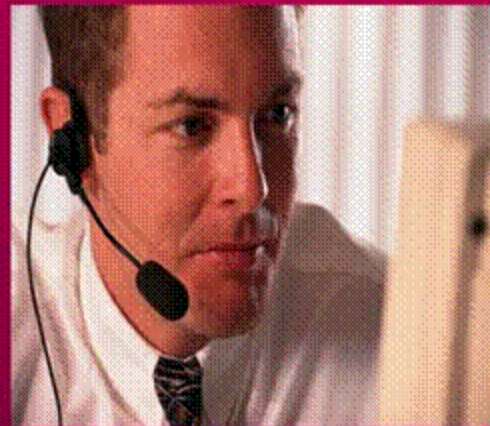


Sistema Universitario Ana G. Méndez



UNIVERSIDAD METROPOLITANA
CATALOG 2012-2014
School of Professional Technical Studies



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Universidad Metropolitana

Universidad Metropolitana is a private, not for-profit higher education institution, and a member of the Ana G. Méndez University System (AGMUS), which has always been distinguished for its commitment to achieve excellence in education and to offer educational opportunities based on the needs of our students and of the Puerto Rican Community.

School of Technical Studies

The School of Technical Professional Studies is a specialized academic division designed to meet the academic and personal needs of a growing number of students who seek short-term, professional education in order to enter the job market as their main goal. By doing this the School also addresses immediate employment needs of the community that the university serves. The School not only serves student population in the main campus but also in the off-campus locations the university has throughout the island.

Vision

To become the first option and model in postsecondary technical education programs in Puerto Rico. The School will also represent an important component and contributor in strengthening UMET'S undergraduate enrollment.

Mission

The mission of the School of Technical Professional Studies is to offer high quality, short-term, technical education to students who seek to enter the job market as their main goal. Students will be able to pursue an university level technical certificate or a specialized, technical associate degree, and will receive the proper training to meet the occupational needs for trained personnel in the fields of banking, commerce, industry and government. Students will also develop those skills and competencies necessary to enable them for self-employment and to develop their own business opportunities.

Objetives

To fulfill its Mission the School of Technical Professional Studies will:

1. Offer certificate an associate degree programs designed to prepare students in the necessary skills that will allow them to compete effectively in the employment market.
2. Design and maintain programs that will promote the student's effective working experience.
3. Endow student with the knowledge, skills and attitudes needed to perform with efficiency, dignity, and ethics in his/her respective professions.
4. Educate capable professionals with a sense of social responsibility.
5. Provide technical education that will respond to the present and future demands of the job markets.

6. Develop in the students the skills and knowledge related to their profession, in accordance to the needs or the community we serve.
7. Provide support services to promote the persistency and retention of the student in the program and to contribute to his academic and professional success.

Administration and Staff

Carmen Z. Ramírez - Dean
Laura E. Aponte – Associate Dean
Academic Coordinator
Eunice Ortiz Ramirez – Integrated Students' Services Coordinator
María M. Franqui – Administrative Secretary
Aixa Bodón – Administrative Coordinator

Admission Requirements

1. Diploma from an accredited high School or its equivalence
2. Submission of the following requirements:
 - a. A complete application for admission
 - b. An official high school transcript
 - c. A non-refundable application fee of \$15.00

Course Substitutions

A student with a certificate from UMET or another Higher Education Institution applying for a related associate degree must submit evidence of completion before or at the beginning of the admission procedure.

A special evaluating committee from the School of Technical Studies and the Registrar's Office will study the evidence submitted. No specialization courses with a passing grade below C will be considered for substitution. With respect to General Education courses, UMET's general dispositions for substitution will be honored.

Certificate courses will substitute those associate degree courses that are considered as equivalent to the respective associate degree curriculum in accordance to an Equivalency Chart that is revised periodically by the School of Technical Studies.

Registration and other Related Procedures

The Registrar's Office is responsible for the maintenance of all official academic records of the students and for issuing transcripts, certification, registration and graduation certificates, as well as submitting or mailing the grades reports to students. All academic policies in the University Catalogue will apply to the STS students. Special exceptions will be notified.

Standards for Satisfactory Academic Progress

The purpose of the Standards for Satisfactory Academic Progress is to assure that students who receive federal aid for their studies make good use of the funds by maintaining reasonable academic progress until they complete the requirements of the academic program within the time limits established by the Institution. It also establishes a formal process for early detection of retention problems and their appropriate solutions.

At Universidad Metropolitana, Satisfactory Academic Progress will be understood as the status of a student that has maintained the required ratio of the amount of credits achieved with a corresponding established Grade Point Average.

1. Attempted Credits are the number of credits of registered courses, independently of the grades received. This includes accepted transfer credits.
2. Approved Credits are the number of credits of all courses in which grades of A, B, C, D, or P, including transfer credits, are obtained.

The students should approve the course according to the Standard of Academic Progress for the type a of academic program in which they are enrolled: associate degree, undergraduate certificates, and graduate certificates according to the number of accumulated credits and the cumulative academic grade point average, as established in the following tables:

Technical Certificate of 36 credits		
Accumulated	% Required	Retention
Attempted	of Attempted	Index
Credits	Credits Approved	Required
1-13	50%	1.60
14-27	55%	1.80
28-42	60%	2.00
43-54	67%	2.00

Technical Certificate of 39 credits		
Accumulated	% Required	Retention
Attempted	of Attempted	Index
Credits	Credits Approved	Required
1-15	50%	1.60
16-30	55%	1.80
31-45	60%	2.00
46-59	67%	2.00

Technical Certificate of 40 credits		
Accumulated	% Required	Retention
Attempted	of Attempted	Index
Credits	Credits Approved	Required
1-15	50%	1.60
16-30	55%	1.80
31-45	60%	2.00

46-60	67%	2.00
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Technical Certificate of 41 credits		
Accumulated	% Required	Retention
Attempted	of Attempted	Index
Credits	Credits Approved	Required
1-15	50%	1.60
16-30	55%	1.80
31-45	60%	2.00
46-62	67%	2.00

Technical Certificate of 42 credits		
Accumulated	% Required	Retention
Attempted	of Attempted	Index
Credits	Credits Approved	Required
1-15	50%	1.60
16-30	55%	1.80
31-45	60%	2.00
46-63	67%	2.00

Technical Certificate of 43 credits		
Accumulated	% Required	Retention
Attempted	of Attempted	Index
Credits	Credits Approved	Required
1-15	50%	1.60
16-30	55%	1.80
31-45	60%	2.00
46-65	67%	2.00

Technical Certificate of 48 credits		
Accumulated	% Required	Retention
Attempted	of Attempted	Index
Credits	Credits Approved	Required
1-12	50%	1.60
13-24	53%	1.70
25-36	56%	1.80
37-48	59%	2.00

49-60	62%	2.00
61-72	67%	2.00

Technical Certificate of 50 credits		
Accumulated	% Required	Retention
Attempted	of Attempted	Index
Credits	Credits Approved	Required
1-12	50%	1.60
13-24	53%	1.70
25-36	56%	1.80
37-48	59%	2.00
49-60	62%	2.00
61-75	67%	2.00

Technical Certificate of 51 credits		
Accumulated	% Required	Retention
Attempted	of Attempted	Index
Credits	Credits Approved	Required
1-12	50%	1.60
13-24	53%	1.70
25-36	56%	1.80
37-48	59%	2.00
49-60	62%	2.00
61-77	67%	2.00

Technical Certificate of 52 credits		
Accumulated	% Required	Retention
Attempted	of Attempted	Index
Credits	Credits Approved	Required
1-12	50%	1.60
13-24	53%	1.70
25-36	56%	1.80
37-48	59%	2.00
49-60	62%	2.00
61-78	67%	2.00

Technical Certificate of 53 credits		
Accumulated	% Required	Retention
Attempted	of Attempted	Index
Credits	Credits Approved	Required
1-12	50%	1.60
13-24	53%	1.70
25-36	56%	1.80
37-48	59%	2.00
49-60	62%	2.00
61-80	67%	2.00

Technical Certificate of 57 credits		
Accumulated	% Required	Retention
Attempted	of Attempted	Index
Credits	Credits Approved	Required
1-12	50%	1.60
13-24	53%	1.70
25-36	56%	1.80
37-48	59%	2.00
49-60	62%	2.00
61-86	67%	2.00

Technical Certificate of 58 credits		
Accumulated	% Required	Retention
Attempted	of Attempted	Index
Credits	Credits Approved	Required
1-12	50%	1.60
13-24	53%	1.70
25-36	56%	1.80
37-48	59%	2.00
49-60	62%	2.00
61-87	67%	2.00

Associate Degree Programs

Associate degree of 54 credits		
Accumulated	% Required	Retention
Attempted	of Attempted	Index
Credits	Credits Approved	Required
1-15	50%	1.50
16-30	54%	1.65
31-45	58%	1.75
46-60	62%	2.00
61-81	67%	2.00

Associate degree of 60 credits		
Accumulated	% Required	Retention
Attempted	of Attempted	Index
Credits	Credits Approved	Required
1-16	50%	1.50
17-32	54%	1.65
33-48	58%	1.75
49-63	62%	1.90
64-80	64%	2.00
81-90	67%	2.00

Associate degree of 63 credits		
Accumulated	% Required	Retention
Attempted	of Attempted	Index
Credits	Credits Approved	Required
1-16	50%	1.50
17-32	54%	1.65
33-48	58%	1.75
49-63	62%	1.90
64-80	64%	2.00
81-96	67%	2.00

Associate degree of 64 credits		
Accumulated	% Required	Retention
Attempted	of Attempted	Index
Credits	Credits Approved	Required
1-16	50%	1.50
17-32	54%	1.65
33-48	58%	1.75
49-63	62%	1.90
64-80	64%	2.00
81-95	67%	2.00

Associate degree of 65 credits		
Accumulated	% Required	Retention
Attempted	of Attempted	Index
Credits	Credits Approved	Required
1-16	50%	1.50
17-32	54%	1.65
33-48	58%	1.75
49-63	62%	1.90
64-80	64%	2.00
81-98	67%	2.00

Associate degree of 66 credits		
Accumulated	% Required	Retention
Attempted	of Attempted	Index
Credits	Credits Approved	Required
1-16	50%	1.50
17-32	54%	1.65
33-48	58%	1.75
49-63	62%	1.90
64-80	64%	2.00
81-99	67%	2.00

Associate degree of 68 credits		
Accumulated	% Required	Retention
Attempted	of Attempted	Index
Credits	Credits Approved	Required
1-17	50%	1.50
18-34	54%	1.65
35-51	58%	1.75
52-68	62%	1.90
69-85	64%	2.00
86-102	67%	2.00

Associate degree of 69 credits		
Accumulated	% Required	Retention
Attempted	of Attempted	Index
Credits	Credits Approved	Required
1-17	50%	1.50
18-34	54%	1.65
35-51	58%	1.75
52-68	62%	1.90
69-85	64%	2.00
86-104	67%	2.00

Associate degree of 70 credits		
Accumulated	% Required	Retention
Attempted	of Attempted	Index
Credits	Credits Approved	Required
1-18	50%	1.50
19-36	54%	1.65
37-54	58%	1.75
55-72	62%	1.90
73-90	64%	2.00
91-105	67%	2.00

Associate degree of 71 credits		
Accumulated	% Required	Retention
Attempted	of Attempted	Index
Credits	Credits Approved	Required
1-18	50%	1.50
19-36	54%	1.65
37-54	58%	1.75
55-72	62%	1.90
73-90	64%	2.00
91-107	67%	2.00

Eligibility Requirements for Financial Assistance Program

To continue receiving financial assistance, student eligibility will be determined by the progress scales in credits and grade point average according to the student's amount of attempted and cumulative credits during the academic terms in which he/she is enrolled.

The benefits of the economic assistance programs will have a time limit that will not exceed 150% of the total of the required credits per program.

The student will be evaluated at the end of each semester to determine his/her eligibility for economic assistance programs. The student has a right to appeal the institutional determination regarding his/her status if he/she understands that there is academic progress and that the institution's determination is due to an administrative error or that, during the academic year a critical situation existed that impeded him/her of obtaining satisfactory academic progress as established by the Institution.

Graduation Requirements

Students at UMET are eligible to receive their degrees after the completion of the following requirements:

1. The candidacy application form, completed by the date established in the academic calendar.
2. The prescribed number of credits hours with a grade point average of 2.00 or more.
3. Graduation applicants must have satisfied all their financial obligations to the Institution.
4. Graduation applicants must submit themselves to the rules and graduation requirements in the catalogue of the year they expect to graduate.

Academic Programs

The academic programs offered at the School of Technical Studies have the purpose of satisfying the occupational demands of qualified personnel in careers under a one or two years format developing the necessary skills to compete effectively in the employment market.

The STS'S curriculum has been developed considering the quality that has always distinguished the academic offerings at the Ana G. Méndez University System.

I. Academic Programs

A. Purpose

- Satisfy the occupational demands
- Capacitate skilled personnel in technical careers of one or two years duration
- Develop a curriculum using the academic quality that distinguishes the Ana G. Mendez System

II. Structure of the Academic Programs

A. Unit/Credits

- Credit Hours: a credit equals 15 of contact hours
- Academic Term: Trimester and Semester

B. Regulation Basis

- Federal Regulation: all the certificate courses should be equivalent to a university degree (Associate or Bachelor degree) if the credit unit of credit hour is used.
- General Education Council
- Higher Education Council
- Examination Boards

Academic Programs Credits

Technical Certificates

Banking Operations

The program includes training in banking operations, administration, and computer applications. Analyses the processes in commercial and mortgage banking, savings and credit associations, cooperative and financial institutions, and brokerage firms.

CURRICULUM (41 credits- 615 hours)			
CODE	DESCRIPTION	CR	HOURS
FIRST SEMESTER			
BANK 1100	Banking Strategy I	3	45
OFAD 1100	Keyboarding	4	60
BANK 1120	Investments Foundations I	3	45
MATH 1101	Basic Mathematics	3	45
ETIC 010	Ethical Foundations	3	45
SECOND SEMESTER			
BANK 1110	Banking Strategy II	3	45
BANK 1140	Administrator I-Teller	3	45
ACCO 1111	Basic Accounting	4	60
BANK 1150	Investments Foundations II	3	45
THIRD SEMESTER			
BANK 1160	Administrator II – Teller	3	45
BANK 1130	Banking Strategy III	3	45
COMP 1130	Electronic Spreadsheets (Excel)	3	45
BANK 1170	Bank Administration	3	45

Medical Plan Billing and Claims

The Curriculum prepares skilled personnel as technicians to work in private medical offices, insurance companies, and health centers at Medical Billing Plan and Claim departments

CURRICULUM (57 credits- 915 hours)			
CODE	DESCRIPTION	CR	HOURS
FIRST SEMESTER			
FYIS 101	First Year Induction Seminar	3	45
ENGL 101	Basic English	3	45
OFAD 1100	Keyboarding	4	60
NURS 1201	Medical Terminology	3	45
MATH 101	Arithmetic and Its Applications	3	45
SECOND SEMESTER			
OFAD 1110	Document Production I	3	45
OFAD 1022	Coding	3	45
OFAD 1008	Basic Billing	3	45
ACCO 1111	Basic Accounting	4	60
SPAN 101	Basic Spanish	3	45
THIRD SEMESTER			
OFAD 1115	Communication and Document Writing	4	60
OFAD 1024	Electronic Billing	3	45
OFAD 1125	Technical Reports	3	45
COMP 1130	Electronic Spreadsheet (Excel)	3	45
FOUR SEMESTER			
OFAD 1026	Audit Health Care Billing	3	45
OFAD 1027	Administrative Procedures in	3	45

	Medical Offices		
OFAD 1128	Theory and Practice in Medical Facilities	3	45
EMMA 101	Introduction to Entrepreneurship	3	45

Computer Programming

The Computer Programming certificate facilitates modern techniques in the area of information systems to work as a computer programmer. The students will operate programs using the most commercial vocabulary in the job market.

CURRICULUM			
(40 credits-600 hours)			
CODE	DESCRIPTION	CR	HOURS
FIRST SEMESTER			
COMP 1101	Computer Literacy	3	45
COMP 1130	Computer Application	3	45
MATH 1111	Intermediate Algebra I	3	45
COMP 1131	Programming Logic	3	45
ETIC 010	Ethical Foundations	3	45
SECOND SEMESTER			
ACCO 1111	Basic Accounting	4	60
COMP 1110	Operating System	3	45
COMP 1120	Programming in BASIC	3	45
COMP 1140	Programming in COBOL I	3	45
THIRD SEMESTER			
COMP 1210	Programming in COBOL II	3	45
COMP 1160	Database	3	45
COMP 1150	Net Communications	3	45
COMP 1200	Development Projects	3	45

Pre School Teachers Assistant

The Teacher Assistant certificate provides the students with the latest strategies, techniques and information to assist the pre-school teacher in the classroom.

CURRICULUM			
(51 credits-825 Hours)			
CODE	DESCRIPTION	CR	HOURS
FIRST SEMESTER			
SPAN 101	Basic Spanish	3	45
ENGL 101	Basic English	3	45
EDUC 173	Growth and Human Development	3	45
COIS 200	Computers in Education	3	45
ETIC 010	Ethical Foundations	3	45
SECOND SEMESTER			
SPAN 102	Basic Spanish II	3	45
ENGL 102	Basic English II	3	45
EDUC 135	Foundations of Education	3	45
MATH 103	Basic Mathematics for Teacher	3	45
EDUC 170	Introduction to Pre-School Education	3	45
THIRD SEMESTER			
EDUC 270	Learning Environment for Preschool Education	3	45
EDUC 300	Preschool Curriculum	3	45
EDUC 323	Children's Literature	3	45
EDUC 324	Preschool Education for Exceptional Children	3	45
FOURTH SEMESTER			
EDUC 427	Teaching Through Games	3	45
EDUC 1440	Practicum	6	150

Paralegal Investigator

The Paralegal Investigator certificate is designed to provide the student with the skills to support lawyers, judges, investigators, and other professionals in the Justice Department.

CURRICULUM			
(39 credits-585 hours)			
CODE	DESCRIPTION	CR	HOURS
FIRST SEMESTER			
PUAD 015	Communications and Writing	3	45
PSYC 005	Human Relations	3	45
POSC 085	Civil Rights	3	45
SOCI 025	Sociology of Deviation	3	45
ETIC 010	Ethical Foundations	3	45
SECOND SEMESTER			
SOSC 020	Social Investigation Techniques	3	45
CRIM 035	Case Management and Court Testimonials	3	45
CRIM 030	Correctional System of P.R.	3	45
CRIM 015	Evidence	3	45
THIRD SEMESTER			
CRIM 020	Criminal Investigation Techniques	3	45
CRIM 045	Forensic Sciences	3	45
CRIM 055	Special Criminal Statutes	3	45
CRIM 075	Practicum	3	45

Criminal Justice

The design of the academic program tries to take the student to positions at operational level in the field of Criminal Justice, so that they serve his professional as much to the sector public as like private. This Certificate includes part of the System of Criminal Justice on area of: Correction, Criminal Investigation, Courts, Rehabilitation and Justice of Minors.

CURRICULUM			
(39 credits-585 hours)			
CODE	DESCRIPTION	CR	HOURS
FIRST SEMESTER			
SOSC 101	Introductory to the Social Science	3	45
COSC 111	Computer Literacy	3	45
CRIM 107	Introduction to Criminal Justice	3	45
MATH 111	Intermediate Algebra I	3	45
ETIC 010	Ethical Foundations	3	45
SECOND SEMESTER			
SPAN 101	Basic Spanish	3	45
CRIM 110	General Principles of Penal Law	3	45
CRIM 310	Criminal Justice System of Puerto Rico	3	45
CRIM 318	Police Organization and Management	3	45
THIRD SEMESTER			
ENGL 101	Basic English	3	45
CRIM 207	Criminal Procedural Law and Evidence	3	45
CRIM 210	Criminal Investigation	3	45
CRIM 212	Law of Evidence	3	45

Technician in Environmental Quality

The Environmental Quality Technician certificate prepares professionals in the aspects related to environmental affairs. This will include: Management and disposal of toxic and non-toxic wastes, broad knowledge of the federal and state regulations that applies to Puerto Rico, analysis of the air components and their impact on community health, security and management of environmental disasters, control and monitoring of water quality in different bodies, filtration, and sewer plants and industrial treatment plants.

CURRICULUM (42 credits-630 hours)			
CODE	DESCRIPTION	CR	HOURS
FIRST SEMESTER			
STAT 1101	Introduction to Statistics	3	45
ENSC 1101	Introduction to Environmental Science	3	45
ENSC 1201	Environmental Laws and Regulations	3	45
ENSC 1211	Security and Emergency Response	3	45
ETIC 010	Ethical Foundations	3	45
SECOND SEMESTER			
AQUA 1101	Introduction to Water Resources	4	60
AQUA 1101L	Water Resources Laboratory	0	
AIRQ 1101	Introduction to Air Quality	4	60
AIRQ 1101L	Air Quality Laboratory	0	
CHEM 105	Environmental Chemistry	4	60
ENGL 101	Basic English	3	45
THIRD SEMESTER			
WAST 1101	Introduction to Waste Management I	3	45
ENSC 1210	Waste Water Treatment	3	45
ENSC 1221	Environmental Health	3	45
ENSC 1106	Environmental Education and Communication	3	45

Entrepreneurship

The technical certificate in Entrepreneurship gives the students the opportunity to acquire the knowledge to manage their own business. The students will learn to evaluate and analyze the risk factors and the ideal place to establish a business, sales projections, marketing, laws that apply to, and the preparation of a business plan.

CURRICULUM (40 credits-600 hours)			
CODE	DESCRIPTION	CR	HOURS
FIRST SEMESTER			
SPAN 103	Basic Spanish	3	45
ENGL 103	Basic English	3	45
ACCO 111	Basic Accounting	4	60
MANA 101	Introduction to Business	3	45
ETIC 010	Ethical Foundations	3	45
SECOND SEMESTER			
ENMA 101	Introduction to Entrepreneurship	3	45
ENMA 107	Business Mathematics	3	45
ENMA 207	Commercial Documents for Business	3	45
ENMA 302	Direction and Business Administration	3	45
THIRD SEMESTER			
ENMA 304	Entrepreneur Creation	3	45
ENMA 305	Entrepreneur Financing	3	45
ENMA 306	Computers for Entrepreneurs	3	45
ENMA 408	Entrepreneurship Seminar	3	45

Architectural Drafting

The Architectural Drafting certificate relates the students with the latest advances in technology for the production of computerized building designs, besides using the drawing table.

CURRICULUM (51 credits-1155 hours)			
CODE	DESCRIPTION	CR	HOURS
FIRST SEMESTER			
DRAF 011	Introduction to Architectural Drafting I	5	150
DRAF 011 L	Architectural drafting I Laboratory	0	
ETIC 010	Ethical Foundations	3	45
MATH 1106	Mathematics for Drafters	4	60
SECOND SEMESTER			
DRAF 022	Architectural Drafting II	5	150
DRAF 022 L	Architectural Drafting II Lab.	0	
OFAD 1100	Keyboarding	4	60
ART 017	Art Appreciation	3	45
ENGL 014	Reading Blueprints in English	3	45
THIRD SEMESTER			
DRAF 032	Architectural Drafting III	5	150
DRAF 032 L	Architectural Drafting III Lab.	0	
DRAF 021	AUTOCAD I	4	105
DRAF 021 L	AUTOCAD I Lab.	0	
DRAF 223	Building Construction Methods and Materials	3	45
FOURTH SEMESTER			
DRAF 042	Architectural Drafting IV	4	105
DRAF 042 L	Architectural Drafting IV Lab.	0	
DRAF 031	AUTOCAD II	5	150

DRAF 031 L	AUTOCAD II Lab.	0	
DRAF 033	Cost Estimating-ARPE Regulations	3	45

Hydroponics Technician

The Hydroponics Technician certificate studies modern technologies in horticulture without using soil as groundwork. As a technician the student has the knowledge to prepare a shelter (umbráculos) to crop by hydroponics methods and familiarize with the necessary equipment to fulfill this activity. Besides, with the entrepreneur component, the certificate prepares the student for the development of a small business.

CURRICULUM (42 credits-630 hours)			
CODE	DESCRIPTION	CR	HOURS
FIRST SEMESTER			
TEHI 1010	Introduction to Hydroponics Systems Planting	3	45
ENMA 107	Business Mathematics	3	45
TEHI 1011	Nutrition in Hydroponics Systems	3	45
MARK 133	Principles of Marketing	3	45
SECOND SEMESTER			
TEHI 1112	Commercial Production in Hydroponics	4	60
TEHI 1113	Hydroponics Systems Design	4	60
MARK 135	Retailing	3	45
ACCO 1111	Accounting	4	60
THIRD SEMESTER			
TEHI 1114	Phytoremediation	3	45
TEHI 1115	Appropriate Technology in Hydroponics	3	45
COIS 101	Introduction to Computers	3	45
ENMA 101	Introduction to Entrepreneurship	3	45
ETIC 010	Ethical Foundations	3	45

Administration of Recreational and Sports Programs

This certificate is designed to prepare specialized personnel to work in recreational and sport programs. The function of the administrator is to organize the activity, buy the necessary equipment, supervise the facilities maintenance, and supervise the recreational and sport leaders and to submit reports of financial statements.

CURRICULUM (39 credits-585 hours)			
CODE	DESCRIPTION	CR	HOURS
FIRST SEMESTER			
CTRE 100	Recreation as a Profession	3	45
CTRE 101	Legal Aspects of Recreation	3	45
CTRE 102	Informatics, Recreation and Sports	3	45
CTRE 103	Scientific Fundaments in Sports	3	45
ETIC 010	Ethical Foundations	3	45
STRE 1	Fitness Evaluation	0	
STRE 2	Weight Lifting Seminar	0	
STRE 3	Strategies for Teaching Physical Education	0	
SECOND SEMESTER			
CTRE 104	Health, Fitness Efficiency and Sports	3	45
CTRE 105	Recreation Program Planning	3	45
CTRE 106	Introduction to Sport Management	3	45
CTRE 107	Evaluation of Recreational Programs	3	45
ETIC 010	Ethical Fundaments	3	45
STRE 4	Children Training	0	
STRE 5	Athletics Referee	0	
STRE 6	Volleyball Referee	0	
THIRD SEMESTER			
CTRE	Planning Recreational	3	45

108	Programs		
CTRE 109	Writing Recreational Reports	3	45
CTRE 110	Practice on Recreational and Sports Program Administration	6	90
STRE 7	Basketball Referee	0	
STRE 8	Boxing Referee	0	
STRE 9	Football Referee	0	
STRE 10	Judo Referee	0	

Sports Initiation

This certificate is designed to prepare technicians in sports recreation. They will be responsible to organize the classes to support the interested ones. They will help to understand the techniques and develop the skills needed to participate in tournaments and special events. Organize teams in communities so they can compete with other teams in other communities

CURRICULUM (39 credits-585 hours)			
CODE	DESCRIPTION	CR	HOURS
FIRST SEMESTER			
CTRE 100	Recreation as a Profession	3	45
CTRE 101	Legal Aspects of Recreation	3	45
CTRE 102	Informatics, Recreation and Sports	3	45
CTRE 103	Scientific Fundaments in Sports	3	45
STRE 1	Fitness Evaluation	0	
STRE 2	Weight Lifting Seminar	0	
STRE 3	Strategies for Teaching Physical Education	0	
SECOND SEMESTER			
CTRE 111	Fundaments and Strategies in Sports	3	45
CTRE 112	Principles of Sports Training	3	45

CTRE 113	Teaching and Motor Movement Evaluation	3	45
CTRE 114	First Aids in Sports	3	45
STRE 4	Children Training	0	
STRE 5	Athletics Referee	0	
STRE 6	Volleyball Referee	0	
THIRD SEMESTER			
CTRE 115	Sports Management	3	45
CTRE 116	Sports Initiation Practice	6	90
CTRE 109	Writing Recreational Reports	3	45
STRE 7	Basketball Referee	0	
STRE 8	Boxing Referee	0	
STRE 9	Football Referee	0	
STRE 10	Judo Referee	0	

Insurance

This certificate is designed for the updating of the insurance agents emphasizing the practice, conceptual and interdisciplinary approaches like the team work. It is also design for people who are interest in beginning a career in the insurance industry. It gives emphasis in customer service and in the innovative approaches related to this industry.

CURRICULUM			
(36 credits-540 hours)			
CODE	DESCRIPTION	CR	HOURS
FIRST SEMESTER			
SPAN 103	Basic Spanish	3	45
MANA 125	Business Ethics	3	45
ENGL 103	Basic English	3	45

ENMA 101	Introduction to Entrepreneurship	3	45
SECOND SEMESTER			
COIS 101	Introduction to Computers	3	45
INSU 201	Introduction and Insurance Principles	3	45
MANA 131	Human Relations in Business	3	45
FINA 240	Risk and Insurance	3	45
THIRD SEMESTER			
INSU 1202	Life and Health Insurance	3	45
INSU 203	Property Insurance and Contingency	3	45
MARK 237	Selling Principles	3	45
MARK 133	Marketing Principles	3	45

Criminology

This certificate is designed to municipal policeman/woman or candidates who aspired to be in the police force. The student will received training in aspects of criminal investigations, laws and criminal procedures.

CURRICULUM			
(39 credits-585 hours)			
CODE	DESCRIPTION	CR	HOURS
FIRST SEMESTER			
ENGL 101	Basic English	3	45
SPAN 101	Basic Spanish	3	45
CRIM 107	Introduction to Criminal Justice	3	45
SOSC 101	Introduction to Social Sciences I	3	45
SECOND SEMESTER			
SOSC 102	Introduction to Social Sciences II	3	45

CRIM 110	General Principles ,Penal Rights and Crime	3	45
CRIM 118	Civil System	3	45
CRIM 207	Criminal Procedures	3	45
ETIC 010	Ethical Fundaments	3	45
THIRD SEMESTER			
SOCI 201	Social Principles I	3	45
PSYC 121	Psychology I	3	45
CRIM 210	Criminal Investigations Techniques	3	45
CRIM 310	Constitutional Civil Rights	3	45

Computers Repair and Network System Installation

The main objective of this program is to look for facilitate the effective application of the acquired theoretical and practical knowledge in technology of networks and all concerning the detection and the repair of problem with the "hardware". All this based on the requirements of the occupational sector in which it takes part and the development of attitudes that cause their professional and personal overcoming, it includes skills of effective communications, critical though, decision making and creativity, in addition to the capacities related to the use of instruments, tools and equipment, for a labor performance of high quality.

CURRICULUM			
(39 credits-585 hours)			
CODE	DESCRIPTION	CR	HOURS
FIRST SEMESTER			
ENGL 101	Basic English	3	45
COIS 101	Introduction to Computers	3	45
CRAN 201	Basics of Electronic Circuits	3	45
OFAD 141	Keyboarding	3	45
ETIC 010	Ethical Foundations	3	45

SECOND SEMESTER			
SPAN 101	Basic Spanish	3	45
COIS 215	Introduction to Software Development	3	45
MATH 111	Intermediate Algebra	3	45
CRAN 202	Installation and Computer Repair I	3	45
CRAN 204	Installation Windows Operating System	3	45
THIRD SEMESTER			
CRAN 203	Installation and Computer Repair II	3	45
CRAN 207	Introduction to the networks "LAN"	3	45
CRAN 208	Introduction to the networks "WAN"	3	45

Practice Nursing

CURRICULUM			
(41 credits- 615 hours)			
CODE	DESCRIPTION	CR	HOURS
FIRST SEMESTER			
BIOL 1106	Anatomy and Physiology (Survey Course)	4	60
PSYC 123	General Psychology	3	45
COIS 101 & Lab	Computer Literacy	3	45
PNUR 101	Nursing Process and Basic Skills	4	60
SECOND SEMESTER			
PNUR 102	Health, Fitness Efficiency and Sports	3	45
PNUR 105	Nursing Process applied to Health with Mental Problems	2	30
BIOL 1105	Microbiology	4	60
ENGL 101	Basic English	3	45

THIRD SEMESTER			
PNUR 103	Nursing Process applied to The Child, Adolescent and Family	3	45
PNUR 104	Nursing Process applied to Adult and Elderly	3	45
FOURTH SEMESTER			
MATH 101	Basic Mathematics	3	45
SPAN 101	Basic Spanish	3	45
PNUR 106	Nursing Process applied to The Community Health	2	30
PNUR 107	Seminars Practice Nursing	2	30

23	Pharmacist		
PHAT 024	Pharmacy Practice Laboratory	3	45
FOURTH SEMESTER			
PHAT 025	Internship I	6	590
FIFTH SEMESTER			
PHAT 026	Internship II	6	590

Associate Degrees

Associate Degree in Criminal Justice 63 Credits

Pharmacy Technicians

CURRICULUM (52 credits- 1,780 hours)			
CODE	DESCRIPTION	CR	HOURS
FIRST SEMESTER			
OFAD 1100	Keyboarding	4	60
PHAT 002	Pharmaceuticals Calculus	4	60
PHAT 016	Pharmacotherapy I	4	60
PHAT 017	Pharmacy Introduction	3	45
SECOND SEMESTER			
PHAT 018	Pharmacotherapy II	4	60
PHAT 006	Over the Counter Drugs	3	45
PHAT 019	Administration and Law Pharmacy	3	45
PHAT 020	Dosage	3	45
THIRD SEMESTER			
PHAT 021	Pharmaceutical Chemistry	3	45
PHAT 022	Pharmacognosy	3	45
PHAT	Communication and Customer Service	3	45

Detach		Credits
General Education		27
Social Sciences		18
Criminal Justice		18
General Education Courses		
ENGL 101-102	Introductory English Language Course- Basic Level	6
SPAN 101-102	Introductory Basic Spanish Language Course- Basic Level	6
HUMA 101	Western Civilization I and II	3
HIST 253	History of Puerto Rico	3
MATH 101	Basics Mathematics	3
SCIE 111	Integrated Sciences	3
COIS 101	Introduction to Computer	3
Social Science		
PSYC 123	General Psychology	3
PSYC 350	Psychopathology Principles	3
SOCI 203	Principles of Sociology	3
SOSC 225	Contemporary Economic and Political Issues	3
SOSC 103	Introduction to Social Sciences - Survey Course	3
SOSC 303	Statistical Methods Applied to the Social Science (survey)	3
Criminal Justice		
CRIM 107	Introduction to Criminal Justice	3
CRIM 200	Criminal Justice System of Puerto Rico	3
CRIM 300	General Principles of Penal Law	3
CRIM 302	Criminal Procedural Law and Evidence	3
CRIM 301 or CRIM 360	Criminal Legislation in Puerto Rico and other Special Laws or Criminal Investigation	3

CRIM 370 or CRIM 380	Law of Evidence or Criminalistics	3
CRIM 318 or CRIM 350	Police Organization and Management or Correctional System of Puerto Rico	3

Associate Degree in Computer Repair and Network Installations 66 Credits

Detach	Credits
General Education	30
Specialization Courses	36

Associate Degree in Insurance 66 Credits

Detach	Credits
General Education	24
Professional Courses	18
Insurance Courses	24

General Education Courses		
SOSC 103	Introduction to Social Sciences (Compendium)	3
ENGL 101-102 or 103-104	Introductory English Language Course- Basic or Intermediate Level	6
SPAN 101-102 or 103 SPAN 105-106 or 104	Introductory Basic Spanish Language Course-Basic, Intermediate, Advanced Level	6
HIST 253	History of Puerto Rico	3
MATH 102	Introduction to Mathematics	3
SCIE 112	Integrated Science	3

Professional Courses		
MARK 133	Principles of Marketing	3
MANA 125	Business Ethics	3
MARK 237	Selling Principle	3
ECON 123	Introduction to Economy	3
ENMA 101	Introduction to Entrepreneurship	3
MANA 131	Human Relations in Business	3

Insurance Courses		
INSU 201	Introduction to Principles of Insurance	3
INSU 1202	Principles of Health Insurance	3
INSU 203	Property and Contingency Insurance	3
INSU 204	Quality Service for the Consumer of the Insurance Industry	3
INSU 205	Life Insurance Principles	3
INSU 206	Principles of Sureties and Fidelities	3
INSU 207	Group Insurance, Retirement and Accumulation	3
FINA 240	Risk and Insurance	3

General Education Courses		
SOSC 103	Introduction to Social Sciences (Compendium)	3
ENGL 101-102	Introductory English Language Course- Basic Level	6
SPAN 101-102	Introductory Spanish Language Course- Basic Level	6
HIST 253	History of Puerto Rico	3
MATH 111	Intermediate Algebra	3
OFAD 141	Keyboarding	3
COIS 101	Introduction to Computers	3
ETIC 010	Ethical Foundations	3
Specialization Courses		
COIS 215	Introduction to Software Development	3
CRAN 201	Basic of Electronics Circuits	3
CRAN 202	Installation and Computers Repair I	3
CRAN 203	Installation and Computers Repair II	3
CRAN 204	Installation of Operating System-Windows	3
CRAN 205	Structured Cabling	3
CRAN 206	Wireless and Network Communications	3
CRAN 207	Introduction to the Networks (LAN)	3
CRAN 208	Introduction to the Networks (WAN)	3
CRAN 209	Design and Implementation of Data Networks	3
CRAN 210	Design and Implementation of Voice Networks	3
CRAN 211	Convergent Communication Networks	3

Associate Degree in Banking Operations 68 Credits
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Detach	Credits
Liberal Arts Courses	21
Business Administration Courses	14
Core Courses	21
Concentration Courses (to choose)	9
Elective Courses	3

Liberal Arts		
ENGL 101-102	Basic English	6
SPAN 101-102	Basic Spanish	6
SOSC 103	Introduction to Social Sciences	3
HUMA 103	Western Civilization (Compendium)	3
ENGL 350	Conversational English	3

Business Administration		
ENMA 107	Business Mathematics	3
OFAD 141	Keyboarding	3
ACCO 111	Basic Accounting I	4
ACCO 112	Basic Accounting II	4

Core Courses

BANK 101	Bank Administration- Laws and Regulations	3
BANK 115	Administrator I- Teller	3
BANK 116	Administrator II-Teller	3
BANK 111	Customer Service	3
BANK 221	Property Tax and Insurance	3
BANK 331	Processing Mortgage Loans	3
BANK 204	Money and Bank Foundation	3

Concentration Courses (to choose)

BANK 117	Mana Saving and Credit Coop	3
BANK 112	Centralized Operations	3
BANK 211	Credit Administration	3
BANK 301	Investments	3

Electives Courses (3 credits)

**Associate Degree in Architectural Drafting
71 Credits**

Detach		Credits
General Education		18
Concentration Courses		47
Related Courses		6
General Education		
SPAN 101-102	Basic Spanish	6
SOSC 103	Introduction to Social Sciences	3
ENGL 101-102	Basic English	6
MATH 111	Intermediate Algebra	3
Concentration Courses		
DRAF 111-111 L	Introduction to Table Architectural Drafting I and Laboratory	5
DRAF 122-122 L	Introduction to Table Architectural Drafting II and Laboratory	5
DRAF 121-121 L	AUTOCAD I and Laboratory	4
DRAF 232-232 L	Introduction to Table Architectural Drafting III and Laboratory	5
DRAF 231-231 L	AUTOCAD II and Laboratory	4
DRAF 223	Building Construction Methods and Materials	3
DRAF 242-242 L	Introduction to Table Architectural Drafting IV and Laboratory	4
DRAF 241-241 L	AUTOCAD III and Laboratory	4
DRAF 233	Cost Estimating ARPE Regulations	3
ENGL 014	Reading Plans in English	3
MATH 1106	Mathematics for Drafters	4

ART 017 Art Appreciation 3

Related Courses

COSC 113	Computer Applications	3
ETIC 010	Ethical Foundations	3

**Associate Degree in Environmental Quality
65 Credits**

Detach		Credits
General Education		31
Concentration Courses		25
Concentration Electives		6
Electives		3

General Education

SPAN 101-102	Basic Spanish	6
ENGL 101-102	Basic English	6
HUMA 103	Western Civilization (Compendium)	3
SOSC 103	Introduction to Social Sciences (Compendium)	3
MATH 111-112	Intermediate Algebra	6
CHEM 105	Chemistry (Compendium)	4
COSC 111	Computer Literacy	3

Concentration Courses

ENMG 101	Environmental Sciences	3
ENMG 113	Environmental Laws Regulations	3
ENMG 115	Statistics Applied to the Environment	3
ENMG 201	Introduction to Scientific Analysis	3
ENMG 201 L	Introduction to Scientific Analysis Lab.	1
ENMG 203	Water Quality Sampling	3
ENMG 203 L	Water Quality Sampling Lab.	1
ENMG 205	Air Quality Sampling	3
ENMG 205 L	Air Quality Sampling Lab.	1
ENMG 207	Soil Quality Sampling	3
ENMG 207 L	Soil Quality Sampling Lab.	1

Concentration Electives (To choose 6 credits)

ENMG 117	Environmental Planning	3
ENMG 206	Environmental Technical Writing	3
ENMG 208	Environment Emergency Responses	3
ENMG 210	Waste Water Treatment	3
ENMG 212	Solid Waste Management	3

Electives (To choose 3 credits)

Course Descriptions

ACCO 111
Four Credits
Basic Accounting I

The course deals with fundamentals of accounting, analysis and recording business transactions, the accounting cycle and elaboration of financial statements. Includes basic definitions, accounting for cash, accounts receivable and the preparation of a payroll. One quarter, four hours per week.

ACCO 1111
Four Credits
Basic Accounting

The course deals with fundamentals of accounting, analysis and recording business transactions, the accounting cycle and elaboration of financial statements. Includes basic definitions, accounting for cash, accounts receivable and the preparation of a payroll. One quarter, four hours per week.

ACCO 112
Four Credits
Basic Accounting II

The course includes tangible and intangible assets, current liabilities and the payroll system, accounting concepts and principles. Also includes procedures and statement presentation for partnerships and corporations. One semester, four hours weekly.

AIRQ 1101, AIRQ 1101 LAB.
Four Credits
Introduction to Air Quality

This course presents measurements standards that are designed to evaluate all types of contaminants, emissions, meteorological and environmental air quality. Activities will be based on the discussion of methods for detecting contaminants in air, the control of emissions and the regulatory aspects of air pollution. One quarter, four hours per week, and four laboratory hours.

AQUA 1101, AQUA 1101 Lab.
Four Credits
Introductory to Water Resource

This course will introduce students to the water management issues. It discusses the chemical and physical property of water, the hydrological cycle and the fresh stream system. The marine environment will also be discussed. The quality standards will be evaluated and the procedures to monitor water hygiene. One quarter, four hours per week and four laboratory hours.

ART 017
Three Credits
Art Appreciation

The course addresses basic elements of art appreciation in the areas of painting, sculpture and architecture. Diverse works of art will be studied. One quarter, three hours per week.

BANK 101
Three Credits
Bank Administration

This course describes how to administrate commercial activities to achieve specific goals. It also emphasizes the importance of knowing and complying with the laws and regulations that govern the processes and the banking industry in Puerto Rico. One quarter, three hours per week.

BANK 111
Three Credits
Customer Service

The course teaches students about the different kinds of deposit accounts, consumer credit applications, and other bank products and services. Special attention is given to the different kinds of documents necessary for and required by the types of accounts, loans, and services and the legal implications of these documents. One quarter, three hours per week.

BANK 112
Three Credits
Centralized Operations

This course offers knowledge on centralized bank operations and their importance in rendering services to the bank and to clients. Special emphasis is placed on Evidence and Traffic, Checking Accounts, Reimbursements, and Information Processing, as well as other related departments. One quarter, three hours per week.

BANK 115
Three Credits
Administrator -Teller I

This course includes all topics related to the theory for management of cash in register in order to prepare students to work as cashiers and Platform Assistants with customer services. This course is required before taking Bank 116 (Laboratory). One quarter, three hours per week.

BANK 116
Three Credits
Administrator- Teller II

This course offers a realistic hands on experience in which the student can put in practice all the knowledge acquired in Bank 115. The student is immersed in a typical work area for a teller in a simulated bank branch (laboratory). One quarter, three hours per week.

BANK 117
Three Credits
Mana Saving and Credit Coop.

This course gives students ample knowledge on the cooperative movement, its laws and principles, and on how to manage a Savings and Loan Cooperative in Puerto Rico. The relationship between the PR Cooperative Bank and the S&L Cooperatives in Puerto Rico is discussed. The student becomes familiar with the more relevant rules of parliamentary procedures,

the rules of conduct during a Member Assembly. One quarter, three hours per week.

BANK 204
Three Credits
Money and Bank Foundations

This course will give students a general knowledge of topics such as: the nature of money and the history and development of financial institutions. The operational structures of local markets, US markets, and international markets are studied, as well as how they relate to the different world monetary policies. Our local economy will be analyzed from a general perspective and in contrast with the global economy. One quarter, three hours per week.

BANK 211
Three Credits
Credit Administration

This course describes how loan activities are administrated within financial institutions. It discusses the way income is created among the different credit services offered by banks and other credit institutions in Puerto Rico and the United States. In addition, it emphasizes the importance of granting good loans in order to achieve the projected return. One quarter, three hours per week.

BANK 221
Three Credits
Property Tax and Insurance

This course introduces and familiarizes students with the Puerto Rico tax laws that affect and regulate the banking industry and its clients. It includes all regulations, taxes, and warranties that affect banking and bank clients. One quarter, three hours per week.

BANK 301
Three Credits
Inversions

This course offers students general knowledge information on topics such as: investments in commercial banking and personal investments. Emphasis is given to calculating risk, return on investment analysis, negotiable instruments in commercial banking, the stock market and the role played by the Federal Reserve Bank and the Government Development Bank in the investment process in Puerto Rican banking. One quarter, three hours per week.

BANK 331
Three Credits
Processing Mortgage Loans

This course is designed to help students understand in depth the complete cycle for mortgage loans. They learn about the laws that regulate these processes on behalf of the consumer and the banks that grant the loans. One quarter, three hours per week.

BANK 1100
Three Credits
Banking Strategy I

This course discusses the history and evolution of the documents, the basic daily operations to be performed in commercial banks, saving and credit associations, consumer and credit cooperatives, and mortgage banks. One quarter, three hours per week.

BANK 1110
Three Credits
Banking Strategy II

This course includes the knowledge related to banking operations such as banking accountability, internal controls, value investments and horizontal and vertical organization. One quarter, three hours per week.

BANK 1120
Three Credits
Investment Foundations I

Purchase and sales negotiable instruments are discussed in this course. It includes the theory and principles in price savings, investments and money. One quarter, three credits per week.

BANK 1130
Three Credits
Banking Strategy III

The course is a continuance of Banking Strategy 1 and 2. The student will acquire advanced concepts of commercial credit, branch administration, credit, debit, state and federal regulations, collection procedures, commercial loans, and requirements to meet loan analysis, One quarter, three hours per week

BANK 1140
Three Credits
Administrator I-Teller I

The students practice in a laboratory (Bank simulation) with the elements of banking transactions such as: bank accountability, deposits, loan payments, and cash advance, check tasking and account tallies at the end of the day. One quarter, three hours per week.

BANK 1150
Three Credits
Investments Foundations II

This course discusses investments, risks, information sources, liquids and market behavioral diversification, portfolio analysis and interpretation of financial information. One quarter, three hours per week.

BANK 1160
Three Credits
Administrator- Teller II

This course develops skills in speed and accuracy of money counting. The students use equipments such as: computer, calculator, posting machine, and validation seals. One quarter, three hours per week.

BANK 1170
Three Credits
Bank Administration

This course includes the functions of financing institutions such as commercial banking. Emphasizes the management and regulations analysis of banking operations, functions and structure. Includes the policies, objectives and characteristics of banking operations. One quarter, three hours per week.

BIOL 101
Three Credits
Introduction to Biology Science I

Introduction to the fundamental concepts of cell structure and function. Study of basic hierarchical organization from cell to systems with emphasis on the human body and its anatomy and physiology. Introduction to genetics, taxonomy, evolution and ecology. Basic concepts of chemistry and physics related to biological systems are also discussed. Two semesters, two hours per week.

BIOL 102
Three Credits
Introduction to Biology Science II

Introduction to the fundamental concepts of cell structure and function. Study of basic hierarchical organization from cell to systems with emphasis on the human body and its anatomy and physiology. Introduction to genetics, taxonomy, evolution and ecology. Basic concepts of chemistry and physics related to biological systems are also discussed. Two semesters, two hours per week.

BIOL 1105
Three Credits
Microbiology

Designed for nursing students. Discusses fundamental concepts of microbiology, including the latest advances in the area. It covers micro-organisms, their pathology, methods for controlling their growth and immunology.

BIOL 1106
Anatomy and Physiology (Survey Course)
Four Credits

Designed for nursing students. Discusses fundamental concepts of microbiology, including the latest advances in the area. It covers micro-organisms, their pathology, methods for controlling their growth and immunology. One quarter, four hours per week.

CHEM 1105
Four Credits
Environmental Chemistry

A survey of matter, chemical properties, and basic electronic configurations of elements will be discussed. Students will also study aqueous phase reactions and the use of radioisotopes in medicine. Organic functional groups, its structure, nomenclature, and reaction will be studied in relation to major organic molecules such as proteins, carbohydrates and nucleic acids. Practice in Laboratory will compliment the theory in class. One

quarter, four hours per week.

CHEM 105
Four Credits
Chemistry (Compendium)

Survey of the introductory course of chemistry. Includes principles of chemistry and its applications to health systems. Study of measurement, chemical and physical properties, atomic theory, bond theory, nomenclature, mole concept, gases, chemical reactions, solutions, acids and bases, chemical equilibrium, and nuclear chemistry. Survey of biochemical studies including stereochemistry, carbohydrates, proteins lipids, nucleic acids, and their metabolism. Biochemistry of cell membranes and body fluids is also included. One quarter, four hours per week.

COIS 101
Three Credits
Introduction to Computer

This course is a general overview of Computer Information Systems. Introduction to concepts such as: hardware, software, procedures, systems, and human resources. Covers their integration and application to business and other areas in society. Integrates Problem-solving cases and software fundamentals development. One quarter, three hours per week.

COIS 200
Three Credits
Computers in Education

This course emphasizes the use and impact of the computer as an educational aid. It will study its origin, basic concepts and implications in the education field and the educational software impact. One hour per week of laboratory is required. One quarter, three hours per week.

COIS 215
Three Credits
Introduction to Software Development

This course includes the programming skills necessary to create software. It includes also software design and a programming language. One quarter, three hours per week.

COMP 1101
Three Credits
Computer Literacy

Introduction to the basic concept of computer science. The general functions of the Central Processing Unit and the input and output devices are discussed. The students use some of the most popular application programs available in the market, such as electronic spreadsheets, word processors and graphic. One quarter, Three hours per week.

COMP 1110
Three Credits
Operating System

The study of the concepts will underline operation systems and their functions. Includes the analysis of programming control and administration of memory processors, peripherals, files and system. One quarter, three hours per week, including laboratory.

COMP 1120
Three Credits
Programming in Basic

Introduces to the computer programming using basic language. Emphasizes on the fundamentals of structure, development, testing input and output device logics, code testing and the development of applications. One quarter, three hours per week, including laboratory.

COMP 1130
Three Credits
Computer Application –Spread Sheets

In depth study and application of computers spreadsheets, development of worksheets and use of effective techniques in writing formulas. Concepts, principles and practice involved in the creation of graphics and database structure and maintenance. One quarter, three hours per week, including laboratory.

COMP 1131
Three Credits
Programming Logic

Emphasize the techniques of modular program design and development in a structured, language-independent manner. Includes problems analysis and their solution, in such a way that the computer can be directed to follow the problem- solving procedure, pseudo codes, flowcharts, and other diagrams are used to develop the problem involving algorithms with the three basic control structures: sequence, selection, and repetition. One quarter, three lecture hours and three laboratory hours per week.

COMP 1140
Three Credits
Programming in COBOL I

Is an introduction to computer programming in a business environment. Emphasizes on the fundamentals of structured program design, development, testing, implementation and documentation using Commercial programs. The course includes language syntax, date and file structures, and implementing programs for report generation. One quarter, three hours per week, including laboratory.

COMP 1150
Three Credits
Communications and Network

Studies related to technology using communications facilities. Includes methods of transmitting digital data, video voice and graphics. Also includes modems terminals, security and communications network, Internet and electronic mail. One quarter, three hours per week.

COMP 1160
Three Credits
Computer Application-Data Base

Studies the application of Database packages. The course describes the models used to design database

system. Relational models, the earthy relationship model and object oriented model. Create a simple system to create Avery and database. One quarter, three hours per week, including laboratory.

COMP 1200
Three Credits
Development Project

Principles and practice for system development projects. A team approach is used to analyze, design and documentation in a realistic system. Use formal presentation and group dynamics in the solution of information systems problems. One quarter, three hours per week, including laboratory.

COMP 1210
Three Credits
Programming in COBOL II

It is the continuation of Comp. 1140. This course studies break reports, tables, and sequential and random files. One quarter, three hours per week.

COSC 111
Three Credits
Computer Literacy

Introduction to the basic concepts of computer science. The general function of the central processing unit and the input and output devices are discussed. The students use some of the most popular applications programs available in the market, such as electronic spread sheet, word processing, and graphics. One semester, three lecture hours and three laboratory hours per week.

COSC 113
Three Credits
Computer Applications

In-depth study of applications of word processing and spread sheets packages to enhance knowledge acquired in the previous computer basic course. Application of e-mail, merge and functions. Concepts, principles and practices involved in the creation of graphics and databases. Database structures and maintenance. One semester, three lecture hours and three laboratory hours per week.

CRAN 201
Three Credits
Basics of Electronic Circuits

Discussion on concepts and terms related to electricity behavior. Includes AC and DC Principles, passive elements and circuits, assets, equipment testing process, laws for the analysis of theorems and circuits, electric circuit simulation, voltage and related topics. One quarter, three hours per week

CRAN 202
Three Credits
Installation and Computer Repair I

Description of computers parts, electronic devices, power supplies, stabilizers and UPS. It emphasizes on the technical skills and the procedure for computer assembling, finding, repair and color calibration, frequencies and testing of VGA and TRC monitors, and LCD screens. Diagnose and repair of inkjet and Laser printer. One quarter, three hours per week

CRAN 203
Three Credits
Installation and Computer Repair II

Emphasizes on the technical skills and the procedure to configure and install the computer (Basic input, output system). Includes identification and configuration of part, preventive maintenance, diagnose, repair and installation of components of computers hardware such as the motherboard, the processor, ram (random access memory), the video card and the hard disk. One quarter, three hours per week.

CRAN 204
Three Credits
Installation Windows Operating System

Concepts, functions, use and maintenance of windows operating system. Includes the analysis of disk structures, files and directories; installation and configuration of systems versions, locating resources, hard disks optimization, security and other related subjects. One quarter, three hours per week

CRAN 205
Three Credits
Structured Wiring

This course includes the theoretic analysis of the basic standards of communications existent in the network industry. It makes emphasis in the procedures and the tools necessary to do the structured wiring. One quarter, three hours per week

CRAN 206
Three Credits
Wireless and Network Communications

It includes the characteristics and functions of the Enterasys products. Also includes an explanation and illustration of the technology, practice exercises and its application in the laboratory. It gives emphasis to the switches configuration for the different types of network, installation of the VLANs, routers configuration, and the troubleshooter related to the line products. One quarter, three hours per week

CRAN 207
Three Credits
Introduction to the Networks "LAN"

This course studies the concepts, technologies, components and protocols used in local area networks (LAN). Detailed discussion on the protocols for local area networks such as Ethernet (IEEE 802.3) and all their varieties; token ring (IEEE 802.5) and asynchronous transfer mode (ATM). It discusses the reference model bid for system interconnection (OSI). One quarter, three hours per week.

CRAN 208
Three Credits
Introduction to the Networks "WAN"

Study of the concepts, technologies, components and protocols used on wide area networks (wan). The global infrastructure of telecommunications is analyzed and how this support long distance voice and

data broadcast One quarter, three hours per week.

CRAN 209
Three Credits
Network Implementation and Design

The course includes the methods use to analyzed, design and administered computers networks. The students will design a new computer network or at least they will propose an arrangement for the existent network. After that they will organized the installation project. One quarter, three hours per week.

CRAN 210
Three Credits
Voice Network Design and Implementation

The course will discuss the technical standards and legal regulations for the design of voice networks (telephonic system). Also studies the effect of voice networks in business productivity. Finally it discusses the basic components of voice networks such as private branch exchange (pbx), analog and digital base stacks for communication services and the system quality and availability. One quarter, three hours per week.

CRAN 211
Three Credits
Convergent Computer Networks

This course discusses the functional requirements of convergent computer networks including voice, data and video also studies several technologies with the requirements for the configuration of convergent networks. One quarter, three hours per week.

CRIM 015
Three Credits
Evidence

Focus on "rules of evidence" and their application in criminal cases: techniques in preparing and presenting evidence, outlining cases and court testimonies. One quarter, three hours per week.

CRIM 020
Three Credits
Criminal Investigation Techniques

Studies the scientific methods of investigation within a legal framework. Case studies are thoroughly analyzed, besides applying the observation techniques and evaluation of relevant information. Includes methods of locating, obtaining and interpreting information. One quarter, three hours per week.

CRIM 030
Three Credits
Correctional System of Puerto Rico

Presents and discusses the current issues of the conditions in the Puerto Rico correctional system. Evaluates the legal, organizational and operational aspects of the agency. One quarter, three hours per week.

CRIM 035
Three Credits
Case Preparation and Testimony

Development of skills needed for preparing reports and for procedural handling of evidence. Presentation of evidence and testimony is emphasized. One quarter, three hours per week.

CRIM 045
Three Credits
Forensic Science

This course includes the forensic studies related to criminal investigators. Gives special emphasis to investigative clues, and its application to criminology. One quarter, three hours per week.

CRIM 055
Three Credits
Special Criminals Statutes

This course includes the Special Criminal Acts applicable to Puerto Rico. It gives a general scope and application of these ten Special Criminal Acts. One quarter, three hours per week.

CRIM 075
Three Credits
Practice

The application of theory and experience will be practiced in a judicial or correctional institution, giving orientation, supervision and evaluation by personnel of both the institution and the Criminology Program. One quarter, three hours per week.

CRIM 107
Three Credits
Introduction to Criminal Justice

This is an introductory course to the field of criminal justice, with an emphasis on studying the origins development of the schools of thoughts in the field of criminology throughout history. The course will provide ample discussion of the various theories that contributed to the development of the scientific field of criminology. Also the structure, institutions and basic function of Puerto Rico's criminal justice system will be studied. The course provides an opportunity for the study and analysis of crime in our society, identifying its causes and available options. One quarter, three hours per week.

CRIM 300
Three Credits
General Principles of Penal Law

Introductory course to criminal law. The course will rely on Puerto Rico's Penal Code for the study of the nature of crime, its elements, available defenses for the accused, and the sentencing in the penal code. During the course, both crimes against the individual and against property will be covered. One quarter, three hours per week.

CRIM 301
Three Credits
Criminal Legislation in P.R. Special Laws

Study special penal laws that regulate the penal conduct in Puerto Rico. The psychology of juvenile legislation and the study of the law that cover minor offenders. Case study and jurisprudence. One quarter, three hours per week.

CRIM 118
Three Credits
Civil System

This course will guide the students to know the historical process which originated our civil juridical ordinance and its fundamental components such as property rights, family rights, obligations and contracts, successions, damages and mischief. One quarter, three hours per week.

CRIM 302
Three Credits
Criminal/Procedural Law and Evidence

The course provides an opportunity for the analysis of the various procedural laws that regulate the application of criminal law. Also, the course covers the criminal law judicial process and its stage. Finally, the student has an opportunity study the constitutional rights available to the accused thought criminal investigation and judicial process. One quarter, three hours per week.

CRIM 360
Three Credits
Criminal Investigation Techniques

The course emphasizes the study and guidelines of basic criminal investigation techniques, from their origins, through the evolution, to today's technological advance in investigative methods. One quarter, three hours per week.

CRIM 370
Three Credits
Law of Evidence

This course is aimed at the study of the rules of evidence both in civil law and criminal law judicial processing's. The course is designed to develop an understanding of the basic concepts of the rules of evidence. Emphasis will be given to the structure of the evidence and the judicial process, the rule of relevance, rule of exclusion, hearsay rule and its exception, privileges, offer of proof, photographs, writing, recordings and demonstrative and scientific evidence. One quarter, three hours per week.

CRIM 380
Three Credits
Criminalities

Study the origin and development of the forensic sciences basing the study in the different types of evidence utilized by the criminal investigation. Emphasis is made on the importance of preservation and handing of evidence in the judicial process. One quarter, three hours per week.

CRIM 200
Three Credits
Criminal Justice System of Puerto Rico

This course is aimed at the study of the legal, constitutional, and judicial protection and guarantees in accordance with Supreme Court decisions. Emphasis will be given to civil rights, the Bill of Rights, and the origins and development of the Constitution. One quarter, three hours per week.

CRIM 318
Three Credits
Police Organization and Management

Includes the study and analysis of the organizational structure and administrative procedures of the State and Municipal police in Puerto Rico. Its functions, duties, power and relations with the community are also studied. One quarter, three hours per week.

CRIM 350
Three Credits
Principles of the Correctional System in P.R.

Principles of the correction system in Puerto Rico, its philosophy, legal bases, organization and administration of correctional facilities. Included are the penal institution, the community program, the parole board, community rehabilitation, the bureau of evaluation and counseling, program of treatment and assistance for people confined to penal institutions and the penal officers group. One quarter, three hours per week.

CTRE 100
Three Credits
Recreation as a Profession

Overviews of the recreational services and the implications it carries in society. Concepts, principles, philosophy, history of recreational programs, including professional attitudes and perspective will be emphasized. One quarter, three hours per week.

CTRE 101
Three Credits
Legal Aspects of Recreation

The course studies the specific legal issues and laws pertaining to recreation and sports. This includes its origins and regulations of the law in the government of Puerto Rico. Concepts such as risk management legal responsibilities of the participants and of the sports recreational professionals will be studied. One quarter, three hours per week.

CTRE 102
Three Credits
Informatics, Recreation and Sports

The study of informatics as it is applied to the use of computers in the field of recreation and sports. Both theoretical and practical issues of computing in the management of data, electronic mail, and Internet research will be focused. The course will expose students to specialized applications and programs developed for the professional in the field of recreations and sports. One quarter, three hours per

week.

CTRE 103
Three Credits
Scientific Fundamentals in Sports

The study envisions the basic concepts in the sociology and psychology of sports and its application in sports as a social phenomenon. Recreational sports will be focused: its groups, organizations, dynamics and social functions. One quarter, three hours per week.

CTRE 104
Three Credits
Health, Fitness Efficiency and Sports

The study of fundamental concepts on physical efficiency (physical education) and its impact on health issues will be studied. Basic elements of healthy physical conditions as part of the lifestyle of people and the practice of recreational sports as promoters of healthy lifestyles will be discussed and analyzed. The students will develop a systematic program of physical and recreational conditioning. One quarter, three hours per week.

CTRE 105
Three Credits
Recreation Program planning

The study of concepts, principles and models of recreational programs will be discussed. A special focus will be made on life cycle, social tendencies, and the evaluation of recreational and sports programs. One quarter, three hours per week.

CTRE 106
Three Credits
Introduction to Sport Management

The study of basic administrative concepts applied to the field of recreational and sport management, including the basics functions, such as, budgeting, marketing, organizational structures, resources, and equipment. One quarter, three hours per week.

CTRE 107
Three Credits
Evaluating Recreational Programs

The study of fundamental concepts and models of evaluation for recreational and sports programs. One quarter, three hours per week.

CTRE 108
Three Credits
Planning Recreational Programs

The study of basic concepts will deal with the planning and implementation of municipal recreational and sports programs. The process of planning, implementations and evaluating will be examined. One quarter, three hours per week.

CTRE 109
Three Credits
Writing Recreational Reports

The study of Basic concepts of written and oral communication directly related to recreation and sports programs. The course will be geared to prepare the recreational and sports professionals in the elaboration of

written and oral presentations of reports that are used in most government agencies. One quarter, three hours per week.

CTRE 110
Six Credits
Practice of Recreational and Sports Program Administration

Students will be assigned to specific governmental agencies or departments that deal with recreation and sports in order to acquire experience and apply theoretical concepts learned in the classroom. Professionals in the fields of Recreations and Sports administration will supervise the practice. One quarter, six hours per week.

CTRE 111
Three Credits
Fundament and Techniques of Sports

Studies the overview of the field of sport managements. Analyzes of management concepts and their application to sports programs and facilities, employment areas, competencies, and future trends. One quarter, three hours per week.

CTRE 112
Three Credits
Principles of Sports Training

The course analyzes physiological concepts necessary to understand the effects of sports and physical activities on the human body. Includes approaches to improve sport performances and the study in the children, the elderly, and the women in sports. One quarter, three hours per week.

CTRE 113
Three Credits
Teaching and Motor Movement Evaluation

The course analyses the physical education curriculum, its design, teaching methods implementation and evaluation. One quarter, three hours per week.

CTRE 114
Three Credits
First Aid in Sports

The course will study the common accidents, injuries and first aids related to sports, and other physical activities. One quarter, three hours per week.

CTRE 115
Three Credits
Organization and Sport Management

The course pretends to organize and manage sports in a business manner. The course is oriented to train sports specialists to develop sports programs. One quarter, three hours per week.

CTRE 116
Three Credits
Sports Initiation Practice

Students will be assigned to different government agencies and departments as an opportunity to achieve the necessary experience during the

supervised workshops. One quarter, three hours per week.

DRAF 011, DRAF 011 LAB
Five Credits
Introduction to Table Architectural Drafting

This course introduces the students to architectural drafting and basic drawing. It includes identification and the use of drawing instruments. Symbols and definition of vocabulary will be discussed. All work will be done in a traditional drafting table with instruments. One quarter, five hours per week.

DRAF 021, DRAF 021 LAB.
Four Credits
AUTOCAD I

This course introduces students to AUTOCAD graph programs and its basic concepts. Advantages and disadvantage of using computers in blueprint drawings are discussed. One quarter, four hours per week.

DRAF 022, DRAF 022 LAB.
Five Credits
Architectural Drafting

This course introduces the students to represent floor plans, facades, elevations and section of a structure. All work will be done on a traditional drafting table with instruments. The course concludes with a final project that consists of designing a house using the concepts learned in class. One quarter, five hours per week.

DRAF 031, DRAF 031 LAB.
Five Credits
AUTOCAD II

This course continues the sequence teaching of AUTOCAD graphs program. It includes editing and styling of dimension, tolerance, editing with GRIP format. One quarter, five hours per week.

DRAF 032, DRAF 032 LAB.
Five Credits
Architectural Drafting III

This course examines the requirements to create civil, mechanical and electrical drawings. Symbols and terminology used in drafting will be explained. Work will be done on a traditional drafting table with instruments. The course concludes with a final project design in which sanitary, electrical and other details learned in class will be included. One quarter, five hours per week.

DRAF 033
Three Credits
Cost Estimate – ARPE Regulation

This course addresses the fundamentals of cost estimating and ARPE Regulations. The amount of material and its equivalent will be determined as specified on the blueprint, estimating costs through formulas based on area (square feet). One quarter, three hours per week.

DRAF 042, DRAF 042 LAB.
Four Credits
Architectural Drafting IV

This course prepares students in the areas of foundation, location and site blueprints, the reading of topographical

blueprints and other aspects related to surveying with instruments. The class concludes with a final project where the students will prepare blueprints of location and site according to zone codification. One quarter, four hours per week.

DRAF 111, DRAF 111 LAB.
Five Credits
Introduction to Table Architectural Drafting

This course introduces the students to architectural drafting and basic drawing. It includes identification and use of drawing instruments. Symbols and nomenclature will be discussed. All work will be done in a traditional drafting table with instruments. One quarter, five hours per week.

DRAF 121, DRAF 121 LAB.
Four Credits
AUTOCAD I

This course introduces students to AUTOCAD graphs program and its basic concepts. Advantages and disadvantage of using computers to draw blueprints are discussed. One quarter, four hours per week

DRAF 122, DRAF 122 LAB.
Five Credits
Architectural Drafting

This course introduces the students to representative of floor blueprints, facades, elevations and sections of a structure. All work will be done on a traditional drafting table with instruments. The course concludes with a final project that consist of designing a house using the concepts learned in class One quarter, five hours per week.

DRAF 223
Three Credits
Building Construction Methods and Materials

This course introduces students to building methods and selecting materials to build foundations, floors, walls and roofs. Special vocabulary will be discussed. Emphasis will be placed on basic principles used by engineers. One quarter, three hours per week.

DRAF 231, DRAF 231 LAB.
Five Credits
AUTOCAD II

This course continues the sequence teaching of AUTOCAD graphs program. It includes editing and styling of dimension, tolerance, editing with GRIPS format. One quarter, five hours per week.

DRAF 232, DRAF 232 LAB.
Five Credits
Architectural Drafting III

This course examines the requirements to create civil, mechanical and electrical drawings. Symbols and terminology used in drafting will be explained. Works will be done on a traditional drafting table with instruments. The course concludes with a project design in which sanitary, electrical and other details learned in class will be included. One quarter, five hours per week.

DRAF 233
Three Credits
Cost Estimating – ARPE Regulations

This course addresses the fundamentals of cost estimating and ARPE Regulations. The amount of material and its equivalent will be determined as specified on the blueprint, estimating costs through formulas based in areas (square feet). One quarter, three hours per week.

DRAF 241, DRAF 241 LAB.
Four Credits
AUTOCAD III

This course continues the sequence of teaching AUTOCAD graphs program. It includes blocks, external references and isometric measures. One quarter, four hours per week.

DRAF 242, DRAF 242 LAB.
Four Credits
Architectural Drafting IV

This course prepares students in the areas of foundation, location and site blueprints, the reading of topographical blueprints and other themes related to surveying with instruments. The class concludes with a final project where the students will prepare a location and site plan according to zone codifications. One quarter, four hours per week.

ECON 123
Three Credits
Introduction to Economy

Provides the student with theory knowledge and applied basics of economics. The student will learn the essential principles and theories for the micro and macro analysis. Time is devoted to develop the skills needed to identify and solve the problems encountered by the public and private sectors. One quarter, four hours per week.

EDUC 173
Three Credits
Growth and Human Development

Study and considers natural and environmental factors that help to influences emotional stability and social adjustment of children. Apply the principles of psychology to the teaching environment at elementary and secondary levels. One quarter, three hours per week.

EDUC 135
Three Credits
Foundations of Education

It is an analysis of sociological, psychological and philosophical principles and their relation to the teaching and learning process. One quarter, three hours per week.

EDUC 170
Three Credits
Introduction to Preschool Education

Introduces the philosophical, sociological and psychological theories of childhood development. Study the history of early childhood education. Analyses the characteristics of children in preschool programs by the observation and recording their behavior as guidance. One quarter, three hours per week.

EDUC 270
Three Credits
Learning Environment for Preschool Education

Analyses the learning theories during early childhood years. Also studies the application of theories and concepts, instructional activities, exploration of classroom environment, materials and equipment. Identifies the high qualities standards for pre-school teachers. One quarter, three hours per week.

EDUC 300
Three Credits
Preschool Curriculum

Examines an overview of the early childhood (3-4 years), curriculum (material and educational strategies), and evaluates the practical considerations of principles, theories, research, and trends related to preschool education. One quarter, three hours per week.

EDUC 323
Three Credits
Children's Literature

Provide to the future teacher the ability to select the appropriate materials related to children's literature for the elementary-level. Facilitates the presentation of the activities including analysis of stories, poems, biographies, dramas, and other materials to be presented in the elementary school Spanish class. One quarter, three hours per week.

EDUC 324
Three Credits
Preschool Education for Exceptional Children

Skills and techniques will enable future teachers to develop and organize educational experiences for the gifted child at the pre-school level. Emphasis is given to stimulate children's growth in motor development, reasoning, visual perception, social, emotional and cognitive development. One quarter, three hours per week.

EDUC 427
Three Credits
Teaching through games

The course includes variety of indoor and outdoor games, field observations. Study the use of games as a teaching strategy in preschool education. Multidisciplinary concepts and theories of game and their impact in physical, motor, intellectual, affective and creative development of the infant and the preschool child are studied. One quarter, three hours per week.

EDUC 1440
Six Credits
Practice of Pre-School Education

This course offers the opportunity to apply the skills learned in previous classes, especially in the courses related to curriculum and methods for teaching in pre-school level. Besides, it provides the opportunity to work with children under the supervision of an assistant teacher. One quarter.

ENGL 014
Three Credits
Reading Blueprints in English

This course introduces basic reading skills of building blueprints in English. Emphasis is placed on technical vocabulary included in drafting texts and AUTOCAD manuals. One quarter, three hours per week.

ENGL 101
Three Credits
Basic English I

Emphasizes the development of basic written communication and reading skills. Grammar instruction is provide for students who need to improve their proficiency in English. One quarter, three hours per week.

ENGL 102
Three Credits
Basic English II

Emphasizes the development of basic written communication and reading skills. Grammar instruction is provided for students who need to improve their proficiency in English. Two semesters, three lecture hours and one laboratory hour per week.

ENGL 103
Three Credits
Introduction English Language-Intermediate Level-I

A thorough study of intermediate English grammar, leading to the development of basic speaking, listening, reading and writing skills. Two semester, three hours per week.

ENGL 104
Three Credits
Introduction English Language-Intermediate Level-II

A thorough study of intermediate English grammar leading to the development of basic speaking, listening, reading and writing skills. Two semester, three hours per week.

ENGL 350
Three Credits
Conversational English

This course provides practice for the development of oral communication skills to be used in personal and professional settings. One quarter, three hours per week.

ENMA 101
Three Credits
Introduction to Entrepreneurship

This course is designed to provide the student an understanding and overview of the world of Entrepreneurship. They will development analytical skills, being exposed to broad introduction of entrepreneurial career paths. Establishing acquisitions and developing a business. One quarter, three hours per week.

ENMA 107
Three Credits
Business Mathematics

Applying mathematics reasoning to procedures in solving business problems. Some of the techniques demonstrated and practiced will be: making estimates, graphic interpretations, and the use of financial and statistic mathematics. Some other topics include: algebraic and lineal equations with graphics, central tendencies, and the use of the electronic calculator. One quarter, three hours per week.

ENMA 207
Three Credits
Commercial Documents for Business

The student will learn how to create business documents using word processing equipment. They use of high technology equipment will give integrity and image to the organization. One quarter, three hours per week.

ENMA 302
Three Credits
Direction and Business Administration

This course will provide the students a series of concepts, frame of reference, analytical techniques, and management decision-making techniques. Also problems solving techniques will be taught. One quarter, three hours per week.

ENMA 304
Three Credits
Entrepreneur Creation

The complete entrepreneur process will be discussed from the conception of the idea to the creation of the business. Emphasis will be given to the characteristics of the entrepreneur, the opportunity seeking, and to obtain the necessary resource to convert the opportunities into business. Attention is given to the planning phase of the new venture. One quarter, three hours per week.

ENMA 305
Three Credits
Entrepreneurship Financing

The course gives emphasis in the financing the enterprise throughout the different phases of its life cycle. It will analyze of the different financial techniques for the proper selection that will match the economic position of the enterprise. Analysis is made of the working capital required, budgeting, financial terms and conditions, and the financial implications for the decision making process.

ENMA 306
Three Credits
Computer for Entrepreneur

This course teaches how to manage business using the computer as a tool for business administration and the decision making process, and the use of Internet for promoting and expanding the business. One quarter, three hours per week.

ENMA 408
Entrepreneurial Seminar
Three Credits

The knowledge acquired is tested in real business situations. The entrepreneur project is worked independently under the supervision of a professor. One semester, three hours weekly.

ENMG 101
Three Credits
Environmental Sciences

This is an introductory course that will teach the students the general concepts of environmental science. Specific attention will be given during the course to biotic and abiotic factors in the environment, including issues on hydrology, management of natural resources, population dynamics, atmosphere, water and soil pollution and solid waste management. One quarter, three hours per week.

ENMG 113
Three Credits
Environmental Laws Regulation

This course will expose the student to the general aspect of state and federal regulation that applied in Puerto Rico, starting with the environmental legislation that regulates water quality; treatment of used water, air quality and the management of solid waste. The course will also evaluate the roll that environmental legislation assigns to agencies and institutions, including industry and municipalities. One quarter, three hours per week.

ENMG 115
Three Credits
Statistical Applied to the Environment

This course statistics methods will be used for different environmental sciences situations. Computer program will be used to do these statistics analyses. One quarter, three hours per week.

ENMG 117
Three Credits
Environmental Planning

The importance of environmental planning will be the focus of this course. Many current problems are consequences of the lack of planning policies special emphasize will be given to management plans for natural resources, and the education of the ecological and social effects. The plans of natural resources management will be emphasized in the course. One quarter, three hours per week.

ENMG 201, ENMG 201 LAB.
Four Credits
Introduction to Scientific Analysis

This course provides students with the basic tools needed for scientific environmental analysis like, for example; measurement, scientific notation, instrumentation, monitoring and samples of air, soil and water. It will also familiarize the students with the scientific instrumentation and equipment to carry out this analysis. One quarter, three hours per week and three laboratory hours.

ENMG 203, ENMG 203 LAB.
Four Credits
Water Quality Sampling

The course will introduce the issues and problems related to water resources. The biological, chemical and hydrological characteristics of the resources will be analyzed in detail. Additionally, human activities that interfere with water quality will be evaluated. One quarter, three hours per week and three laboratory hours.

ENMG 205, ENMG 205 LAB.
Four Credits
Air Quality Sampling

The course is aimed at providing, the skills applied in the sampling of air and the analysis of data. The different air sampling techniques as well as the handling of the sampling equipment will be discussed. One quarter, three hours per week and three laboratory hours.

ENMG 206
Three Credits
Environmental Technical Writing

The course deals with the application of communication principles to the environmental field. Communication strategies and practices, as well as divulgation and public relation techniques will discuss during the course term. One quarter, three hours per week

ENMG 207, ENMG 207 LAB.
Four Credits
Soil Quality Sampling

The course is aimed at the study of the soil not only as life giving entity, but also as a resource that is used for different human activities. Throughout the course students will evaluate human activities that may impact the soil and will learn how to perform soil sampling and analysis. Additionally, students will learn how to use analytical instruments for detection of pollutants in the soil. One quarter, three hours per week and three laboratory hours.

ENMG 208
Three Credits
Environmental Emergencies Responses

The environmental emergency responses in different environmental media such as water, soil and air will be discussed. Through the use of simulations and real cases the students will be prepared for responding to different emergencies. One quarter, three hours per week

ENMG 210
Three Credits
Waste Water Treatment

The course has to do with technologies, procedures and experiments related to waste water treatment. Additionally participants will study the waste water distribution and collection systems, and will be all to do some troubleshooting exercises in the topic. One quarter, three hours per week

ENMG 212
Three Credits
Solid Waste Management

The course study problems associated with the generation and disposal of solid wastes. It put emphasis in source generation, collection and transportation equipment and disposal systems. Pollution problems associate with soil waste disposal will be analyzed. One quarter, three hours per week.

ENSC 1101
Three Credits
Introduction to Environmental Sciences

This course discusses a series of topics related to the dynamics of organism populations. Emphasis will be given to the current use of the natural resources and the effect of pollution to the ecosystem. Puerto Rico's environmental problems and their possible solution will be evaluated. One quarter, three hours per week.

ENSC 1106
Three Credits
Environmental Education and Communication

This course prepares the students with the fundamentals of technical communications such as reports and proposal writing, using the computer. This course will also examine the features and sources of community environmental messages to the public. One quarter, three hours per week.

ENSC 1201
Three Credits
Environmental Laws and Regulations

This course will provide the students with a perspective of the environmental legal framework and the agencies responsible of implementing those laws and regulations. Emphasis will be given to the laws related to wastewater and air management quality. One quarter, three hours per week.

ENSC 1210
Three Credits
Waste Water Treatment

The course deals with the procedures, technology and test used in the Waste Water Treatment. In addition, the students will be able to study the system of gathered wastewaters. Emphasis will be given to the solution of basic problem of maintenance of the treatment plants. One quarter, three hour per week.

ENSC 1211
Three Credits
Security and Emergency Response

Safety considerations of industrial commercial and manufacturing, facilities, toxicology, explosion hazards, and OSHA standards will be study. One quarter, three hours per week.

ENSC 1221
Three Credits
Environmental Health

Fundamental topics such as environmental health, pollution, environmental balance and environmental health, ozone depletion, sustainability, greenhouse effect,

and overpopulation are discussed. The relationship between technological/scientific achievement and the intervention of humans in the ecosystems will also be discussed. One quarter, three hours per week.

ETIC 010
Three Credits
Ethical Foundations

This course studies the nature of moral philosophy and the principles of ethics and bioethics theories. The study covers since the origins to the present time. Besides, it analyses the implications of modern social problems that depict the ethics principles and development in our society. One quarter, three hours per week.

FINA 240
Three Credits
Risk and Insurance

Types of risks and methods of handling risks by insurance companies. Detailed study of insurable risks, risk management, different types of underwriters, factors to be considered in the selection of an insurance company, functions and organization of the insurance companies, and legal principles applicable to the insurance contract. One semester, three hours weekly.

FITI 1010
Three Credits
Phytoremediation

Emphasizes on identification of common plagues and diseases in vegetables and the use of IMP techniques. The course will also study the effective use of plaguicides, their economic importance and laws and regulations that govern their use. The use of the biologic control of plagues is also studied. One quarter, three hour per week.

FYIS 101
Three Credits
First Year Induction Seminar

The First Year Induction Seminar foster the development of the knowledge, skills, techniques and attitudes needed to make a successful transition to college. One semester, three hours per week.

HIST 253
Three Credits
History of Puerto Rico (Compendium)

Study and analysis of Puerto Rico's historical development from its beginnings to the present. Emphasis is given to the social, political, economic, and cultural development of the island. One semester, three hours per week.

HUMA 101
Three Credits
Western Civilization I

The course is critical study of the evolution of the humanity from its beginnings to the development of the cities and the urban life. Emphasis in the old cities in the world-wide level. It promotes the understanding

of the moral social and cultural values in general at diverse times. Two semesters, three hours per week.

HUMA 102
Three Credits
Western Civilization II

The course is a critical study for the evolution of the humanity from the development of the cities and the urban life. Emphasis in the events of greater cultural repercussions for the humanity. It promotes the understanding of the moral, social and cultural values of the societies in the world-wide context. Two semesters, three hours per week.

HUMA 103
Three Credits
Western Civilization (Compendium)
Emphasis is given to the major accomplishments of western civilization. One semester, three hours per week.

INSU 201
Three Credits
Introduction to Insurance Principles

The course introduces the function of insurances and the importance in our society. Include state regulations types of insurances and organizations. Study the property insurance, contingency, life, health, and incapacity insurance. Identify the most common coverage of insurances like importance aspects of regulations, social security, subscription, rate, and marketing of the product. One semester, three hours per week.

INSU 203
Three Credits
Property Insurance and Contingency

The course studies the development of property and casualty insurance from the historic, economic and social perspectives. It discusses the risks covered by property insurance and damages causes by accidents in commercial establishments. Emphasis is given to the protection that these products cover and the principles that serves as their basis. Some commercial insurance coverage is examined. One semester, three hours per week.

INSU 204
Three Credits
Quality Service for the Consumer of the Insurance Industry

It emphasizes the changes during the past decades of consumer/client service concepts. Studies customer services process, the culture of services, and the strategies for medical and quality service. It also the development of a labor force focused on an exceptional customer service and how to deal with and keep costumers. One quarter, three hours per week.

INSU 205
Three Credits
Life Insurance Principles

Studies life insurances and how it is applied in occasion of economic loss due to the premature death of the policyholder it includes the study of life insurance purpose, actual plans, and kinds of risk, nature and uses of this insurance, insurances rates, primes, reserves and pertinent regulation. One quarter, three hours per week.

INSU 206
Three Credits
Principles of Sureties and Fidelities

This course studies the principles that apply to sureties and fidelities, as well as the bonds that back them and their application and importance as a mechanism for providing economic security when an economic loss occurs. It includes the study of the purpose of this and others types of coverage, and plans in existence, the kinds of risks, the nature and the use of this insurance, rates premiums, reserves, and the pertinent rules and regulations. One quarter, three hours per week.

INSU 207
Three Credits
Group Insurance, Retirement and Accumulation

This course studies the principles that apply to group or collective insurance, and retirement and accumulation accounts, and their application and importance as mechanisms for providing economic security. It includes the study of the purpose for group or collective insurance, insurance rates, premiums, reserves, and the pertinent rules and regulations. One quarter, three hours per week

INSU 1202
Three Credits
Life and Health Insurance

Study the application of insurance techniques for protection economics lost in case of disabilities death and old age. Include uses of life insurances, rates, insurance premium and reserves. Study regulations, covers, lost of income and operation of agencies. Study the life insurance like collateral. One quarter, three hours per week.

MANA 101
Three Credits
Introduction to Business

Includes the different forms for business organization and management in the search for profits. It includes an introduction to business operations, management, production, marketing, human and labor relations, finance and accounting. One quarter, three hours per week.

MANA 125
Three Credits
Business Ethics

Concepts related to moral aspects of human behavior within the whole social system, and particularly in business settings or in groups where the individual operates. One semester, three hours weekly.

MANA 131
Three Credits
Human Relations in Business

Concepts dealing with the interaction and interpersonal relations of individuals and groups within business organizations. It includes an analysis of leadership and group behavior. One semester, three hours weekly.

MARK 133
Three Credits
Principles of Marketing

Presents the basic concepts and applications most relevant to the marketing decision-making process. Focuses on the universal concerns of managers who are responsible for marketing decisions. Includes the consumer's buying decisions process and types of consumer behavior as related to the basic marketing philosophies regarding products, price, promotion and distribution. One semester, three hours weekly.

MARK 135
Three Credits
Retail Sales

Fundamentals of retail management: organization, store location, design and layout, aspects of buying and selling, operating activities, merchandising polices, inventory control systems, and opportunities. One semester, three hours weekly.

MARK 237
Three Credits
Selling Principles

Develops the principles of the selling approach: the salesperson's functions, responsibilities and sales techniques. Preparation of sales manuals, product portfolios, demonstrations, and selling strategies. It also includes the social implications of the selling process. One semester, three hours weekly.

MATH 101
Arithmetic and Its Applications
Three Credits

This course offers the opportunity to develop necessary skills in working with numbers and basic mathematical computations with whole numbers, decimals and fractions, introduction to statistics and geometry. Opportunities are provided to apply the skills learned to actual life situations. One semester, three lecture hours per week.

MATH 102
Three Credits
Introduction to Mathematics

This course offers the opportunity to develop the basic skills necessary to perform operations with real numbers, operations with polynomial and solution set of linear equations with one variable and applications. It is supported by one laboratory hour per week. One semester, four lecture hours per week.

MATH 103
Three Credits
Basic Mathematics for Teachers I

Study of the fundamental concepts in general mathematics: operation with whole numbers, decimals and fractions percent, measurements, and whole applications. One quarter, three hours per week.

MATH 111
Three Credits
Intermediate Algebra I

Real number system, operation with polynomials; equation and inequalities of first degree in one unknown and its application; special products, factoring, and rational expressions. One quarter, three hours per week.

MATH 112
Intermediate Algebra II
Three Credits

Factoring, rational expressions, rational exponents, radicals and equations, complex numbers, quadratic equations and its applications. One semester, three lecture hours per week.

Prerequisite: Placement Test or MATH 111

MATH 1101
Three Credits
Basic Mathematics

This course offers the opportunity to develop necessary skills in working with numbers and basic mathematical computations with whole numbers, decimals and fractions, introduction to statistics and geometry. Opportunities are provided to apply the skills learned to actual life situations. One semester, three hours per week.

MATH 1106
Four Credits
Mathematics for Drafters

The course will introduce basic concepts in mathematics used in drafting. It includes basic operations, fractions, decimals, ratios and proportions, units and their conversion, and basic concepts in geometry and trigonometry. One quarter, four hours per week.

NURS 1201
Three Credits
Medical Terminology

This course introduces the students to the specialized language of medicine. Includes word roots, prefixes and parts of speech. Laboratory tests and diagnosis are also components of this course. Word elements related to Anatomy and Physiology integrate the components of medical terminology related to Body System. One quarter, three hours per week.

OFAD 1008
Three Credits
Basic Billing

This course will give students the opportunity to become familiar with the fundamental principles in medical plans. Assembling analysis and internal controls for efficient management of records, classification and registration system. One quarter, three hours per week.

OFAD 141
Three Credits
Keyboarding

Special emphasis will be given to correct typewriting techniques and proper use of the keyboard. Development of speed and accuracy training includes: personal and business letters, tabulations and reports. One semester, three hours weekly.

OFAD 1022
Three Credits
Medical Codification

In this course the students is exposed to the process of classification of diseases and ambulatory procedures using numeric coding. One quarter, three hours per week.

OFAD 1024
Three Credits
Electronic Billing

Students are introduced to the dynamic of medical billing. The course will provide the necessary skills in completing HCFA forms and master the insurance claims forms cycle. Practical information will be given on the features that are common to all insurance carriers and features specific to Medicare, Blue Cross-Value Shield, and others. One quarter, three hours per week.

OFAD 1026
Three Credits
Audit Health Care Billing

The course is designed for students to check and verify the bills, their most common errors and to determine the reason for refusal. The course covers the audit process as the mechanism for measuring income received, to be received and losses that occur in the billing process.

OFAD 1027
Three Credits
Administrative Procedures in Medical Offices

This course is designed to help students in the development of those skills needed for the administrative procedures in medical offices. Through this course the student will get acquainted with all aspects of the administrative skills of the medical assisting profession, from the more general to the specific level. It covers administrative concepts, skills and tasks that are central to the medical assisting field.

OFAD 1028
Three Credits
Theory and Practice in Medical Facilities

The course offers the student the opportunity to apply the knowledge acquired in a real working environment. The students will work in a practice center four (4) days in the week, and will be evaluated by the assigned supervisor. Once in the week the student will meet with the practice coordinator at the institution, in order to discuss his/her work experience and to identify any areas for improvement.

OFAD 1100
Four Credits
Keyboarding

Special emphasis is given to keyboarding development of speed and accuracy learning to create documents in the Window programs. The training includes creating documents, with their respective formats. One quarter, four hours a week.

OFAD 1110
Four Credits
Document Production I

Continues with the development and improvement of keyboarding skills and techniques. Emphasizes on business correspondence, memos simple and two-page reports, simple and complex tables, and employment's documents. One quarter, four hours per week.

OFAD 1115
Four Credits
Communication and Document Writing

Continues development of speed and accuracy. Learning to produce complex document as format cell to create and key tables, long reports with endnotes, administrative and employment communication. reviewing the formats and word processing functions appropriate for formatting memos and letter are introduced. One quarter, four hours per week

OFAD 1125
Three Credits
Technical Reports

The course introduces the basic skills in writing reports and comprehensive evaluations of medical terms. Emphasizes in developing written skills with precision and accuracy. One quarter, three hours per week.

PNUR 101
Four Credits
Nursing Process and Basic Skills

Initiates the student in their associate nurse roles and competencies as a member of the health team. The mission program outcomes and conceptual framework of the ADN is presented and described. Covers the general aspects of the historical evolution, as well as, values and ethical-legal aspects. Emphasis in the B. Neuman concepts of system as client, environment, continuous wellness-illness, stress; communication skills; health promotion; and the levels of prevention is provided.

The student is initiated in the nursing process and basic nursing skills of body mechanics, aseptic techniques and medication preparation and administration in a variety of structured scenarios. One quarter, four theory hours per week, and six clinical laboratory hours per week.

PNUR 102
Three Credits
Nursing Process applied in the care of the Mother Neonate and Family

Classroom instruction and clinical experiences in the care of the mother, neonate and family through pregnancy, labor, delivery, and neonate stage is provided. Health promotion and primary prevention are emphasized in the care of the childbearing family, including the high risk mother. Roles and competencies of the associate nurse are strengthened throughout the course. One quarter, three theory hours per week, and six clinical laboratory hours per week.

PNUR 103
Three Credits
Nursing Process Applied to the child, adolescent and family

Provides students with the concepts of client as a system, environmental stressors, wellness and illness health promotion of the child from infancy through adolescence. Develops professional roles and competencies technical and communication skills to work with children and adolescents. The nursing process is used to promote the wellness of children and adolescents with alterations in the physiological, psychological, sociocultural, developmental, and spiritual variables. One quarter, three theory hours per week, and six clinical laboratory hours per week.

PNUR 104
Three Credits
Nursing Process applied to the adult and elderly

The course is based in the principals of care for individuals, the family and community in the different stages of growth and development, emphasizing the basic needs of the adult and the elderly. Philological and pathological changes in the different systems are discuss in a holistic manners. The course applies the necessary skills that the students should master, using the nursing process for the interaction of the adult and the elder with their family and community. One quarter, three theory hours per week, and six clinical laboratory hours per week.

PNUR 105
Two Credits
Nursing Process applied to Health with mental problems

Classroom instruction and clinical experiences initiate students in the care of the client system with mental health and psychiatric stressors/problems. A variety of prevention interventions are implemented, including the use of self, therapeutic relationship, individual and group therapy, and crisis intervention. Generalist nurse roles and competencies are intergraded in the course for further development. Clinical sites include inpatient and outpatient psychiatric unit, community mental health centers, and clients' homes. One quarter, two theory hours per week, and six clinical laboratory hours per week.

PNUR 106
Two Credits
Nursing Process Applies to the Community Health

A community based course with emphasis on providing holistic care to the client in primary, secondary and tertiary levels of prevention throughout the life cycle. Applies sociocultural elements in the delivery of health care at all levels of health promotion. The principles of epidemiology are applied to the client family. Vital statistics are utilized to provide specific health intervention of disease prevention, and environmental protection in the concept of globalization. One quarter, two theory hours per week, and six clinical laboratory hours per week.

PNUR 107
Two Credits
Seminars Practice Nursing

Reviews and integrates the scientific nursing knowledge with emphasis on common health care alterations in the disciplines of: medical, surgical, mental health, pediatric, community health, maternal-neonatal and leadership nursing. Provides strategies and context for students and nurses to be prepared for state board examination, and to improve their outcomes.

PHAT 002
Four Credits
Pharmaceuticals Calculus

This course discusses the format and content of prescriptions and medical orders. It also covers abbreviations, acronyms and symbols used by medical doctors in orders for the students to read, analyze and evaluate such documents during the exercise of their functions as pharmacy technicians. It discusses the International system of units, the common System Apothecaries and the System Avoirdupois, and equivalences that are utilized for the conversion among these. Basic mathematics operations are covered and their application in the solution of quantitative problems that are part of the professional functions of the community pharmacy, as well as in the institutional and industrial areas. One quarter, four hours per week.

PHAT 006
Three Credits
Over the Counter Drugs

This course discusses those drugs without doctor's prescription (over the counter drugs) used in the prevention and treatment of the most common conditions. It also discusses the use of equipment, devices and common accessories available for sale in the community pharmacy that are used for testing or monitoring some conditions or common medical treatments. It also includes a section on homeopathy due to the increasing interest on this field on recent years. One quarter, three hours per week.

PHAT 016
Four Credits
Pharmacotherapy I

Fundamental concepts of Sciences focused on the characteristics of matter, the cell, the introduction to Human Anatomy and Physiology. Study of different systems and organs of human body from the standpoint of structural and functional. Presents fundamental concepts of structure and function of human body, conditions and treatments integumentary system, musculoskeletal and nervous. Emphasis on the treatment of conditions affecting various body systems and the most commonly used drugs belonging to different categories based on their clinical application. Including contraindications, precautions, warnings, interactions, pharmacokinetics, pharmacodynamics, dosage and side effects of drugs. One quarter, four hours per week.

PHAT 017
Three Credits
Pharmacy Introduction

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. One quarter, three hours per week.

PHAT 018
Four Credits
Pharmacotherapy II

Fundamental concepts of Sciences focused on the characteristics of matter, the cell, the introduction to Human Anatomy and Physiology. Study of different systems and organs of human body from the standpoint of structural and functional. Presents fundamental concepts of structure and function of human body, the conditions and treatment of the endocrine, circulatory, respiratory, digestive, urinary and reproductive. Emphasis in the treatment of conditions affecting various body systems and greater use drugs belonging to different categories based on their clinical application. Including contraindications, precautions, warnings, interactions, pharmacokinetics, pharmacodynamics, dosage and adverse effects of drug. One quarter, four hours per week.

PHAT 019
Three Credits
Administration and Law Pharmacy

Study of state and federal laws governing research, development, manufacturing, packaging, marketing, sale and distribution of drugs and medical devices. Emphasis on the laws governing the exercise of the profession of pharmacy and the Pharmacy Technicians. Includes procedures for the physical organization of a pharmacy; requirements, equipment, licenses and permits. The process of purchase, receipt and collation of goods in and out of the prescription. One quarter, three hours per week.

PHAT 020
Three Credits
Dosage

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. One quarter, three hours per week.

PHAT 021
Three Credits
Pharmaceutical Chemistry

Study of basic concepts of composition, structure, properties and behavior of matter. Emphasis on the theoretical aspects of inorganic chemistry and organic chemistry that are helpful for understanding body processes and substances of biological and pharmaceutical importance with which it interacts in daily life. One quarter, three hours per week.

PHAT 022
Three Credits
Pharmacognosy

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. One quarter, three hours per week.

PHAT 023
Three Credits
Communication and Customer Service
Pharmacist

Presents the basics of effective communication both verbally and written, as well as the correct way to establish a cordial relationship between the Pharmacy Technician and patient, as with their colleagues. Acquaints students with aspects of self-esteem, personality, relationships, job search and interview. One quarter, three hours per week.

PHAT 024
Three Credits
Pharmacy Practice Laboratory

Case Study of the Pharmacy Technician functions related to the delivery of drugs. Development of skills in the use and handling of equipment and books required by law. Analysis of the prescription for release from the interpretation, product selection, extemporaneous preparations, labeling and packaging. It includes the responsibilities of the Pharmacy Technician in a 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 medicament. One quarter, three hours per week.

PHAT 025
Six Credits
Internship I

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 90 hours per theory and 500 hours for practice.

PHAT 026
Six Credits
Internship II

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 90 hours per theory and 500 hours for practice 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.

POSC 085
Three Credits
Civil Rights of Puerto Rico

The course emphasizes the study of the historical evaluation of the civil rights in Puerto Rico with respect to the legal subsystem fundamentals and rights of the family, succession, property, obligation, Cons tracts and torts Law. One quarter, three hours per week.

PSYC 005
Three Credits
Human Relations

Emphasizes the dynamics of human behavior and techniques for effective interpersonal relations. Human activity and mechanism for personal and social adjustment are analyzed in order to achieve self-understanding of others. One quarter, three hours per week.

PSYC 121
Three Credits
Psychology I

Introduction to the basic areas of general psychology. Theories, concepts and methods used in psychological studies of individual and social behavior. Attention to the psychological elements of human growth and development two semester, three hours per week.

PSYC 123
Three Credits
General Psychology Survey

Survey course in general psychology. Study of basic principles, concepts and theories of individual and theories of individual and social behavior. One semester three hours per week.

PSYC 350
Three Credits
Psychopathology Principles

Pathological reactions in the feeble-minded, neurotics and psychotics. Discussion of research methods and theories of abnormal conduct. Visits to local institutions to observe clinical cases. Study of the D.S.M. V(R). One semester, three hours per week.

PUAD 015
Three Credits
Communications & Documents Writing

Studies the different levels of communications use within governmental agencies and the different techniques in report writing. They will learn about the different types of official documents and develop the necessary skills to produce them. One quarter, three hours per week.

SCIE 111
Integrated Sciences
Three Credits

This course integrates concepts from the different areas of sciences and offers the students the opportunity to get acquainted with them. It includes the study of the nature of sciences, the scientific method, the relationship between science and technology, matter and energy. The origin and evolution of live organisms and the conservation, nutrition, health and interactions between these and the environment will also be studied. One semester, three lecture hours per week.

SOCI 025
Three Credits
Social Deviation

A study of the theories that try to explain the origin of social deviation, the role of socio-cultural values and the rules in the definition of deviated behavior and the different types of deviation. One quarter, three hours per week.

SOCI 201
Three Credits
Social Principles I

Study of the human in a socio-cultural context. Emphasis is given to the use of the scientific method in the study of society and the study of social theories. Study of social stratification and institutions such as family, religion, education, economy and politics. Analysis of contemporary social problems. Two semesters, three hours per week.

SOCI 203
Three Credits
Social Principles (Compendium)

Survey course on principles of sociology. Study of the theories of groups, institutions and society. Analysis of social organization and social problems. One semester, three hours per week.

SOSC 020
Three Credits
Social Research Techniques

Study the Research methods and techniques for the Social Sciences field. One quarter, three hours per week.

SOSC 101
Three Credits
Introductory to the Social Science I

General principles of the sciences and the fundamentals of the various disciplines: anthropology, sociology, psychology, economics, and political science. Analyze of social problems in the contemporary world. One quarter, three hours per week.

SOSC 102
Three Credits
Introduction to Social Science II

General principles of the social sciences and the fundamentals of the various disciplines: anthropology, sociology, psychology, economics and political science. Analysis of social problems in the contemporary world. Two semester, three hours per week.

SOSC 103
Three Credits
Introduction to Social Science – Survey Course

Survey course on general principles and fundamentals for the social science disciplines: anthropology, sociology, psychology, economics and political science. Analysis of social problems. One quarter, three hours per week.

SOSC 225
Three Credits
Contemporary Economics and Politics Issues

Interdisciplinary approach to the interrelation of social organizations and political and economic systems in the contemporary world. Study of social, political and economic developments. Analysis of selected events and current issues. One semester, three hours per week.

SOSC 303
Three Credits
Applied Statistics for Social Science (Survey)

Survey course on descriptive and inferential statistical techniques and reasoning. Elements of statistical and reasoning and mechanics involved in the computation of statistical measures in social sciences problems. Emphasis on when why and how to use a specific technique in a research process. One semester, three hours per week.

SPAN 101
Three Credits
Basic Spanish I

Studies the history and evolution of the Spanish language. Practice the grammatical structures, vocabulary enrichment, and the reading and writing skills. One quarter, three hours per week.

SPAN 102
Three Credits
Basic Spanish II

The history and evolution of the Spanish language development of reading and writing skills. Vocabulary enrichment. Analysis of basic Spanish grammatical structures, supplementary readings. Two semesters, three lecture hours and one laboratory hour per week

SPAN 103
Three Credits
Introductory Spanish Language – Intermediate Level- I

Introduction to linguistics. Studies the historical evolution of the Spanish language in Puerto Rico. Focusing in grammar review, vocabulary enrichment and written communication skills. Emphasizes reading through selections of Latin American Literature. One quarter, three hours per week.

SPAN 104
Three Credits
Introductory Spanish Language – Intermediate Level- II

Introduction to linguistics. The historical evolution of the Spanish language in Puerto Rico. Grammar review, vocabulary enrichment and written communication. Latin American literature. Two semesters, three hours per week.

SPAN 105
Three Credits
First Year Advanced Spanish I
Written communication. Readings of masterpieces of Hispanic literature. Emphasis on techniques of literary criticism and research. Two semesters, three hours per week.

SPAN 106
Three Credits
First Year Advanced Spanish II

Written communication. Reading of masterpieces of Hispanic literature. Emphasis on techniques of literary criticism and research. Two semesters, three hours per week.

STAT 1101
Three Credits
Introduction to Statistics

Studies the central tendency and dispersion measurement statistics, sampling methods, probability theory, binominal distributing, and normal density probability function. One quarter, three hours per week.

STDE 100
Three Credits
Student Development

Student development leading to opportunities for personal, academic and vocational success. Analysis of the socialization and educational processes conducive to an effective adjustment to university life. Development of critical thought, basic skills, and techniques for learning. Transition from the high school social studies curriculum to the social sciences at the university level. One semester, three hours per week.

STRE 001
No Credits
Fitness Evaluation Seminar

The seminars pretended, have the goal of developing tools of execution needs by this technical professional needs to initiate programs of recreation and sports. The objective of the seminars is to expose the students to real experience related to the development of sports trainings, the education knowledge and referee arbitration sports. The seminars have as an objective to develop basic technical competitions of the sport they are examining

STRE 002
No Credits
Weight Lifting Seminar

The seminars presented, have the goal of developing tools of execution needs by this technical professional needs to initiate programs of recreation and sports. The objective of the seminars is to expose the students to real experiences related to the development of sports trainings, the education knowledge and referee arbitration sports. The seminars have as an objective to develop basic technical competitions of the sport they are examining.

STRE 003
No Credits
Strategy Teaching Physical Educ. Seminar

The seminars presented have the goal of developing tools of execution needs by this technical professional to initiate programs of recreation and sports. The objective of the seminars is to expose the students to real experience related to development of sport trainings, the education knowledge and referee arbitration sports. The seminars have as an objective to develop basic technical competitions of the sport they are examining.

STRE 004
No Credits
Children Training Seminar

The seminars presented have the goal of developing tools of execution needs by technical professional needs to initiate programs of recreation and sports. The objective of the seminars is to expose the students to real experience related to the development of sport trainings the education knowledge and referee arbitration sports. The seminars have as an objective to develop basic technical competitions of the sport they are examining.

STRE 005
No Credits
Athletes Referee Seminar

The seminars presented have the goal of developing tools of execution needs by this technical professional to initiate programs of recreation and sports. The objective of the seminars is to expose the students to real experiences related to development of sport trainings the education knowledge and referee arbitration sports the seminars have as an objective to develop basic technical competitions of the sport they are examining.

STRE 006
No Credits
Volleyball Referee Seminar

The seminars presented have the goal of developing tools of execution needs by this technical professional to initiates programs of recreation and sports. The objective of the seminars is to expose the students to real experiences related to the development of sports trainings, the education knowledge and referee arbitration sports. The seminars have as an objective to develop basic technical competitions of the sport they're examining

STRE 007
No Credits
Basketball Referee Seminar

The seminars presented have the goal of developing tools of execution needs by this technical professional to initiate programs of recreation and sports. The objective of the seminars is to expose the students real experiences related to the development of sports trainings, the education knowledge and referee arbitration sports. The seminars have as an objective to develop basic technical competitions of the sport they're examining

STRE 008
No Credits
Boxing Referee Seminar

The seminars presented have the goal of developing tools of execution needs by this technical professional to initiate programs of recreation and sports. The objective of the seminars is to expose the students to real experiences related to the development of sports training, the education knowledge and referee arbitration sports. The seminars have as an objective to develop basic technical competitions of the sport they're examining

STRE 009
No Credits
Football Referee Seminar

The seminars presented have the goal of developing tools of execution needs by this technical professional to initiate programs of recreation and sports. The objective of the seminars is to expose the students to real experiences related to the development of sports trainings the education knowledge and referee arbitration sports. The seminars have as an objective to develop basic technical competitions of the sport they're examining.

STRE 010
No Credits
Judo Referee Seminar

The seminars presented have the goal of developing tools of execution needs by this technical professional to initiate programs of recreation and sports. The objective of the seminars is to expose the students to real experiences related to the development of sports trainings, the education knowledge and referee arbitration sports. The seminars have as an objective to develop basic technical competitions of the sport they're examining.

TEHI 1010
Three Credits
Introduction to Hydroponics Systems Planting

This course introduces the basic concepts and principles of traditional cropping versus hydroponics systems. Various hydroponics systems and techniques for farming vegetables are discussed. One quarter, three hours per week.

TEHI 1011
Three Credits
Nutrition in the Hydro System

Analyzed and effective handing of the nutritive solutions. To identify deficiencies of nutrition in the vegetable weave and to determine the requirements of nutrition of the plants. One quarter, three hours per week.

TEHI 1112
Three Credits
Commercial Production in Hydroponics

Discussion based on principles to establish hydroponics commercial farming vegetables such as, lettuce, tomatoes, and pepper, among others. One quarter, three hours per week.

TEHI 1113
Three Credits
Hydroponics Systems Design

Presentation and analysis of some farming designs used in hydroponics systems. The students will be able to design their own system, taking in consideration the vegetables to be cultivated. One quarter, three hours per week.

TEHI 1114
Three Credits
Phytoremediation

Emphasizes on identification of common plagues and diseases in vegetables and the use of IMP techniques. The course will also study the effective use of plaguicides, their economic importance and laws and regulations that govern their use. The use of biologic control of plagues is also studied. One quarter, three hour per week.

TEHI 1115
Three Credits
Appropriate Technology in Hydroponics

Studies the testing process using innovative technology for hydroponics fields. Emphasis will be given to "photovoltaic" energy use. One quarter, three hours per week.

WAST 1101
Three Credits
Introduction to Waste Managing I

This course discusses the solid waste problem through the world and Puerto Rico. Emphasis will be given to the environmental, social and economic aspects of solid waste managing. It will also analyze the source composition, collection procedures, equipment, and final disposal of solid and hazardous waste. The course will analyze reduction, recycling opportunities. One quarter, three hours per week.