conducting learning experiences of a group of children in a preschool program. Student -teacher will attend the preschool center for twenty hour a week and concurrent weekly seminars.

PRET 144
Administration of Educational Program for Infants, Toddlers and Preschool Children
Three Credits
Study and analysis of knowledge content and skills required in planning, managing and coordinating educational programs for infants, toddlers and preschool children. Topics discussed are: type of programs, planning and evaluation of goals, selection and supervision of human resources, use and maintenance of physical resources, the role of parents in the education of young children, government agencies that regulate programs and facilities, and current regulations regarding these programs.

PRET 166
Childcare in Preschool Education
Three Credits
Strategies for the physical and emotional care of children from three and four year olds including techniques of modifications of conduct and the attention of resolution of conflicts. Discussion of nutrition aspects, health and security aspect related to the preschool programs.

PRET 171
Human Growth and Development
Three Credits
The course is an analysis based on the studies of the educative psychology and the growth processes and human development. The processes study that happen in the human being from the moment of the conception to long it of all the stages of the development. The study of the physical, motor, sensorial development is included, of the language, psycho-social, emotional, moral, creativity, critical thought and solution of problems. The Psychological changes study that happen like result of the development of the different stages, the hereditary factors and environmental that motivates the human conduct. Also, the theories study that sustain the changes in the conduct of the human being.

PRET 172
Educational Psychology
Three Credits
This course provides an overview of concepts learning and intelligence and their relationship to human development. It examines the theoretical frameworks related to learning and intelligence and different learning styles. We discuss the theories of learning and their relationship to the functions of the teacher.

PRET 176
Classroom Management
Three Credits
This course aims to promote the comprehensive development of the student within a constructivist approach, alongside the development of critical thinking and philosophy of total quality. We will study the theories and models of classroom management. It will investigate the techniques and strategies to control groups and modification of behavior.

PRET 202
Preparation of Materials and Learning Devices
Three Credits
A laboratory course which combines graphic and instructional media processes for education and training purposes. Techniques for integrating media into instruction are examined. Student will develop instructional material taking into consideration principles of communication, appropriate and effective design, and the use and evaluation of these materials.

RESP 100
Introduction to Respiratory Care
Three Credits
This course introduces students to the medical discipline of respiratory care. Specifically addresses the historical, quality, ethics, security, communication and professional organization of the discipline. It enters in to the topic of oxygen administration and the techniques used for this

purpose. Briefly describes the topics included within the field of respiratory care.

RESP 101
Cardiopulmonary Anatomy and Physiology
Three Credits
Course leading to develop in students the knowledge of anatomy and physiology of the cardiopulmonary system and the different organs and functions of this system. After completing this course the student will be able to recognize and describe the organs that make up the cardiopulmonary system, and identify the physiological processes carried out by the organs of the cardiopulmonary system.

RESP 102
Principles of Respiratory Therapy
Three Credits
Develop primary knowledge of respiratory therapy and its history. Development and application of basic skills for adequate assessment of patients. Know the proper handling of humidity therapy, aerosol and oxygen in routine situations and / or emergencies.

RESP 202
Cardiopulmonary Pathophysiology
Three Credits
Recognition, diagnosis and management of cardio-respiratory conditions. Development of different techniques: diagnosis, recognition skills and therapeutic applications in the different conditions presented. Assess the patient according to diagnostic measures studied.

RESP 203
Respiratory Therapy Pharmacology
Three Credits
Course designed to train students in basic principles of pharmacology based on the treatment and management of cardio-respiratory conditions. Knowledge of proper use and indicated bronchia dilatator drugs, anti-inflammatories, antibiotics, prophylactic drugs, analgesics and anti-arrhythmic drugs.

RESP 204
Respiratory Management
Three Credits
This course is designed to train students in therapeutic treatments hyperinflation therapy, chest physiotherapy and airway management of natural and artificial. Procedures of extubation of patients. Understand and apply the techniques of hyperinflation therapy. Know and apply the techniques of chest physical therapy. Understand and apply management techniques natural and artificial airways.

RESP 205
Diagnostic Evaluation in Respiratory Care
Three Credits
This course provides relevant information related to the knowledge and skills that are necessary for the respiratory therapist is competent in the diagnostic evaluation of the patient. Included in some detail the basic principles of history and physical exam skills including obtaining vital signs, and the rationale and interpretation of diagnostic tests for blood gases, chest X-rays and other images, flexible bronchoscopy, monitoring cardiac output, the nutritional assessments, breathing patterns and documentation of the diagnostic evaluation.

RESP 206
Sample of Blood Gases and Function
Two Credits
This course is designed in the evaluation, implementation, management and interpretation of arterial blood gas sample and simple pulmonary function tests. Evaluate and make pulmonary function tests. Perform various tests to measure lung function. Suggest additional pulmonary function tests and / or specialized for specific cases. Take, analyze and interpret blood tests for blood gases. Suggest oxygenation changes respiratory treatment based on blood gas results.

RESP 207
Mechanical Ventilation
Three Credits
Course designed to train students in basic and advanced principles of mechanical ventilation. Identifying the issues concerning the initiation, monitoring and weaning of adult patients on mechanical ventilation and noninvasive.

RESP 208
Neonatal and Pediatric Patient Management
Three Credits
This course is designed for students to study the evaluation and implementation of pediatric and neonatal respiratory care, emphasizing the management of cardio-respiratory conditions. In addition to situations that lead to patient mechanic ventilation. Evaluate basic and advanced pediatric and neonatal patients. Recognizing the diagnosis and treatment of cardiopulmonary conditions more common in pediatric and neonatal. Start, change parameters and/or weaning pediatric and neonatal patients off mechanical ventilation.

RESP 209
Practicum
Four Credits
This course is designed for the student evaluates and intervenes with adult, pediatric and neonatal hospital in a real clinical setting. It can apply the knowledge gained in therapeutic and diagnostic procedures, including airway management, CPR, oxygen, aerosol therapy. Development of

clinical and practical knowledge of the student, including general adult care, pediatric and neonatal. Integrate the principles of cognitive, affective and psychomotor skills in patient care situations. Adequate use and proper application of basic equipment and advanced respiratory patterns. The clinical portion of the course will consist of 15 hours per week for the duration of these 15 weeks making a total of 225 hours.

RESP 210
Knowledge Integration in Respiratory Therapy
Three Credits
This course is a review of all concepts and practices studied in the Respiratory Care Program with the intention of providing the necessary integration with a view to taking the examinations for licensing and accreditation.

APPENDIX

Appendix A

Satisfactory Academic Progress Tables

Technical Certificate Programs		
Credits Attempted	% of Credits Earned	GPA
1 – 15	55%	1.65
16 – 30	60%	1.75
31 – 45	64%	1.90
46 +	67%	2.00

Associate's Degree Programs		
Credits Attempted	% of Credits Earned	GPA
1 – 28	57%	1.70
29 – 56	62%	1.85
57 +	67%	2.00