

Catalog



UPR-Ponce 2007-2010



CATALOGUE 2007-2010



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NOTE

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The University of Puerto Rico in Ponce is accredited by the Middle States Commission on Higher Education, 3624 Market Street, Philadelphia, PA 19104 (1-267-284-5000). This agency is recognized by the Department of Education of the United States and by the Higher Education Accreditation Council.

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GENERAL INFORMATION

HISTORICAL BACKGROUND

The University of Puerto Rico was established in 1903. Its historical antecedents are the Santo Tomás de Aquinos General Studies University founded in San Juan by the Order of the Dominicans in 1532, the San Ildefonso Seminar, and the Higher Education Teaching Institution of Puerto Rico, established in the year 1888, sponsored by the Puerto Rican Athenaeum. It began as a school for public school teacher preparation which was settled in Fajardo in the year 1900 and was relocated to Río Piedras in the year 1902. In the year 1903, this school was incorporated by means of law as the University of Puerto Rico. At that moment, it began its operations with 154 students and has gradually grown until becoming a multi-campus system.

At the present time, the University of Puerto Rico has eleven units located through the whole Island. These are: Río Piedras, Mayagüez, Medical Sciences, Ponce, Cayey, Humacao, Arecibo, Bayamón, Aguadilla, Carolina, and Utuado. At the moment, it serves a population of more than 70,000 students.

The University of Puerto Rico in Ponce was originally inaugurated with the name of Regional College of Ponce in August 23, 1970 by virtue of the 1966 University Law and in consonance with Law 75 of June 19, 1961. Its initial faculty was of 24 professors and 361 students, coming from the different municipalities of the Southern Region of Puerto Rico. The curricular components included Accounting, Computer Sciences, Architectural Delineation, Business Administration, Industrial Management, Refrigeration and Air Conditioning, Civil Engineering Technology, Physical Therapy, and Occupational Therapy technical courses, and general education courses corresponding to the first years of a Bachelor's Degree in Arts or Sciences. In the years 1972 and 1976, courses corresponding to the Associate Degrees in Secretary Sciences and Automotive Technology were respectively added. In the year 1973, the Associate Degree in Arts and Sciences began to be granted to Transfer students.

In 1982, by means of Certification Number 170, Series 1981-82, of the Council on Higher Education, the Unit's name is modified to Ponce Technological University College (PTUC) and the Bachelor's degrees in Business Administration and Secretarial Sciences are incorporated to its academic offer. During the year 1985, Bachelor degrees in Arts in Elementary Education and Computer Science Technology, with specialization in Computerized Information Systems, began to be offered.

In August of 1992, the Honors Study Program for outstanding students began. The University Night School Program for Adults (UNA) was launched in 1993. That same year the Bachelor's degree Program in Athletic Therapy began to be offered.

In 1998, the Bachelor's degrees in Forensic Psychology, Psychology and Mental Health were added to the Unit's academic offer. In that same year, Certification Number 151, Series 1997-98, of the Board of Trustees grants PTUC autonomy effective July 1, 1998. This modifies the Unit's name to University College of Ponce. This autonomy unites the

Unit from the Regional College Administration, providing for the creation of the Academic Senate and the Administrative Board, bodies which offer the university community participation in the decision making process.

In the year 2001, the Board of Trustees approves the establishment of the Bachelor's degree program in Natural Sciences with concentrations in Biomedicine and Biology, and sub-concentrations in Biodiversity Evaluation, Biotechnology, and Marine Coastal Environment Evaluation.

The evolution of the Unit's infrastructure has been gradual. Originally the classrooms and Biology, Chemistry, and Physics laboratories, the Library, the Auditorium, and the Maintenance and Administration areas were located in ten provisional buildings. In the year 1974, the first permanent building and a modern theater with space for 500 people were built. Also, the physical facilities were expanded with two additional buildings, one with nine classrooms and another for faculty offices.

During the academic year 1973-1974, works began for the development of permanent facilities. In the year 1979 the Library, the Student Center, classrooms, two amphitheaters and diverse laboratories were built. In the year 1980, the Unit's office areas were relocated to the new permanent facilities.

Beginning the second semester of the academic year 1996-1997, a US Postal Office branch and an automatic teller machine (ATM) were added to the facilities for the benefit of the whole university community. In the year 2000 the Board of Trustees changes the name of the College to University of Puerto Rico in Ponce. In the same year the Víctor M. Madera Multiple Use Building is inaugurated. In this way, the university campus enlarged the character of its role as a facilitator of the population it serves. In the year 2000, the Unit's Athletic Program was inaugurated.

In the year 2005, in the context of the celebration of the centennial of the University of Puerto Rico, the UPR in Ponce Unit is endowed with the *Recta Ratio*, a monumental sculpture created by the Catalan artist José María Texidor.

Presently, the development design of the Unit's infrastructure stems from the base of the Physical and Programmatic Developmental Plan of the University of Puerto Rico in Ponce. The creation of an internal traffic circuit, the presence of a new entrance for the west side, the development of an orderly and aesthetic landscaping plan, the installation of optic fiber to maximize its technological resources, the complete modernization of the Library, and the construction of a Document Archive building, have enhanced the institutional environment and advanced the programmatic efforts to continue offering services of excellence to the Island of Puerto Rico.

THE UNIVERSITY OF PUERTO RICO IN PONCE: TRADITION OF ACADEMIC EXCELLENCE

The University of Puerto Rico in Ponce is based upon a tradition of academic excellence, since 1970, when it was founded as a Unit of the University of Puerto Rico System.

It is the only Higher Education institution of the University of Puerto Rico in the South of the Island that offers Associate Degrees, Bachelor's Degrees, and Transfer programs. Its graduates have greatly contributed to the economic transformation of Puerto Rico. At the moment, Bachelor's Degrees in Business Administration, Office Systems, Computer Sciences, Elementary Education, Athletic Therapy, Social Sciences, and Natural Sciences are being offered. The University of Puerto Rico in Ponce is committed to the fulfillment of the academic needs of its students and the community of the region it serves.

Natural Science students that complete the admission requirements of their programs are admitted to the University of Puerto Rico, School of Medicine, and the School of Medicine of Ponce, among others. In a same way, students of the Engineering Articulate Program that fulfill their program transfer requirements are accepted in the Engineering Program of the University of Puerto Rico, University Campus of Mayagüez, and other institutions.

Students participate in competitions, projects, conventions and exchange programs in Puerto Rico and outside the Island, for example: The Summer Exchange Program: Hispanic Association of Colleges and Universities (HACU), The Intercollegiate Olympics of Mathematics in the Calculus Area, The International Studies and Student Exchange Program, The Congressional Exchange Program in Washington, The Honors Program Annual Convention, The Summer Study Trip Program, and Choir Festivals, among others.

Graduates of the University of Puerto Rico in Ponce have been very successful in passing licensing exams and bar exams for different professions. Moreover, Unit professors constantly stand out due to their creative and research production which enriches and fortifies the quality of their teaching.

The Dean of Student Affairs Office has developed a great variety of student organizations that foster leadership and planning skills. Some of these organizations are: Alpha Computer Association, American Marketing Association, Cheerleaders Association, Band Students Association, Accounting Students Association, Choir Students Association, Finance Students Association, Forensic Psychology Students Association, Psychology and Mental Health Students Association, Athletic Therapy Students Association, Physical Therapy Students Association, Honor Program Students Association, Alumni Association, Office Systems Association, Mathematics Students Association, Cultural Circle *Guateke*, Premedical Circle, *Esencia y Palabra* Literary Circle, Chemistry Club, University *Christian Youth*, Counseling Students Organization, Phi Beta Lambda, *Mascarada* Productions, Athletic Society, Astronomy Society, Biology Honorary Society, Society for the Human Resources Management, and the Student Organization *Derribando Barreras para un Mundo Mejor*. This last organization works

in collaboration with the Orientation and Counseling Department to offer help to students with disabilities.

In the athletic area, our students have been proclaimed champions in masculine and feminine tournaments of the Interuniversity Sports Organization (ODI) and in the University Athletics relay championships. At the moment, the University is member of the University Athletic League (LAI).

The University of Puerto Rico in Ponce has a warm hearted campus atmosphere and a curriculum of excellence as well as support services that foster the success of students in a complex, global economy world filled with values and ethical challenges for its citizens.

ACCREDITATION

The Middle States Association of Colleges and Schools accredited the University of Puerto Rico in Ponce for the first time in the year 1976. The Unit has renovated its accreditation every ten years: in the year 1985, 1995, and 2005. It possesses the license granted by the Puerto Rico Council on Higher Education (PRCHE), which was renovated in the year 2005.

Diverse academic programs have begun the process for professional accreditation which grants them a feature of excellence. At the moment, the Physical Therapy Program holds an accreditation from the Physical Therapy Association (PTA). Also, a candidate for accreditation by NCATE is the Elementary Education Program; and the Business Administration Program and the Office Systems Program are candidates for accreditation by the Association of Collegiate Business Schools and Programs (ACBSP). The Associate Degree in Engineering and the Bachelor degree programs in Computer Sciences and Athletic Therapy have already begun their professional accreditation process. Also, the Counseling and Orientation Departments and the Library will be respectively professionally evaluated by International Association of Counseling Services (IACS) and the American Library Association (ALA). These accreditations and professional recognitions are supported by the Middle States Association (MSA) accreditation and the license granted by the Puerto Rico Council on Higher Education (PRCHE) to guarantee that the academic offer of the University of Puerto Rico in Ponce is of first rate quality.

VISION, MISSION, AND GOALS
(Academic Senate Certification 2006-2007-52)
(Academic Senate Certification 2006-2007-51)

Vision

Its vision is that the University of Puerto Rico in Ponce be the institution which most effectively promotes the development of its students' potentialities so that they may make significant contributions to the well-being of the country.

Mission

The University of Puerto Rico in Ponce is a public institution that is committed to the development of professionals with comprehensive academic preparations via effective and challenging teaching techniques. This process is aided by the creative and research activities which the institution disseminates. The university fosters community service, enriching educational experiences, and student support services.

To achieve its mission, the University of Puerto Rico in Ponce has established the following goals:

1. To provide students with appropriate mechanisms for developing skills needed in order to listen, to think, and to communicate effectively, orally and in writing, in both English and Spanish.
2. To enable students to develop the capacity for self-directed learning and independent study.
3. To prepare students for a specific occupations or professional careers.
4. To provide means by which students can overcome their academic deficiencies.
5. To provide students with appropriate and timely services complementary to academic life.
6. To systematically identify the need for new academic programs.
7. To evaluate and revise academic programs in order to adjust them to current needs.
8. To stimulate among students, faculty, and non-faculty staff, communication which will foster significant participation in the decision making process by all sectors.
9. To foster research as an integral part of the faculty's endeavors.
10. To provide opportunities for professional development to faculty and non-faculty staff.

11. To provide citizens of the Southern region with educational opportunities that contribute to their continuing professional, intellectual, emotional, and physical development.
12. To promote and develop community service activities which have a formative effect on students' lives.
13. To create an optimal environment for learning and teaching by strengthening auxiliary teaching services.
14. To establish administrative measures to improve efficiency and productivity.
15. To provide personnel with the necessary means for the continuous development of administrative and faculty functions.
16. To provide and maintain appropriate security measures for personnel, students, visitors, equipment, and physical facilities.
17. To provide and maintain a conservation and expansion program for physical facilities.

ALUMNI PROFILE
(Academic Senate Certification 2004-2005-48)

The alumni of the University of Puerto Rico in Ponce will possess the following characteristics:

1. The ability to communicate effectively in different types of situations and before different types of groups of people, in an oral and written way, in Spanish as well as in English.
2. The ability to outline and to solve problems that require the application of quantitative and qualitative analysis.
3. To have general notions regarding the ways to conduct research and to build knowledge in the arts and the sciences.
4. To master investigation skills and the ability to gather, analyze, and interpret information from a variety of sources.
5. Knowledge and use of informational technologies and systems, particularly in their study field.
6. Ability to analyze, to organize, and to synthesize information and knowledge in order to be able to apply it to the solution of problems.
7. Ability to think in logical and critical ways.
8. Capacity and disposition for self-learning and independent study.
9. Basic notions of some of the most outstanding exponents of the human imagination from our culture as well as from other countries and historical moments.
10. Capacity for collaboration and team work.
11. Knowledge of our history and cultural values.
12. Capacity to understand the social, historical, economic, and political issues that affect the contemporary world and to recognize their moral dimensions.
13. Knowledge and cultivation of ethical, civic, and aesthetic values.
14. Capacity to cultivate and to develop knowledge of the self, as well as of holistic health and the good use of leisure time.
15. Discernment regarding the consequences of their actions and disposition to assume the responsibility for decisions taken.

16. Disposition to foster solidarity, tolerance, freedom, and the necessary responsibility to live in a pluralistic, complex world of democratic aspirations.
17. Capacity to anticipate and to adapt to changes and to face the challenges that they will encounter throughout their lives.
18. Mastery of professional and personal skills and competencies by means of the use of the necessary tools to perform in their profession or discipline.

UNIVERSITY SYMBOLS

SHIELD



The circular, criss-crossed and crowned UPR-Ponce Coat of Arms has been designed according to the elements presented in the original emblem of 1970. These are: Minerve the Roman goddess of wisdom, the Ponce Lion, the century old kapok tree, and the hills which surround and give the city its particular topography.

First Cross Section

This section presents the golden tower symbolizing the University of Puerto Rico's color meaning knowledge, respect, and virtue. The green area represents autonomy and academic freedom.

The stairway with the book of knowledge and the lamp of wisdom symbolize the Regional Colleges Administration of the University of Puerto Rico. The red color in the background means devotion to the country.

Second Cross Section

Rogelio, the University mascot, sits on the bridge of the Shield of the City of Ponce. Rogelio holds a "dais nostrum" representing the Health Allied Sciences, a specialty of future growth in the curriculum. The red and black colors criss crossed by a white stripe coincide with Ponce's traditional colors.

Third Cross Section

Minerve the goddess, symbol of wisdom, whose color is silver, stands at the top of the steps (veritas), steps which should be climbed upon with effort and persistence; these two

qualities are represented by the blue color of the sky. Mount *Vigía*, icon of the alertness of the city of Ponce, and the Island's Central Mountain Range complete this section.

Fourth Cross Section

The century old kapok tree of Cuatro Calles and the Portugués River represent Ponce at its best. This section symbolizes the Programs offered by the College represented by: the dented wheel of industry (civil engineering), a computer cartridge (Business Administration, Computer Information, and Office Systems), the drawing triangle and the compass (Civil Engineering and Architectural Drawing), and an atomic orbit (Natural Sciences).

The lamp of wisdom and the book of knowledge representing Education are connected to the Regional Colleges Administration symbol. The Coat of Arms is decorated with a coffee branch and sugar cane blossoms, products which greatly contributed to Ponce's wealth. The crown delineating a castle symbolizes the rank conferred to Ponce in 1577 by Spain.

This Coat of Arms possesses a wide spectrum of rich historical cultural and educational symbolism. It represents the University's commitment to offering its students education at its best so that they will render honorable services to their country. On September 15, 1992, the Coat of Arms was ratified by a faculty assembly.

HYMN

Another symbol of the University is its **Hymn** which lyrics and score were composed by Griselle Báez Muñoz and its choral arrangement by Prof. Rafael Montero.

Glorious institution that with
Great zeal and devotion
Sows the seeds of knowledge
Teaches us duty and determination
Rendering us education as a legacy.

Let us join our voices
Let us sing to the greatness of this
Unique gift of our ALMA MATER
That we shall forever
Take with us wherever we go.

The hunger for knowledge is awakened
The professors lead us with enthusiasm
And through hard work and zeal
We prepare ourselves for a better future.

UNIVERSITY OF PUERTO RICO DIRECTORY SYSTEM

Presidency

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Río Piedras Campus

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Mayagüez Campus

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Medical Sciences Campus

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UPR in Carolina

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UPR in Utuado

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Utuado, PR 00761-2500
Tel. (787) 894-2828

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University Board Academic Senate Represent

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Prof. Ruth Calzada Fortuño

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Continuing Education and

Professional Studies Division

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Mr. José L. Pons Torres	Extracurricular Activities
Mrs. Acmin Velázquez Rivera	Admissions
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Prof. Ileana Latorre Rodríguez	Band
Mrs. Marisel Ramírez Rivera	Quality of Life
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Prof. Marylucy Rodríguez Vázquez	Choir
Mr. Harry Bengochea Vázquez	Registrar
Dr. Daniela González Altiery	Medical Services

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Acting Dean of Administrative Affairs

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Mrs. Maritza Castro Rivera	Purchases
Mr. Germán Pimentel Luiggi	Campus Security
Mr. Freddie Marfisi Vargas	Print Shop
Mr. Pedro I. Martínez Rivera	Finance
Mrs. Merlyn I. Loyola Torres	Payroll
Mrs. Irma Polanco Martínez	Disbursement
Mrs. Lilliam Padilla López	Pre-Intervention
Mr. Walter Rodríguez Álvarez	Property
Mr. Soel Quiñones Rojas	Bursar
Mr. Juan C. León Valls	Human Resources
Mr. Alberto García Torres	Physical Resources

CHANCELLOR'S OFFICE

Prof. Jaime César Marrero Vázquez
Chancellor

Mrs. Reina M. González Castro	Assistant to the Chancellor
Esq. Carlos Archevald Mantilla	Legal Counselor
Mr. Juan Vega Vega	Information Technology Office
Prof. Neyla Rivera Caño	Pre-School Development Center
Dr. Luis Raúl Sánchez Peraza	Urban Studies Institute
Miss Arline Torres Vélez	Equal Employment Opportunities Office
Mr. Isaac Colon Degro	Budget Office Director
Dr. Leonardo Morales Tomassini	Office of Planning and Institutional
	Research Director
Prof. Grisobelle Virella Corujo	External Resources
Dr. Luz I. Martínez Santiago	Ceiba Magazine
Prof. Margarita Villamil Torres	Student Ombudsperson
Mr. Francisco Hernández Pérez	Health and Safety
Dr. Rosario E. Ríos de Torres	Title V Project

OTHER ADMINISTRATIVE OFFICIALS

Capt. Héctor Román	Military Sciences
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OFFICE OF PLANNING AND INSTITUTIONAL RESEARCH

This office is ascribed to the Chancellor's office. Its functions include, but are not limited to: coordinate the planning process; to serve as liaison to accreditation organizations, such as the Middle States Association of Colleges and Schools, and the Council on Higher Education, among others; to conduct research studies concerning specific institutional situations by means of the use of the appropriate procedures; to be an integral part of the design, development, and evaluation of programs; to stimulate the interest for the academic investigation; to offer technical advice and information in the preparation, design, and submission of proposals for external funds; and to participate in the process of the collection of these funds on behalf of the private sector.

EXTERNAL RESOURCES OFFICE

The External Resource and Development Office was created with the purpose of pursuing three important initiatives in the process of expanding the fiscal resources of the institution, as well as strengthening the links with the extraordinary and valuable alumni population of the UPR-Ponce. This office is the liaison which coordinates and offers the external resource initiative services regarding fund raising and the alumni.

Our vision is to become the leading higher education institution in the southern region of Puerto Rico by means of presenting and developing projects that are aligned with the vision of the 2006-2016 UPR-Ponce Strategic Plan, thus making a contribution by fulfilling the needs of a highly visionary and capable labor force that can positively contribute to the socio-economic development of the region, Puerto Rico, and the world, integrated by alumni with a strong link to their Alma Mater.

Our compromise and mission is to intensely and systematically work in the process of discovering existing federal, state, and local agency resources not accessed yet as well as those available from the private sector such as foundations and industries, thus augmenting the possibilities of obtaining financial subvention in order to develop projects that can strengthen the teaching-learning process and the quality of life of the university community members and our society, as well as the academic and physical infrastructure of the institution.

Our function is to provide information regarding existing opportunities for obtaining financial subvention in order to develop projects aimed at achieving academic excellence that promote academic and professional growth. Our personnel offers technical assistance in the writing of proposals and inquiries for external fund sources; and in the conceptualization of projects and the diverse developmental stages of proposals, including form and style aligned with the particular guidelines of each sponsoring agency; and in the preparation and procedures of electronically proposal submissions and their follow up until they have been approved. Likewise, our office develops procedures and recommends policies that promote the conscientious administration of projects, fulfilling established federal, state, and institutional guidelines.

The fund raising initiative is done in collaboration with the Institutional Fund Raising Committee and has as its goal the development and implementation of the Strategic Fund Raising Plan, which is aligned with the Plan and Systematic Fund Raising Calendar of the UPR. Within its priorities are the Annual Fund Raising Campaign, the pursuit of extraordinary donations, the endowment fund, and the celebration of special events through which funds for scholarships for students with special needs and other institutional projects can be obtained.

The initiative provided through the Alumni Office allows the maintenance of an actualized data base of all alumni that obtained a college degree from the UPR-Ponce unit, as well as of those which attended the Unit for a given period of time although they did not obtained a degree from it. This actualized data base allows this office to inform its alumni about the accomplishments and diverse activities that take place at the Unit's campus. Likewise, it promotes the celebration of activities aimed at strengthening the link between alumni and their Alma Mater.

CEIBA MAGAZINE

The *Ceiba* Magazine of the University of Puerto Rico in Ponce began to be published in the year 1973, three years after the foundation of the Unit.

Its pages are the vehicle of expression of the intellectual creativity of the faculty of the University of Puerto Rico in Ponce. Also, its pages have served as a stage for writers belonging to different units of the System and of the Island in general. Therefore it has been, "An open house toward the cardinal points of cultural and creative endeavors."

Ceiba Magazine is an annual publication of thematic variety ranging from literature, psychology, sociology, biology, physics, criticism and interpretation, history, economy, education, and philosophy. The magazine consists of the following sections; Articles, Creation, and *Mirador Ponceño* (Ponce's Viewpoint). This last section fulfills the objective of disclosing cultural aspects of our Institution as well as of Ponce.

In the year 2006, Ceiba Magazine obtained recognition from, and was incorporated into Latindex which represents a great professional accomplishment ranking the publication at an international level. Its insertion into the Latindex Catalog takes place with Issue 5, Number 2, (second period) August – May 2006. That same year Ceiba Magazine entered the index of the Conuco Group.

ACADEMIC OFFER

The Academic Offer of the University of Puerto Rico in Ponce consists of bachelor degrees and associate degree programs:

BACHELOR'S DEGREES

Biology with sub-concentrations in:

Biotechnology	
1233	
Coastal Marine Environment Evaluator	1234
Biodiversity Evaluator	1232
Biomedicine	1231
Computer Sciences in Computerized Information Systems	4004
Accounting	0302
Finance	0304
Management	0305
Marketing	0311
Elementary Education	
0419	
Forensic Psychology	1619
Psychology and Mental Health	1620
Office Systems	0318
Athletic Therapy	0715

ASSOCIATE DEGREES

Office Systems	2114
Civil Engineering Technology in Architectural Delineation	
2005	
Civil Engineering Technology in Construction	2009
Technology in Industrial Engineering	2010
Physical Therapy	2403

ARTICULATED TRANSFER PROGRAMS UPR MAYAGÜEZ CAMPUS

Surveying and Topography	0506
Education Mathematics	1222
Civil Engineering	0501
Computer Engineering	0507
Electric Engineering	0502
Industrial Engineering	
0503	
Mechanical Engineering	0504
Chemical Engineering	
0505	

Pure Mathematics	1205
Mathematics in Computer Sciences	1220
Chemistry	1204

ARTICULATED TRANSFER PROGRAMS UPR RÍO PIEDRAS CAMPUS

Anthropology	1607
Political Sciences	1604
General Social Sciences	1616
Cooperativism	1612
Drama (Theater)	
Economy	1603
Secondary Education	
Art	0412
Industrial Arts	0408
Physical Education	
0409	
Teaching English to Spanish Speakers (TESS)	0411
Physics	0405
Mathematics	0404
Family Ecology - Nutrition and Diet	0445
Chemistry	0403
Theater	0417
Hispanic Studies	0909
Philosophy	0908
French	0912
Geography	1608
History of Europe	0919
Art History	0915
History of the Americas	0918
English	0907
Modern Languages	0925
Comparative Literature	0901
Music	0910
Sociology	1606
Chemistry	5907
Elementary Education	
Special Education	0421

ARTICULATED TRANSFER PROGRAM UPR BAYAMORN CAMPUS

Bachelor's Degree in Material Management	0315
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ARTICULATED TRANSFER PROGRAMS UPR CAYEY CAMPUS

Sciences

Mathematics	1205
Chemistry	5908
Elementary Education	
Special Education	0446
Secondary Education	
Natural Sciences	0401
Physical Education	5806
Spanish	0415
History	0413
English	0414
Mathematics	5805

ARTICULATED TRANSFER PROGRAMS UPR HUMACAO

Physics Applied to Electronics	1215
Computational Mathematics	1216
Industrial Chemistry	1210



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GENERAL UNIVERSITY POLICIES

GENERAL UNIVERSITY POLICIES

STUDENT DUTIES AND RIGHTS

The laws and academic tradition recognize the rights of students as members of the university community and also recognize the moral obligation and intellectual responsibility concurrent with those rights. The laws and the tradition also recognize the responsible participation of students in promoting and maintaining the order, the safety, and the norms that regulate academic life. These rights and responsibilities, and the disciplinary procedures related to their violation, are specified in the Student Guidelines, Certification Number 130-1979-80 of the Council on Higher Education and in the General Regulation Student Guidelines of the Regional College Administration of the University of Puerto Rico. These regulations are available for all the students and general public at the Deanship of Student Affairs Office.

GOVERNMENTAL ETHICS LAW

This law establishes the conduct standards for public officials in their employment relationships and related practices. Its fundamental purpose is to avoid conflicts of interest and to promote the ethical and suitable behavior of all public servants that work in the governmental system of Puerto Rico and in turn, to assure the faithful execution of norms of excellence and propriety.

HIPAA LAW OF 1996 (HEALTH INSURANCE PORTABILITY AND ACCOUNTABILITY ACT)

Beginning on April 14, 2003 the University of Puerto Rico in Ponce began to abide by and follow the regulations of the HIPAA Law, which was approved on August 21, 1996 by the Congress of the United States. This law obligates all employers to protect and to secure the data related to the health of their employees.

All persons, including students and employees, are entitled to the confidentiality of their medical information as well as of approving or rejecting the disclosure of certain types of information, except when the law demands it. No information regarding medical conditions of employees or students can be disclosed to any individual without previous written authorization. The non-fulfillment of this law will bear the sanctions specified in its contents. In the same measure, disciplinary sanctions will be applied in accordance with the General Regulation Guidelines.

The Human Resources, Medical Services, and Equal Employment Opportunity Offices, as well as the Registrar's Office have taken the due steps to guarantee the privacy and confidentiality of the medical files of the Unit's employees and students.

Circular Letter 03-04 - HIPAA LAW OF 1996 HEALTH INSURANCE PORTABILITY AND ACCOUNTABILITY ACT

LAW 51 LAW OF INTEGRATED EDUCATIONAL SERVICES FOR HANDICAPPED PEOPLE

The University of Puerto Rico in Ponce fulfills the responsibilities assigned to the Unit by Law 51 of June 7, 1996 by means of its formulation and implementation. Law 51 declares the right of handicapped people to receive a public and gratuitous education in accordance with their needs. For this purpose, the responsibilities and functions of the University in its mission for the search and dissemination of knowledge, and the preparation of its personnel, are clearly established to guarantee the highest level of quality of life for handicapped infants, children, and young adults. The UPR's fulfillment of the statutes specified by Law 51, *supra*, will be conditioned by the fact that the necessary and indispensable resources be assigned, as included by the UPR in its budgetary petitions in order to fulfill its responsibilities and obligations under this law.

PATENTS AND INVENTIONS

The University of Puerto Rico is an institution of the Commonwealth of Puerto Rico. The policies of the University consist on carrying out its academic endeavor in a free and open atmosphere and to assure that it is carried out until it reaches public dissemination. However, the University recognizes that the patentable inventions can sometimes be, and in fact in some cases are, the results of the investigation carried out by its employees, students, and other affiliates in the course of their work or while they use funds and the facilities of the University. Therefore, establishing the rights of property, patent, licenses, and protection of those inventions is congruent with the purposes and mission of the University.

These policies provide the authority to request, to evaluate, and to market the inventions by the faculty, personnel, students, and others that can be employees or hired to work in the University of Puerto Rico. Also, these policies establish and govern a program to recognize, to disclose, to evaluate, to patent, and to market these inventions. Nevertheless, these policies do not apply to intellectual property rights related to author copyright material.

The University of Puerto Rico seeks to protect and to foster the application of requests for patentable inventions in agreement with the laws of the Commonwealth of Puerto Rico and the intention of the Patent Law of the United States (Title 35, Code of the United States), as amended, with regard to inventions created under the sponsor of the United States Government.

EQUAL EMPLOYMENT OPPORTUNITY EMPLOYER INSTITUTIONAL POLICY

The University of Puerto Rico in Ponce guarantees equality of opportunities during the application for employment and admission. It also guarantees students and employees equality of study and employment opportunities, of service benefits and program offerings, and equality of employment terms and conditions.

The University of Puerto Rico prohibits all discrimination in the education, the employment and in the benefit of services for reasons of race, color, sex, birth, age, origin or social condition, origin, civil state, ideas or religious or political beliefs, gender, sexual preference, nationality, ethnic origin, condition of veteran of the armed forces or physical disability.

These anti-discrimination policies extend to all the functions and activities of the University of Puerto Rico and all the institutional units that integrate its system, such as the employment and the employment selection, the educational programs, the services, admissions, and financial aid, among others.

Any person considering he/she has been discriminated against can reach the Office of Equal Employment Opportunities or the Human Resources Office, if he/she is an employee, or can reach the Student Ombudsperson if he/she is a student.

The establishment of this policy as well as its publication is in accordance with the federal regulation for the implementation of Title IX (Educational Amendments of 1972 and Section 504 of the 1973 Rehabilitation Act); Executive Order 11246 of September 24, 1965 (Equal Employment Opportunities); Law 212 of August 3, 1999 - Law to Guarantee Gender Equal Employment Opportunities; the Regulation of the University of Puerto Rico, Article 31 that guarantees Equal Opportunities for all its personnel; and Certification Number 58-2004-2005 of the Board of Trustees. This last certification establishes that:

The University of Puerto Rico prohibits all discrimination in the education, the employment and in the benefit of services for reasons of race, color, sex, birth, age, origin or social condition, origin, civil state, ideas or religious or political beliefs, gender, sexual preference, nationality, ethnic origin, condition of veteran of the armed forces or physical disability.

(Circular letter AA05-06-01 - Declaration of Policies on Affirmative Action for the Employment of Women)

NO SMOKING INSTITUTIONAL POLICY (Law 40)

At the University of Puerto Rico it is prohibited to the university community (students, professors, and employees) to smoke in closed spaces, such as: classrooms, the auditorium, library, museums, corridors, cafeteria, and rest rooms. People who want to smoke must do so outside the buildings, in such areas as: parking lots, balconies, or outdoor terraces.

INSTITUTIONAL POLICY FOR FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT OF 1974

The University of Puerto Rico in fulfillment of this law protects the privacy of students and their academic files and establishes each student's right to examine their file. Also, it provides guidelines for amendments or corrections to the files. Copies of this policy can be obtained at the Registrar's Office or at the Dean of Student Affairs Office.

PROHIBITION OF SEXUAL HARASSMENT INSTITUTIONAL POLICY

This law prohibits sexual harassment in the institutions and requires that specific policies and procedures be formulated to assure an adequate study and work environment. It establishes that sexual harassment consists of any type of unwanted sexual approach, requests for sexual favors, and any other verbal or physical behavior of sexual nature that affects the work or academic environment of the harassed person (Exposition of Motives, Law # 17 of April 22, 1988). This behavior constitutes an infraction to diverse laws and it will be subject to the regulation processes of the University.

INSTITUTIONAL POLICY FOR NON-AUTHORIZED REPRODUCTION OF COPYRIGHT LAW PROTECTED WORKS

The institutional policy approved in the year 1993 and expressed in the Circular Letter Number 95-01 guides the university community in the application of copyright laws. In particular, of the Federal Law of Copyright Protected Works which safeguards the rights of all work type perpetuated by means of any tangible expression. This protection extends to literary, musical, and dramatic works, to pantomimes, graphics, films, and architectural works, and computer programs or other electronic means.

Among the author copyrights subject to protection under the Federal Copyright Act Law of the United States, is the exclusive right of the holder of a protected work to its reproduction. The level of proliferation of establishments at the local level that are devoted to reproducing works in violation of author copyrights is alarming. As a result, the UPR in Ponce emphasizes the need that members of the university community avoid falling into practices that can be considered violations to the Federal Copyright Law, and that they abstain from fostering or sponsoring directly or indirectly those which incur in these violations.

This law allows the reproduction of a protected work without its author's consent provided it is for a fair and reasonable use. A reasonable use is one done for educational or investigation purposes, without profiting, or for criticism purposes, to comment about a text or in news reports.

POLICIES FOR THE ETHICAL AND LEGAL USE OF INFORMATIONAL TECHNOLOGIES

Certification Number 072, Series 1999-2000, of the Board of Trustees of the University of Puerto Rico, establishes the institutional policies to guarantee that the university community, the personnel that lend services to the University of Puerto Rico, the external clients, and the users of the informational systems and telecommunication technologies of the University make good use of them. These policies apply to the use of university institutional information in hard copy, tape, electronic communication, or any other analog formats.

Any person that makes unlawful use of the informational technology systems will be punished with disciplinary action according with university regulations, as well as other actions that might rightly proceed. [Circular letter 06-03 - Norms for the Use of Student Information System Accounts (SIS)].

INSTITUTIONAL POLICIES ON SAFETY

State and Federal laws impose on educational institutions the responsibility of offering protection and security to the members that compose the university community. The University of Puerto Rico recognizes as its legitimate institutional interest the facilitation of the security and protection of the life of its members. The Institution is also in charge of preventing the occurrence of criminal acts within the physical facilities of its educational system. The present declaration of public policies is promulgated according to the Public Law 101-542 known as "Student Right to Know and Campus Security Act". This law requires the annual preparation, the publication, and the distribution of a Security report. The following chart includes statistics regarding campus crime rates corresponding to the last five years.

Statistic chart of campus crime rates corresponding to the last five years:

<i>Crimes</i>	<i>Year 2002</i>	<i>Year 2003</i>	<i>Year 2004</i>	<i>Year 2005</i>	<i>Year 2006</i>
Murders					
Rapes					
Aggravated assault					
Robberies	5			17	7
Burglaries					
Stolen vehicles					1
Violation of Drug and Alcohol Use Laws					
Illegal possession of Weapons					
Illegal Appropriation					
<i>Total of Crimes</i>	5	0	0	17	8

This law promulgates that any person that violates any federal or state statutes will be subject to disciplinary sanctions established in the University Regulation Guidelines or to be processed at the civil or criminal level by means of the applicable laws.

Besides Campus security, another component of Public Law 101-542 is the component related to graduation rates. The following chart includes information concerning this aspect:

Chart of graduation rates corresponding to the last five cohorts:

<i>Cohort</i>	<i>Cohort Enrollment</i>	<i>Academic Year</i>	<i>Graduation Rate</i>
96	1228	2002-03	33.00
97	1227	2003-04	34.00
98	983	2004-05	30.00
99	1052	2005-06	29.10
00	1013	2006-07	35.30

ALCOHOL AND DRUGS ABUSE INSTITUTIONAL POLICIES

The University of Puerto Rico, aware of the problem that the use and abuse of drugs and alcohol represents to the university community, has prohibited the manufacturing, the distribution, the supply, the possession, and the illegal use of controlled substances and the abuse of alcohol. Such practices are harmful to the institution's best interests and will not be allowed regardless of the hierarchy or institutional position of the persons that might be involved. Under no circumstances will it be permitted that anyone violates this prohibition, or that anyone be under the effects of a controlled substance or of alcohol, and remain in the work or study place. Violators of this law are subject to disciplinary sanctions.

These policies are implemented in agreement with the following dispositions:

- Law of the University of Puerto Rico, Law Number 1 of January 20, 1966.
- Drug Free Schools and Communities Law of 1989 (Public Law 101-226)
- Internal Regulations of the Department of Defense of the United States

(Certification Number 33-2005-2006 - Policies of the University of Puerto Rico about the Illicit Use of Drugs, Controlled Substances, and Abuse of Alcohol)

VACCINATION LAW FOR STUDENTS UNDER 21 YEARS OF AGE (SEPTEMBER 25, 1983)

The law requires that annual reports be presented to the Health Department about the vaccination status of all students less than twenty one years of age registered in each university institution.

University students should have the basic dosage required for their age according to the Health Department, which should include:

3 or more DTP/DTaP/DT/Tdap. (3) Polio, (2) MMR, (3) Hepatitis B., (1) MCV and (1)Tdap.

DECLARATION OF POLICIES FOR THE PREVENTION AND INTERVENTION IN CASES OF DOMESTIC VIOLENCE, AGGRESSION, AND STALKING

The University of Puerto Rico in Ponce (UPRP) is committed to the Policies of the Commonwealth of Puerto Rico and to Executive Order 2005-17 which repudiates and prohibits acts of domestic violence in the work place. The UPRP will not tolerate such acts for they constitute an assault and a criminal act against the person employed. Domestic violence is a manifestation of discrimination for reasons of gender.

The Administrative Board, in their ordinary meeting of February 9, 2006 and by means of Certification Number 2005-2006-43, approved the Policies and Procedures for the Prevention and the Intervention in Cases of Domestic Violence, Aggression, and Stalking. Copies of these policies are available at the Deanship Offices, Department Chairperson Offices, Human Resources Office, Equal Employment Opportunity Office (EEO), and the Library. Also, it is digitally available at our page www.uprp.edu under the EEO Office. These Policies reaffirm our commitment and that of the Administration of the University of Puerto Rico in maintaining a secure work area for its entire personnel.

The University of Puerto Rico in Ponce invites all its employees and employment applicants to become united in supporting this Affirmative Action Program. Let us not to allow domestic violence to affect our employment place. United, let us work to eradicate or at least minimize this problem that affects our society.

ENVIRONMENTAL POLICIES

The University of Puerto Rico, in the fulfillment of its responsibility with the community and as an agent of social change, assumes with firm commitment and in a position of leadership, the proposal of concrete alternatives that can contribute to the solution of the existent environmental problems. The objectives of the Environmental Policies of the University of Puerto Rico are the following:

1. To operationally implement the Environmental Policies of the Commonwealth of Puerto Rico, adapted to the institutional reality and to serve as model of its implementation.
2. To establish mechanisms to serve as a forum for the discussion of environmental problems that concern Puerto Rico, the Caribbean, and the entire world.
3. To contribute ideas and to participate in the public discussion of environmental problems.
4. To establish mechanisms to fulfill the laws and regulations of environmental protection applicable to the University of Puerto Rico.



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ADMISSION PROCESS,
TRANSFER,
READMISSION,
ARTICULATED
TRANSFER,
RECLASSIFICATION, AND
REGISTRATION

ADMISSION, TRANSFER, READMISSION, ARTICULATED TRANSFER, RECLASSIFICATION, REGISTRATION, AND OTHER PROCESSES

ADMISSION

The University of Puerto Rico seeks the optimal formation of its admitted students. In order to accomplish this goal, the institution must assure that its admission criteria allows it to identify among the applicants, those that have the potential to meet the educational and academic challenges that courses of study at a quality higher education institution presuppose.

These admission policies have been elaborated with the purpose of predicting such potential, in accordance with the demands of the diverse Academic Programs offered by the institution. On the other hand, these admission policies seek to guarantee applicants that the University of Puerto Rico uses formal and equal admission procedures and criteria.

Academic Admission Requirements:

1. To have graduated or to be a candidate for graduation from a public or private accredited high school or its equivalent, or to have passed the High School Equivalency Test of the Commonwealth of Puerto Rico, Department of Education.
2. To have taken the entrance exam required:
 - a. Academic aptitude (verbal and mathematics) and academic achievement (English, Mathematics, and Spanish) tests administered by the College Board.
 - b. Scholastic Aptitude Test (SAT) and three tests from the “Achievement Test”. English, Mathematics Level I, Spanish (SAT II) This test is requested through the Educational Testing Service.
3. To fulfill the established Entrance Index for the Study Program requested.
4. To fill out the application form provided by the University of Puerto Rico and to submit it by its deadline.
5. To request an official high school transcript to be sent to the University by mail.

Admission of Students with Special Talents and Abilities

The University of Puerto Rico recognizes the need to facilitate admission to a limited number of students that possess talents or exceptional abilities. These must fulfill the following requirements:

1. To have fulfilled high school graduation requirements with a grade point average not lower than 2.00, or to have passed the high school equivalency test of the Commonwealth of Puerto Rico, Department of Education.
2. To have taken the required entrance exam.

3. To have submitted on time the Admission Application of the University of Puerto Rico, and to have indicated on it that the applicant possesses abilities, talents, or exceptional conditions.
4. To have an entrance index that is not lower than twenty (20) points than that of the Study Program entrance index of the Unit to which the student is been considered for admission. In no case should the Application General Index (AGI) be lower than the minimum required by the institution. The applicant must fulfill the specific requirements for admission for special abilities as is specified in Certification 2005-2006-47 of the Academic Senate of the UPR-Ponce.

Admission for Applicants Coming from High Schools of Other Countries

1. To have evidence of authorization to study in Puerto Rico or in North American territory.
2. Comply with the admission requirements applicable to high school students.
3. Send an official transcript of their high school academic record in the student's native language and another one in English or Spanish. This document must be certified by the granting institution and validated by the Ministry of Education of the student's native country and the American Consulate.
4. Submit evidence of diplomas and degrees earned.
5. Submit evidence of proficiency in both the English and Spanish languages.
6. Be financially capable of supporting himself/herself in Puerto Rico.
7. Provide an official certification showing the institution attended is duly recognized by the government (for students proceeding from private institutions).

All documents received become property of the University of Puerto Rico in Ponce. The documents expire a year after being received.

Not informing credits approved in other university institutions will cause the cancellation of the admission at the moment in which the omission of this information is evidenced.

Note: New enrollment applications for the first semester are only considered in August.

TRANSFER

A student which comes from a properly accredited or authorized university institution and which has not previously studied at the University of Puerto Rico will be considered a transfer applicant.

Requirements and General Norms

(Certification 2002-2003-69 of the Academic Senate UPR-Ponce)

(Certification 2005-2006-33 of the Academic Senate UPR-Ponce)

Requirements for Bachelor's Degree Programs

1. Type "A" Transfer

- a. To have approved 30 credits with the minimum grade point average required by the Department to which he/she is applying to.
- b. To fulfill the specific requirements of the Program to which he/she is applying to.

2. Type "B"¹ Transfer

- a. If the student has less than thirty (30) credits approved at the university he/she is transferring from, the student must show satisfactory* academic progress and fulfill the Applicant General Index (AGI) established by the program which corresponds to the year in which the applicant completed his/her high school studies.
- b. College Board results must be valid. (These expire after 5 years)

*To have an academic index that is not lower than 90% of the grade point average, and to have the courses required for transfer type "A" for the specific Department.

ARTICULATED TRANSFER AND ASSOCIATE DEGREE PROGRAMS

1. Type "A" Transfer

- a. To have approved 24 credits with the minimum grade point average required by the Department to which he/she is applying.
- b. To comply with the specific requirements of the program.

¹ Amended by Certification 2005-2006-33

2. Type “B” Transfer

- a. If the student has less than 24 credits approved at the University he/she is transferring from, the student must show satisfactory academic progress and fulfill the Application General Index (AGI) established by the program which corresponds to the year in which the applicant completed his/her high school studies.

GENERAL GUIDELINES

A student requesting to be transferred to a Bachelor’s degree program or an Associate degree program must approve 50% or more of his/her specialty credits at the University of Puerto Rico in Ponce to be able to graduate from that program.

TRANSFER APPLICATION PROCEDURES

The student must complete and submit the application no later than the deadline established and pay a \$33.00 quota by means of a money order or certified check endorsed to the University of Puerto Rico. The payment can also be made through a credit or debit card. All applications submitted after the established deadline will be subject to a late-fee charge. In this case, the amount of the quota to be paid will be \$49.50. The same day the payment is made, late applications must be handed in to the Bursar’s Office so the document can be certified immediately. (Accepting late applications does not imply that the Committee will approve them.)

The applicant must request two (2) official transcripts of his/her academic record from each one of the university level academic institutions he/she has previously attended to, which must be sent to the Admissions Office of the University of Puerto Rico in Ponce. The applicant must submit a copy (or an equivalent) of the catalog of the university he/she previously attended if the institution is located outside of Puerto Rico.

Similarly, the student must have the Recommendation Form from the Office of the Dean of Student Affairs of the university he/she previously attended, sent to the Admission’s Office. This document is indispensable for the evaluation of the case. If the student has studied in more than one institution, the Certificate will be that of the most recent one.

If before filling the application a student is interested in knowing the amount of credits that can be transferred, the student will be referred to the department chairperson for a preliminary evaluation. The initiation of this procedure is the applicant’s responsibility.

EVALUATION

- a. The student must complete the transfer application available at the University's Admission Office according to the instructions established in the manual and pay the corresponding fees.
- b. When the applications are collected, the Admission's Official will bring them to the Dean of Academic Affairs Office who will distribute them to the corresponding Academic Departments.
- c. Department Chairpersons together with the Departmental Committees, will evaluate the applications and make the corresponding decisions. All declined applications must be accompanied by an explanation regarding the decision. The credit convalidation is part of the evaluation process; therefore, no student should be admitted without the previously mentioned document having been completed.
- d. Department Chairpersons must return the evaluated applications to the Dean of Academic Affairs Office who will emit the final decision.
- e. The Dean of Academic Affairs will, in turn, send the evaluated applications to the Admissions Office which will contact the applicants.
- f. The Admission's Official must take the accepted applications to the Registrar's Office. The Registrar's Office will mail the applicants a transcript copy of the credits transferred.
- g. The applications that are not evaluated because of lack of complete documentation will be declined by the Office of the Dean of Academic Affairs.
- h. Applicants who are not accepted may apply to the Admission's Official for reconsideration. This request must be remitted to the Office of Academic Affairs so the reconsideration process can be established.

The University of Puerto Rico in Ponce is committed to evaluating all submitted applications in an equal and fair manner but does not guarantee a space in the Program requested.

READMISSION

It is the procedure by which a student of the University of Puerto Rico requests readmission to the System after having interrupted his/her studies for a semester or more. The student must request readmission at the Registrar's Office, and must complete the application and pay the corresponding fees. Applications submitted after the deadline will be subject to late fees. If the student was academically suspended, he/she must request readmission in a probation basis and accompany the application with a letter from the Academic Achievement Committee which will evaluate the case. The Registrar's Office will notify the student of the outcome of his/her application. Any student that has obtained a Bachelor's degree from the UPR System and wants to continue studying can apply for readmission at any of the UPR campuses. Otherwise, if the student has not completed his/her degree, he/she must apply for readmission at the Unit where he/she started his/her studies.

RECLASSIFICATION

It is the change from a study program to another. The student may submit an application for such a change at the Registrar's Office according to the deadline specified in the academic calendar.

The eligibility requirements are:

24 credits with the grade point average established for each specific department or the Application General Index (AGI) for the program he/she requested (if the student does not fulfill the above requirements.)

ARTICULATED TRANSFERS

This is a curricular block program designed to provide System undergraduate students with the opportunity to begin their studies at a given Unit and subsequently transfer to another Unit of the System of the University of Puerto Rico and complete the academic program to which he/she was admitted just as if he/she had been admitted to the second Unit in the first place. Articulated transfer students, unlike general transfer students, have a place guaranteed in the Program agreed at the Unit to be transferred to, granted they maintain satisfactory academic progress and fulfill the terms of the agreement.

The curricular block can be completed within one (1) to three (3) years of study at the original Unit depending on:

Requisites: Each Academic Department will notify articulated transfer students about the requisites established at the campus he/she would like to transfer to.

REGISTRATION

During the registration process, students register in their courses and pay for them and for the services that they will be entitled to receive during the semester. The Registrar's Office is the custodian of the students' academic documentation and coordinates the registration process. Students must enroll during the period specified in the Academic Calendar and no student registration will be accepted after the sixth day of the beginning of classes of a regular semester or the third day after the beginning of a summer session, except in exceptional cases where it is recommended by the Chancellor.

EARLY REGISTRATION

It is a privilege granted to Honor Program students and students with identified handicaps. Certification 2003-2004-25 of the Academic Senate of the UPR-Ponce also establishes the granting of early registration rights to Athletes, Choir and Band members, Theater, and student Senators; and establishes the protocol to follow in such cases.

Procedures

Students active in the System select the course sections previously recommended by their academic counselors. This process can be carried out through the Internet. Students should present their admission certificate, a High school graduation certificate, immunization and vaccination certificates, and other documentation required by the Medical Services Office at the time of being admitted. The Registrar's Office generates the student registration sheet in agreement with the courses recommended by the Department Chairpersons. Then, the Bursar's Office sends the tuition bill as well as instructions for its confirmation to all enrolled students.

The process of registration becomes valid when students confirm and pay their tuition bill at the Bursar's Office within the deadline established for payment.

Changes

Student study programs can be amended with the recommendation of the Department Chairperson and the authorization of the Dean of Academic Affairs before the deadlines indicated in each semester or summer Academic Calendars.

The Registrar's Office will not accept program changes after the sixth day of classes of a regular academic semester, or the third day of classes of an academic summer session, except in extraordinary circumstances by recommendation of the Dean of Academic Affairs.

Fees, Tuition, and Registration Charges

1. Resident Student Registration Fees

For Associate or Bachelor's degree, or Articulated transfer Programs and Part time students (registered in less than 12 credits) the cost per credit is \$40.

2. Non-Resident American Citizen Student Registration Fees

The students that are American citizens and come from the United States will pay an additional amount that corresponds to the minimum that Puerto Rico residents would have to pay if they studied at the State university where they come from.

3. Non-Resident Foreign Student Registration Fees

Non-resident students of foreign nationality will pay a registration fee rate of \$1,596.00 per semester.

4. Other Registration Fees

As part of their registration all students must pay the following fees:

- Technology Fees \$25.00 per academic session
- Construction Fees \$47 per academic session
- Laboratory Fees \$33 per laboratory session
- Identification Card Fee \$5.00 per academic session

The students that attend courses as listeners will pay \$33 per each course.

Beginning fiscal year 2007-2008, the tuition fee for all Programs of the University of Puerto Rico aimed at attaining an undergraduate or graduate degree will be determined in basis of the tuition cost Adjustment Rate Formula that maintains its real value through periodic adjustments that take into consideration the rise in the cost of living, so that future generations of students that contribute to the financing of the real cost of their Education are treated in an equal and fair manner.

The tuition fees established under the formula will be applied to students that begin studying at the University of Puerto Rico in the academic year 2007-2008 and subsequent years.

The University guarantees every student, at the undergraduate as well as graduate level, that the tuition fee that they will pay at the beginning of their study course will remain unchanged for a period of time equal to 150% of the calendar time required to complete their Study Program, beginning the year the student was admitted to the University or till the student graduates from the program, whichever takes place first. If the student exceeds from the 150% limit calendar time, the student must pay the tuition fee that corresponds to the incoming class of the next academic year.

Tuition Fees Beginning Fiscal Year 2007-2008 *

*Source: Certification Number 60, 2006-2007 of the Board of Trustees.

UNDERGRADUATE STUDIES: INCLUDING FOUR AND FIVE YEAR PROGRAMS AND ASSOCIATE DEGREE AND TWO YEAR SERVICE PROGRAMS		
ACADEMIC YEAR BEGINNING IN AUGUST	Tuition Fee Charge Guarantee Period	CHARGE PER CREDIT DURING THE PERIOD
2007	2007-2012	45.00
2008	2008-2013	47.00
2009	2009-2014	49.00
2010	2010-2015	51.00
2011	2011-2016	53.00
2012	2012-2017	55.00

Medical Insurance

The amount to be paid for medical insurance may vary to the extent in which the terms of the contract between the University of Puerto Rico and the service supplier change. In the second semester, the medical insurance plan coverage extends until the first day of classes of the month of August.

5. Other Fees

Document Duplicates	\$ 1.35
Copies of credit and certification transcripts	\$ 1.35
Articulated Transfers*	\$33.00
Transfers*	\$33.00
Change of Faculty (Reclassification)	\$20.00
Graduation Quotas	\$27.00
Admission*	\$20.00
Late Registration	\$13.00
Special Permits (System Students)*	\$15.00
Special Permits (Private University Students)*	\$25.00
Night School Fee per Credit*	\$20.00
Course Fee as a Listener	\$33.00

*Late admission, readmission, articulated transfer, and transfer applications will be charged at a rate of 1.5 times the fees that are regularly paid when submitted on time as has been the norm until the present. Each unit will establish a deadline date for accepting late applications.

6. Tuition Payment Exemption

Students under one of the following criteria will be exempt from paying basic tuition (cost per credit):

1. Honor Student*
2. Athlete
3. Child or spouse of an employee of the UPR System
4. Employee of the University of Puerto Rico
5. Band member
6. Choir member
7. Theater member
8. Student representative to the University Board

In order to redeem their tuition payment exemption, students must present the authorization remitted by the Unit or corresponding agency.

*All regular undergraduate students coursing their second, third, fourth, and fifth year which have a 3.50 grade point average or more and whose accumulative academic progress in the Program places them in the top 5% of their class, will be eligible for the tuition payment exemption.

7. Tuition Payment Procedures

- a. Dates
 1. All quotas and fees must be paid during the dates and hours stipulated by the Bursar's Office.
- b. Payment Deferment
 1. Following an evaluation, the Dean of Student Affairs may allow a deferment to the payment of tuition fees to students that for lack of resources are not able to make the total payment of their tuition on their registration date.
 2. The deferment must be requested to the Dean of Student Affairs during the specified dates.
 3. Additional fees to the cost of Basic tuition, such as construction fees, laboratory fees, medical service fees, etc., are not subject to deferment.
 4. If the student does not make the payment of the deferment on the date established by the Dean of Student Affairs, the students must pay a late fee of \$3.00 per credit.
- c. All quotas and fees can be paid in cash using U.S. currency. ATM cards, and credit cards (Visa o MasterCard), and certified checks or money orders for the exact amount and endorsed to the University of Puerto Rico in Ponce, may also be used for payment.

8. Reimbursements

- a. Student who withdraw in the first two weeks of a regular semester or the first week of a summer session have the right to a 50% reimbursement of their basic tuition payment.
- b. No reimbursement of paid fees will be authorized to visiting students or to students that have withdrawn for disciplinary reasons.

All reclaimable deposits or fees which have not been requested by the end of the second semester of the academic year following their payment will pass to the General funds of the University of Puerto Rico.

RETURN OF UNIVERSITY PROPERTY

Before leaving the University, the student must return in good condition, all property belonging to the University including books and equipment used during the year.

STUDENTS IN DEFAULT

Students who owe money to the University will not have the right to request any documentation related to their academic performance; nor the right for deferment of their registration fees; nor to be eligible for any paid or cost free university services or privileges. Following notification, these students will lose all privileges and services until they are not up to date with their accounts or comply with a payment plan. Students in default will be officially notified in writing by the University and will be invited to a hearing. If the student does not comply within five working days, the sanctions previously mentioned will be enforced.



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ACADEMIC REGULATIONS

ACADEMIC REGULATIONS

REGISTRAR'S OFFICE SERVICES

The Office of the Registrar is responsible for coordinating administrative activities for the course selection process, for the filing of all academic official records, for the mailing of grades and transcripts to students, for the certification of graduation requisites, and for the evaluation of the academic process of students according to established regulations. In addition, it processes the following application forms: registration, reclassification, transfer to other Universities, and special permits.

It issues certifications to various agencies, such as: Social Security, Income Tax, Health Insurance Companies, and Housing, and Nutritional Assistance Programs, among others. It also expedites certifications, such as General Point Average Index and graduation certifications.

TRANSCRIPTS

An academic transcript is a confidential document which is only emitted upon the student's request. Certified copies are directly remitted by the University to any agency or institution designated by the student. Transcripts which are emitted to the student are solely for their personal use and thusly noted. Transcripts are issued to third parties only through the written authorization of the student.

REGULAR ACADEMIC PROGRAM

A regular academic program consists of between 12 to a 20 credit program load per semester. Only through the previous consent of the Dean of Academic Affairs can this load be altered, in which case it will not exceed 21 credits.

Summer session students are allowed to take a maximum amount of 7 credits. Among the seven (7) credits, the student may not take a course worth six credits. Students who are graduation candidates in the summer and Honor students can take up to ten (10) credits with the recommendation of the Chancellor, the Coordinator of the Study Program, or the Dean of Academic Affairs.

The number of credits authorized to students of this University studying during the summer in other schools or universities will be governed by the already established norms for the summer session. The program will be subject to the approval of the Dean of Academic Affairs, the Department Chairperson, the Program Coordinator, and the Registrar.

STUDENT CLASSIFICATION

Students are grouped under the following categories:

1. Full-time students: those who take 12 credits or more per semester.
2. Part-time students: those who take a load under 12 credits per semester.
3. Special students (non-degree status) and visiting students: those who attend classes with the authorization of the Dean of Academic Affairs. These students pay special fees and receive no credits for the courses they pursue.
4. Transition students or students with special permits: these are students who belong to another of the main campuses or Regional Colleges of the University of Puerto Rico System and register at the UPR-Ponce Unit. They must be authorized by the Dean of Academic Affairs and registered for one semester. Students who belong to private universities will be allowed to take only two courses.
5. Professional improvement students: are those students with a credit load of no more than six (6) credits seeking professional or academic improvement. The Dean of Academic Affairs is the only official that can allow a credit load which exceeds this amount.
6. Special students: are those students who are university employees (faculty or other) wishing to improve their academic standing and are authorized by the Chancellor to study. Non faculty personnel may register in a maximum of 18 credits per semester. Six of these may be taken during their daily work schedule. Faculty members may take two courses or more during the semester, as long as the amount of credits does not exceed six (6).
7. Other Categories:
 - a. Honor students: full-time students in their sophomore, junior, and senior years with an overall performance that puts them in the top 5% of their classes or have a 3.50 grade point average or above are eligible for tuition payment exemption. The Honor Student Program tuition exemption covers the whole academic year including the summer session.
 - b. Honor Student Association: in order to belong to this association, students must fulfill the following requisites:
 1. To have a 12 credit load or more at the moment of being considered.
 2. To have approved 12 credits or more the semester before being considered.
 3. Minimum grade point average of 3.33.
 4. Admitted transfer students must have approved a minimum of 24 credits at the University of Puerto Rico System before being considered as a possible member of the Honor Student Association; they must also fulfill requisites “a” and “b”.

PARTIAL AND TOTAL WITHDRAWALS

To withdraw from a course is to leave a course during the current session in progress within the period indicated in the Academic Calendar. Withdrawals can be partial or total.

Partial withdrawals occur when a student drops out from one or more courses. A total withdrawal occurs when a student drops out of all courses in which he/she is enrolled.

The deadline for applying for partial withdrawal is ten working days before the last day of classes; to apply for total withdrawal, the student has until the last day of classes of the corresponding academic session.

Procedures:

1. To request a withdrawal form, one for each course in case of a partial withdrawal, or to request the total withdrawal form at the Registrar's Office.
2. To obtain the signatures of all the officials indicated in the form in both types of withdrawals.
3. To personally deliver the withdrawal forms to the Registrar's Office.
4. Withdrawals must be authorized by the course professor (s) and the Registrar.
5. The Registrar will indicate the withdrawal in the student's file by marking a "W".

CLASS ATTENDANCE

Student class attendance is compulsory in the University of Puerto Rico System. Professors establish a contract with the Institution of keeping records of student class attendance in order to fulfill federal guidelines required for students to receive Financial Aid. Professors must have evidence of the dates in which students are absent from class.

Class attendance will be evaluated in intervals of six weeks beginning the first day of class. Class attendance requisites are the following:

Courses that meet three (3) times a week	Maximum of six (6) absences
Courses that meet two (2) times a week	Maximum of four (4) absences
Courses that meet one (1) time a week	Maximum of two (2) absences

The Institution has established the following guidelines regarding the identification of the last date of a student's attendance to a course:

1. Professors have an obligation with the Institution of calling attendance and keeping an attendance roll. Professors must have evidence of the dates students are absent to their classes.
2. If the student has never attended to class without a reasonable excuse for each lecture period, professors are obligated to inform such absences in the preliminary attendance list provided for such purposes. Such students will not be eligible to receive the Financial Aid payment corresponding to the period in which the absences are shown.

3. The Institution will provide students with mechanisms for appealing and revising class attendance reports in cases in which students do not agree with the information offered by the professor (s).

NINTH WEEK MARKING PERIOD

Professors must inform each student about the grade they have up to that point. It is also compulsory that each professor inform each student about their academic progress before the partial withdrawal deadline date arrives. Professors whom up to the previously mentioned date have not fulfilled the requirement of having available at least one student evaluation, will not be allowed to grade his/her students with a grade lesser than a “C” in their course (Certification 1998-99-76 of the UPR in Ponce Academic Senate).

FINAL EXAMS REVIEW PERIOD

An academic recess period of one or two days will be assigned each semester before the beginning of the final test period. Students will have no academic responsibilities in order to allow them time to prepare for their final exams.

FINAL EXAMS

All course final exams will be written unless the nature of the subject matter requires another format. Students that fail to attend a final exam which has been properly announced by the Registrar’s Office will receive a “zero” or “F” as a grade. Meanwhile, an “Incomplete” will be given as the grade of the course*. The test must be taken before the end of the following semester.

GRADING SYSTEM

The Grading system at the UPR-Ponce is as follows:

GRADES		Numerical Value
A	Excellent	4.0 per credit
B	Good	3.0 per credit
C	Satisfactory	2.0 per credit
D	Passing, but deficient	1.0 per credit
F	Failure	0.0 per credit
P	Passing (but not to be considered for academic average).	
NP	Not passing	
W	Authorized withdrawal	
I	Incomplete, provisional grades*	

***Incomplete or Provisional Grades:**

Incompletes are provisional grades granted at the discretion of professors, to students under special circumstances who have been unable to fulfill the course requirements. This grade is computed by adding a “0” for the work not done to the previous grades the students has already obtained throughout the semester. An “Incomplete” grade must be removed before completion of the following academic semester. After the removal of the “Incomplete” grade, the course professor will inform the Registrar’s Office of the final grade. If the professor fails to remove the “Incomplete” grade, the provisional grade will become final.

In the case of six-credit (6) and intensive courses, students are required to remove the “Incomplete” grade before the beginning of the next semester.

An “Incomplete” grade is considered a privilege not a right. Professors are free to use their own judgment in granting an incomplete grade.

The grades of courses taken at other universities other than the University of Puerto Rico will only be transferred (by placing a “P” in substitution of the grade letter) when a student has obtained a grade equivalent to a “C” or more; this includes courses taken under a Special Permit.

GRADE REPORTS

At the end of each semester, the Registrar’s Office informs the students of their final grades. Any student who considers that his/her grade report is faulty or contains any errors should notify the professor as well as the Registrar’s Office during the first week of classes of the following semester.

Students that do not receive their grade report should contact the Registrar’s Office. Students in default will not receive their grade report until they have settled their account.

Final Grade Changes

After placing and informing a grade in the official lists, any alteration to it is considered a change in the grade. Students requesting a grade change to a professor must do so in writing. If the professor accepts having committed a mistake, the correction will be made following the corresponding norms and guidelines (Certification 2001-2002-17 of the UPR-Ponce Academic Senate).

COURSE SELECTION AND REGISTRATION

Academic counseling is the process through which students indicate which of the courses recommended by their academic counselors they want to take in the next academic session. The counseling process takes place during the period stipulated by the Unit for such activities according to the Academic Calendar of each Academic Department.

Registration is the process through which students select the sections of the courses recommended during academic counseling to be taken during the next academic session. Students that do not complete the academic counseling process will not have courses reserved for the next academic session and therefore will not have a registration date scheduled, therefore having to choose their courses and sections the last day of the process.

REPETITION OF COURSES

If a student repeats a course in which he/she obtained a "D" or an "F", only the highest grade will be computed into the student's academic index. Evidence of the lowest grade will be kept in the student's Academic File. The repetition of courses in which a "C" was obtained will only be allowed under extraordinary cases with the authorization of the Dean of Academic Affairs. In the case in which a student repeats a course in which a "C" or a "B" was obtained, both grades will be counted if the grade of the repeated course is "C", "B", or "A", and only when a Graduation Evaluation is done will the highest grade be counted. Meanwhile, both grades and credits will be considered in the computation of the student's general index.

Courses with a "W" are not considered for the academic index. When calculating the index for complying with the requisites of a degree or certification, only the grades of the required and elective courses for the requested degree will be considered.

Regarding Veteran beneficiaries, the U.S. Department of Veterans Affairs, ruled by FRC #38 (Federal Regulation Code), does not pay for the repetition of courses approved with an **A, B, C, or D grade**. The U.S. Department of Veterans Affairs only pays for the repetition of failed courses (F) or courses that require a minimum grade.

ACADEMIC INDEX

The academic index is the numeric expression representative of the achievement gained by the student. All grades received in courses that the student has completed at the Institution are considered. It is calculated by dividing the total amount of honor points by the amount of credits accumulated including the course(s) in which the student has failed.

General Index

It is calculated by taking in consideration all grades in courses the student has completed within the institution.

Graduation Index

It is calculated by including all grades obtained in required courses according to the curriculum for which the student requested graduation.

Specialty or Concentration Index

It is calculated by taking in consideration the grades obtained in specialty courses of the degree requested.

Academic Index for Retention

The minimum student academic index at the end of each academic year should be the following:

ACADEMIC RETENTION INDEX TABLE
(Effective December 1, 1986)

	0	1	2	3	4	5	6	7	8	9
0	-	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.25	1.33
10	1.40	1.45	1.50	1.54	1.57	1.60	1.63	1.65	1.67	1.68
20	1.70	1.71	1.73	1.74	1.75	1.76	1.77	1.78	1.79	1.79
30	1.80	1.81	1.81	1.82	1.82	1.83	1.83	1.84	1.84	1.85
40	1.85	1.85	1.86	1.86	1.86	1.87	1.87	1.87	1.88	1.88
50	1.88	1.88	1.88	1.89	1.89	1.89	1.89	1.90	1.90	1.90
60	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95
70	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95
80	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95
90	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95
100	2.00	2.00	2.00	2.00	2.00	-	-	-	-	-

The number of credits is the sum of the amounts that appear in the first row and the first column (area within two bars). The student will be suspended for academic deficiency if he/she does not fulfill the minimum index requirement at the end of each academic year (**Certification 2002-2003-32 of the UPR-Ponce Academic Senate**).

PROBATIONS AND SUSPENSIONS

(Certification 2002-2003-32 of the UPR-Ponce Academic Senate)
(Certification 2006-2007-09 of the UPR-Ponce Academic Senate)

Retention Index Guidelines:

1. A retention index is adopted in compliance with the number of credits coursed by the student, as the Academic Retention Index table that forms part of this document establishes.
2. At the end of each semester, students whose accumulated academic index is lower than the minimum retention index required will be notified about their situation through their grade report or through an official letter.
3. At the end of each academic year, the corresponding accumulative and retention indexes of each student are compared. If the accumulated index is lower than the retention index, a suspension notification for academic deficiency is included in the student grade report or through an official letter. This is a general application guideline and includes those students that are coursing studies during one semester of an academic year.
 - a. When the accumulated index is lower than the retention index by a margin that does not exceed two tenths (0.20), the student will be allowed to matriculate on a probation basis during the following academic year. The student must complete a form at the Registrar's Office so that the probation terms can be certified by the Registrar.
 - b. When the accumulated index is lower than the retention index by a margin greater than two tenths (0.20), the students will not have the right to probation and will be suspended, having to remain out of the University for one academic year.
4. If a suspended student, whose retention index does not exceed three tenths (0.30), considers that he/she has a justified cause for having a deficient academic index, the student may request the Academic Achievement Committee (AAC) to establish a reconsideration process to grant the student the right to be on probation. The student must initiate this process by meeting with his/her counselor who will inform the student about the necessary steps to take.
5. After interviewing with his/her counselor, the student submits through the Registrar's Office an official probation application accompanied by evidence sustaining his/her case which is to be addressed to the Academic Achievement Committee (AAC). The AAC will evaluate the petition, interview the student, and make the corresponding recommendations to the Dean of Academic Affairs for final approval. The Registrar's Office will notify the decision to the student. If the suspended student applying for probation is not satisfied with the decision of the AAC, he/she may apply to the Chancellor for reconsideration.

6. In extraordinary cases, with recommendations from the Department Chairperson, the Dean of Academic Affairs, and the Dean of Students Affairs, requests for granting probation to students with margins exceeding three tenths (0.30) or lower than the retention index may be considered (Certification 2006-2007-09, UPR-Ponce Academic Senate).
7. The student that is suspended due to academic deficiency must be separated from the University of Puerto Rico during the following academic year before being eligible for readmission under a probation status and no courses taken in any institution during this period will be accredited. After the year has ended, the student may apply for probation.
8. The probation period will be one academic year. The Academic Counselor will structure the Academic Program of the student following the guidelines indicated by the Academic Achievements Committee (AAC).
9. The program of a student on probation must be adjusted to the following guidelines:
 - a. The student will repeat courses with a “D” or an “F” as many times as necessary to achieve the minimum retention index with authorization from the Academic Achievement Committee or the Dean of Academic Affairs.
 - b. The student will not take more than 15 credits or less than 12 per semester or trimester. In exceptional cases, where less than 12 credits or more than 15 are required, the Academic Achievement Committee or the Dean of Academic Affairs must authorize the student’s program.
 - c. Credits must be approved with a minimum grade point average of 2.0 or reach the retention index.
 - d. The student will not partially withdraw without previous authorization from the Department Chairperson and the Academic Achievement Committee. The student will structure his/her schedule following the guidelines given by the Dean of Academic Affairs.
10. If for special circumstances the Academic Achievement Committee authorizes a student to withdraw from all courses, the student may request his/her probation status to be restated through filling a readmission application. This will be for two semesters if the total withdrawal occurs in the first semester. If the total withdrawal occurs in the second semester, the restatement will be by semester, if the Academic Achievement Committee approves it.
8. A regular student on probation that even though complying with item 6, does not reach the minimum retention index, will continue on probation until the Academic Achievement Committee authorizes his/her release.
9. A regular student in probation that does not comply with item 6 will be suspended again during the next academic year.

10. If a second or third suspension takes place, the student has the option of returning to study on probation after a full academic year has elapsed.

11. If a fourth suspension takes place, the student will be **permanently** separated from the institution.

Note: The U.S. Department of Veterans Affairs, ruled by FRC #38 (Federal Regulation Code) does not pay for the repetition of courses approved with an **A, B, C, or D grade**. The U.S. Department of Veterans Affairs only pays for the repetition of failed courses (F) or courses that require a minimum grade.

CASES OF READMISSION-TRANSFER ON PROBATION

1. If it is not his/her fourth academic suspension, the student may apply at the University of Puerto Rico in Ponce for an on-probation readmission-transfer once the suspension period for academic deficiency has elapsed and the student has completed the requisites of the Institution that established the suspension.
2. Suspended students interested in applying for a readmission-transfer to other Units of the System of the University of Puerto Rico, may do so if they obtain a written certification from the receiving Unit indicating their disposition to receive and evaluate the student's case.
3. The reasons of the University of Puerto Rico in Ponce for considering an on-probation readmission-transfer application are:
 - a. change of concentration or study course
 - b. justified residence changes
 - c. personal and family responsibilities that prevent the student from returning to his/her original Unit
 - d. medical treatment
 - e. court determination in a personal case
4. This Institution, as the receiving Unit, will not admit suspended students when admission to other students with better academic qualifications has been denied for lack of space or availability.

CREDIT CONVALIDATION

Any students having completed a transfer, must apply to the Chairperson of the Department he/she belongs to for a credit convalidation. The convalidation of courses is guided by Certification 2002-2003-34 of the Academic Senate of the UPR-Ponce-General Criteria for Course Convalidation, which establishes the following criteria:

1. General Criteria for the Convalidation of Courses from other Units of the System of the University of Puerto Rico.

The following guidelines regarding the convalidation of courses from other Units of the System of the University of Puerto Rico are established:

- a. Courses to be convalidated from other Units of the System of the University of Puerto Rico that possess the same codification than a course of the University of Puerto Rico in Ponce will be automatically convalidated. The uniform codification of the University System guarantees that the course fulfills the criteria of uniformity of description and curricular content.
 - b. If the course does not have the same codification, the guidelines for convalidation established by other Higher Education Institutions (listed in criteria # 2) will be followed.
2. General Criteria for the Convalidation of Courses from other Higher Education Institutions of Puerto Rico:

The following general criteria are recommended for the convalidation of courses from other Higher Education Institutions of Puerto Rico.

- a. The following criteria will be evaluated: if the Institution is bonafide and accredited by the Council on Higher Education as well as by the Middle States Association of Colleges and Schools Higher Education Commission. If the institution is not accredited, courses from the institution will not be convalidated.
- b. The course description and content of the course to be convalidated will be evaluated just as it is presented on the course syllabus so that it, at least, contains 75% of the course content offered by the University of Puerto Rico in Ponce. In those cases in which obtaining the course syllabus becomes difficult, the Catalog of the Institution will be used.
- c. Equivalence between a set of courses with one course and/or a set of courses of the University of Puerto Rico in Ponce may be established as long as the given set of courses represents the 75% mentioned in criteria “b”.
- d. Only courses approved with a “C” or more will be convalidated.
- e. Only up to 50% of the course credits of the Specialty the student is applying to will be convalidated.
- f. A course lower in credit value will not be equivalent to one of greater credit value, except when the number of contact hours is equal or greater than the number of contact hours of the course for which it is going to be convalidated. In such cases, the students will be required to complete the number of credits by taking higher codification courses in the area of study.

- g. Each Academic Department will establish if the equivalence of a sequence course will be established in its totality or the equivalence will be established for each course of the sequence.
 - h. In the case that sequence courses are approved in their totality, the student must have approved both parts of the course with a “C” or more.
 - i. The course convalidation form must be accompanied by an official credit transcript of the university from which the student comes from.
 - j. In the case of new enrollment students at the University of Puerto Rico in Ponce, the recommendation for course convalidation will take place at the moment the student is considered for admission.
 - k. The credit convalidation will be official after the student is officially registered in courses at the Institution.
 - l. The Departmental Curriculum Committee must be consulted in cases in which there is doubt regarding the convalidation of Department courses.
 - m. All convalidated courses will appear on the students credit transcript with a letter “P” (pass or approved) and will not have honor points.
 - n. Accepted credit convalidations will be based on courses offered at the University of Puerto Rico in Ponce. Courses that do not have an equivalent at the University of Puerto Rico in Ponce can be used to fulfill free electives if the courses are included in the Academic Program. The student that is in a transfer program and has approved courses that can be convalidated at the receiving Unit must transact his/her convalidation application at the receiving Unit once he/she is accepted.
3. General Criteria for the convalidation of courses from Higher Education Institutions out of Puerto Rico.

For Higher Education Institutions out of Puerto Rico the guidelines described below will be followed:

- a. If the institution is located in the United States of America, it must be verified that the institution is accredited by one of the accreditation organizations recognized by the ***Council on Post-Secondary Accreditation (COPA)***. If the institution is not accredited, courses from the institution will not be convalidated.
- b. If the institution is located in another country other than the United States of America, it must be verified if the institution holds agreements of collaboration with the University of Puerto Rico regarding student exchange or if it is a bonafide institution recognized by the government, and possesses accreditation mechanisms for their programs and services, be it internal or external. If this condition is not met, courses from the institution will not be convalidated.

Courses will be convalidated following the criteria established in the previous paragraphs. In any case in which the grade system of a Higher Education Institution out of Puerto Rico is not equivalent to that of the University of Puerto Rico in Ponce, the Dean of Academic Affairs will have the responsibility of establishing the pertinent equivalencies so that it is observed that only courses approved with a “C” or more are convalidated.

AUTHORIZATION TO TAKE COURSES IN OTHER INSTITUTIONS

A Special Permit for the purpose of studying at another Unit for a fixed period of time with aims to return to his/her original Unit to continue studying will only be granted to students with satisfactory academic progress. The student must have coursed at least one semester at the original Unit before being granted a Special Permit. In exceptional cases, the Dean of Academic Affairs may authorize permits to students that do not fulfill the previous requirements. As a norm, 50% of the courses required for the degree may be taken while under a Special Permit. For a summer session, up to a maximum of seven (7) credits may be authorized. In cases that merit it, the Dean of Academic Affairs may authorize up to ten (10) credits.

The Special Permit application form will be made available and will be transacted through the Registrar’s Office. For the request to be valid, it must be authorized by the Department Chairperson, the Dean of Academic Affairs, and the Registrar, and must include the student’s accumulated grade point average and the number of credits approved. The student may have a maximum credit load of 15 credits and approval of the request will depend upon the space available in the courses requested. The student will be responsible for transacting a substitute Special Permit when he/she is not enrolled in the courses stipulated by the original Special Permit. Students from accredited University Institutions other than the University of Puerto Rico may apply for a Permit at their institution for a maximum of two (2) courses and its approval will be subject to the space available in the courses requested. A maximum of two (2) permits will be granted. It must be made clear that the final approval is subject to the availability of offer and space at the Unit or receiving Institution.

GRADUATION

Requisites:

1. To have approved the concentration as well as the general curriculum courses of the academic program selected by the student with a minimum grade point average of 2.00. Students with a grade point average between 3.0 and 3.32 will graduate “cum laude” (with honors); students with a grade point average between 3.33 and 3.99 will graduate “magna cum laude” (with high honors) and those which have an grade point average of 4.0 will graduate “summa cum laude”. To be eligible to graduate with honors or high honors, the student must have approved 50 percent of the credits required for graduation at the Institution.
2. To have approved the last 28 credits required in the final phase of his/her studies at the University of Puerto Rico in Ponce. In exceptional cases, this rule may be reconsidered

3. through the mutual agreement of a committee formed by the Program Chairperson or Coordinator, the Dean of Academic Affairs, the Dean of Student Affairs, and the Registrar.
4. To have settled all debts contracted with the institution.
5. To officially request a requisite compliance certification by filling the corresponding petition at the Registrar's Office at the beginning of the semester or period in which the academic requisites for graduation are to be completed.
6. To have been recommended for the degree by the corresponding faculty.
7. To attend the graduation ceremony unless the Dean of Academic Affairs has excused him/her.
8. Not to be under disciplinary action.

The University celebrates a graduation ceremony once a year after the second academic semester. All degrees are conferred on this occasion exclusively. The candidate that has complied with the requisites during the summer session or the first semester may request a certification of compliance of requisites.

Automatic Graduation

1. The Institutional Units will graduate all students who fulfill their academic requisites for the degree or program in which they are classified and will require of students the payment of the corresponding graduation quota.
 - a. Nevertheless, it is established that in the case that a student has been admitted in order to complete other curricular options, for example, a curricular sequence or a second concentration, and that also shows satisfactory academic progress, may be allowed reasonable additional time to complete it before proceeding to graduate the student from the Program from which he/she is classified.
2. The Departments and Faculties which grant the Academic degrees will be responsible for collaborating with the Registrar's Office in the evaluation and follow up of the possible graduation candidates in order to fulfill the previously mentioned criteria.

Change in Requisites:

The University reserves the right to make changes in the different Programs and the requisites for a degree; but, by general rule, the student should graduate according to the program in effect at the moment of admission to the Institution. However, students that do not comply with the requisites of the degree in the time the program states, as well as readmitted students, will follow the regulation applicable to the class in which they will graduate.



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STUDENT ACTIVITIES AND SERVICES

STUDENT ACTIVITIES AND SERVICES

The Deanship of Student Affairs of the University of Puerto Rico in Ponce is committed to the holistic development of the students, from the psychological to the intellectual as well as the personal aspects. It develops effective and efficient services through different offices, such as Orientation and Counseling—which counts with an Educational and Occupational Resource Section, Medical Services, Financial Aid, the Employment Office, Lodgings (off-campus), and Veteran Services, the Office of Social and Cultural Activities, Athletic Activities, Student Associations, the Student Council, the Bookstore, and the Choir and Band Associations. Within the objectives of the Dean's Office are the expansion of the educational dimensions and social development of the students through providing social, cultural, educational and athletic activities that fit the academic facets.

PROGRAMMATIC FINANCIAL AID OFFICE

The main function of the Financial Aid Office is to help students in the solution of financial hardships that could affect their academic achievement. For such reason, this Office counts with federal funds, state funds, and private funds.

Students that have demonstrated the need of financial aid will receive the help through grants, loans, work, or a combination of them. This will vary according to the needs, study expenses, and available funds.

The University of Puerto Rico in Ponce has determined to pay student grant money in two (2) installments that correspond to an advance payment of \$500 in August and January, and one (1) payment of the remaining money according to the amount assigned for the semester.

To be eligible to receive these benefits, the student must attend to classes regularly.

PROCEDURES FOR APPLYING FOR FINANCIAL AID

Students who presently receive financial aid, as well as new enrollment students, will receive an envelope in the mail towards the middle of the second semester containing all the material regarding financial aid together with an appointment date and time in which the student must appear in person at the Financial Aid Office. In such day, the student must bring all the documents requested as may apply to the student's situation, including confirmation that he/she completed the Free Application for Federal Student Aid (FAFSA) through the Internet or a confirmation response received through the mail.

GENERAL REQUISITES FOR ALL STUDENTS INTERESTED IN RECEIVING FINANCIAL AID:

1. To have been admitted to the University of Puerto Rico and to be enrolled in a degree aimed Academic Program.

2. To be an American citizen or a permanent resident.
3. To be eligible to receive Financial Aid according to the Title IV Amended Federal Law criteria.
4. To fulfill the Satisfactory Academic Progress Norm as established by Certification Number 44 of the Board of Trustees.
5. If a male, to be registered in the Selective Service System.
6. To submit all documentation required by the Financial Aid Office concerning household income and other requested documentation.
7. Not to be in default of Student Financial Aid or Federal Loan Programs.

DOCUMENTS THAT MUST BE PRESENTED AT THE APPOINTMENT DATE

Bring the household income evidence **that applies to his/her situation:**

In case of divorced parents, a copy of the **Declaration of Divorce**.

IF HE/SHE FILES TAXES (STUDENT AND/OR PARENTS)

A properly signed Income Tax Form for the corresponding year. The latter does not have to be certified. If both parents file taxes, the student must bring a copy of both.

IF HE/SHE DOES NOT FILE TAXES

Students and/or parents that do not file taxes must fill the form (**Model SC 2781**)- Certification for Reasons Why the Tax Payer is not Obligated to File an Individual Income Tax Form.

This form can be obtained at the Taxpayer Customer Office of the Department of the Treasury in Ponce, Caguas, San Juan, Mayagüez, and Bayamón. They must also complete the **Information Declaration Form** included in the envelope.

Certification(s) of benefits received for the corresponding year:

- a. Social Security (1099-SSA Form)
- b. ASUME (Child Support)
- c. Department of Labor -Unemployment Certification (Form 651-A)
- d. Nutritional Aid Program (P.A.N.) It must indicate the total amount received for the corresponding year.
- e. Veteran (Certification)
- f. Compensations
- g. Non-taxable Retirement Pensions
- h. Wages and Tax Retention Statement, 499-W2 (pink copy)

- i. Others: In cases in which the household income can not be corroborated through an official document, the applicant must indicate the type of job or the source of income in the Information Declaration Form

TYPES OF FINANCIAL AID

I. Grant Programs

A. Federal Pell Grant

The Federal Pell Grant is offered in our Institution to undergraduate students that are eligible according to established requirements. The credits that students take must be requisites for graduation (degree credits).

The amount of the grant that is offered will depend on the cost of studies, the number of degree credits per semester, and the Estimated Family Contribution (EFC) that the office of Federal Education assigns, based on the information submitted by the student in the application.

B. A.C.G. Federal Program: for American citizens

This program offers financial incentive to first and second year students that fulfill the requisites for being recipients of Title IV Program benefits.

First year students must have completed a rigorous study program* or have approved at least two advanced level tests with a minimum score of 3.

Second year students must have completed their first year with a grade point average of 3.00 or more and have approved 24 credits.

****This means that in High School the student must have approved:***

1 year of Spanish; 3 years of Mathematics; 3 years of Sciences; 3 years of Social Studies; 4 years of English (including 9th grade).

The student must bring a certification form provided by the Financial Aid Office to the school he/she coursed his/her last High School year.

C. Federal Program SMART: for American citizens

Financial aid for third and fourth year student that fulfill the general requisites of the Financial Aid and Title IV Programs and that also fulfill the following requisites:

- a. Grape Point Average of 3.00 per semester
- b. To be registered full time.

- c. To be in a Science, Engineering, Mathematics, Technology, or Computerized Information Systems concentration.
- d. To have approved the necessary credits to be classified as a third or fourth year student.

D. Federal Supplemental Educational Opportunity Grant (FSEOG)

It is granted to eligible undergraduate students with proven financial need. The concession of this grant is based on the determined EFC and the degree credits the student is enrolled in; until the available budget is exhausted.

E. LEAPP Grant (Leveraging Educational Assistance Partnership Program)

It consists of contributions from Federal funds assigned with the condition that these are combined with State funds in order to help students in need of financial aid. The grant is conferred by the Council on Higher Education after the candidates are recommended by the different Campuses and Units.

F. Legislative Grant

Provides help to eligible undergraduate students and complements other aids. The concession of the grant will be based on the financial need of the student, the determined EFC and the degree credits the student is enrolled in; until the available budget is exhausted.

G. Private Grants

These grants are assigned by diverse firms and private agencies that provide funds for student financial aid. Some donors delegate the selection of the candidate to the Institution and it analyzes the established norms and other Aid programs.

II. STUDY AND WORK PROGRAM

This Program offers employment to students with financial needs and which have an academic load of no less than 6 degree credits per semester. The hourly wage will be determined by the Financial Aid Administration Central Office. At the moment of determining the amount of hours the students will work, their study program as well as their academic achievements, health, and available funds, will be considered. The students could be employed in any department, division, or office of the Unit.

This program provides employment inside and outside the Institution, offering services to the community, assigning students to the Adelina Coppin Alvarado Library, the Museum of Art of Ponce, and the LEO Summer Camp.

III. PROCEDURES FOR APPLYING TO THE STUDY AND WORK PROGRAM

To be considered as a participant of the Study and Work Program during the academic year, students should stop by the Financial Aid Office during the announced dates. It is important to point out that spaces are limited and depend on the job positions available at the moment the students apply.

Students interested in participating in the program during the summer must visit the Office at the beginning of the month of March to be evaluated. The work offered will take place during the month of June. If the student was a program participant during the academic year, they cannot request work for the summer.

To qualify the student must:

1. Have handed the Pell Grant documents on time.
2. Fulfill the satisfactory academic progress norm (Not to have been reconsidered for the Pell Grant).
3. Not receive Veteran or Vocational Rehabilitation benefits
4. Have a scholarship index (EFC) lower than 600.

IV STAFFORD STUDENT LOAN PROGRAM

The purpose of this Program is to award long-term loans with low interests to students with financial needs. These loans are offered to eligible students that request them and fulfill the requisites for the loans to be granted.

PROCEDURES FOR APPLYING FOR STAFFORD STUDENT LOAN

To apply for federal loans, students must attend to one of the various orientations given throughout established dates during the first semester. The orientations are compulsory; thus, if the student does not attend to one of these orientations, he/she will not be able to request a loan.

Students that are not eligible to receive the Pell Grant must fill the corresponding documents at the Financial Aid Office in order to be considered as a possible loan recipient.

Requisites:

1. To have completed and handed on time the Pell Grant documents.
2. To attend to one of the Stafford Loan orientations.
3. To be a full time student (registered in 12 or more degree credits).
4. To fulfill the Satisfactory Academic Progress Norms established by Certification Number 44 of the Board of Trustees.
5. To not be a student with a Pell Grant reconsideration.
6. To maintain an academic grade point average of 2.00 or more.
7. The student must show financial need.

ORIENTATION AND COUNSELING DEPARTMENT

The Orientation and Counseling Department helps students develop their potentialities to their maximum by means of an educational process consisting on providing individual and group orientation and counseling in the personal, educational, and vocational areas. It has as its purpose to help students know their abilities and to recognize their limitations. This orientation and counseling process guides them in discovering the evolution of their lives and careers, and helps them to organize and to improve their study plans, to develop decision making skills, and to identify and to know the Academic Programs and their requisites. It also helps them to recognize and to manage their personal situations.

The basic philosophy of the Orientation and Counseling Department is to help students achieve their maximum holistic development, in such a way that it benefits the students as well as the society in which they live.

Description of the Educational Process:

Personal Counseling

It is a dynamic process between the student and the counselor, to enable students to apply newly acquired self-knowledge and help them to get to know the world that surrounds them in order to discover the meaning of life and make decisions during the process of solving the problems that life imposes on them. The emphasis is on allowing students to make their own decisions and take responsibility for their actions.

Educational Counseling

This service helps students in the development of necessary skills and resources that will allow them to satisfactorily fulfill their graduation requisites. Orientation regarding: Bachelor and Associate Degrees, Transfer Programs, Articulated Transfer Programs, Reclassification, Readmission, Special Permits, Total and Partial Withdrawals, among others, are given. Also, students are given orientation regarding Graduate schools, within and outside of Puerto Rico, and applications for the admission tests of these schools are provided.

Planning your Life and Career

So that students can carry out an adequate vocational selection, individual interviews and interpretation of inventories that identify their vocational interests and academic preferences are offered and administered. Realistic information concerning occupational perspectives, demand and offer in the labor market, and the advantages and disadvantages of different work fields are provided.

The students become acquainted with the skills, requirements, and abilities that each one of the occupations requires. They also receive orientation on how to carry out a job interview, and on writing a resume and putting together a professional portfolio.

“Career Center”

The Career Center helps students to prepare for the work-related world of which in the future they will be part of. Here the student can find: Catalogs from University Institutions of Puerto Rico and the United States, occupational files, occupational guides and dictionaries, graduate school entrance exam applications, and access to the Internet, among other things.

Follow-Up

It consists on evaluating students’ adaptation after the elapse of a year, from one course to another, and in different circumstances of their student life.

EDFU 3005 (Seminar of Personal Orientation and University Success)

This seminar is offered to freshmen students during their first semester at the Unit. It facilitates the transition from High School level to the University level. The students know their academic, personal, and vocational responsibilities when beginning their university life. The orientation helps them evaluate their decisions, anxieties, and needs.

Psychological Services

The primary services offered are: clinical evaluations (by means of interviews, clinical observations, and records) and psychological treatment (by means of psychological counseling or psychotherapy). After being informed about the confidentiality of their records, students sign a consent form in which they establish they accept the services voluntarily. No psychometric evaluations (of intelligence) or psychological evaluations are carried out since the priority of this Office is to offer treatment services. Secondary prevention services consisting of chats, conferences, and workshops regarding Clinical Psychology are offered. These services are gratuitous and students do not need to be referred to request them.

Student Organizations

The Department has two student organizations which have Professional Counselors as coordinators: The Counselor Student Organization and the Student Association “*Derribando Barreras*”.

Other Services:

Student Tutor Project

The teaching-learning process is facilitated to students in an atmosphere of ease and trust. Tutoring concerning Mathematics, Sciences, Accounting, and English, among others, is offered. Tutors that qualify are incorporated into the Study and Work Program. Others offer tutoring on a voluntarily basis.

STUDENT OMBUDSPERSON

(Certification 2005-2006-32 of the Board of Trustees)

The University of Puerto Rico, committed to the use of dialogue, of communication, and of mediation as fundamental tools for civilized coexistence within the University community, affirms, as an expression of institutional policy, that Student Ombudsperson services must be offered at the Unit.

The essential function of the Student Ombudsperson Services is to assist any type of lawsuit that may affect the student educational process. Its goal is to assure that students receive fair and reasonable treatment in their relationships with the authorities and officials of the University of Puerto Rico in Ponce. To such effects, it serves as mediator, intercessor, and conciliator between the Student community and the other components of the University community. Although the Student Ombudsperson Office does not have the power to make decisions, it has the responsibility of promoting or recommending speedy and impartial solutions to situations that can generate other conflicts, by establishing dialogue between all the parts involved. Its main purpose is to guide, to educate, and to proactively advise the University community regarding the duties and the rights of students.

The Student Ombudsperson Services should be offered in such a way that they are accessible to all the students at the institution, and show a clear attitude of neutrality before the claims of all parts involved. The services should also be characterized by respect to the confidentiality as well as the privacy of the people involved, by being free of bias, reason for which the Student Ombudsperson Services must not be controlled by any given sector of the University community.

MEDICAL SERVICES

The Medical Services Office assists and cares, from a medical point of view, for the physical and mental health of students. It offers ambulatory and first aid services **to all students even if they do not have the medical plan offered by the University.**

To obtain services, students may visit their private doctor and present the Institution's student medical plan card or a certification that will be provided to them by the Medical Services Office. In the event that a visit to an emergency room becomes necessary, students can receive medical services by just presenting their registration form and student identification.

Other Services Offered by the Medical Services Office:

Certificates are extended in the following cases:

1. To authorize withdrawals for reason of illness
2. To excuse the absence(s) of a student if he/she is sick and has been treated at the Office.

The student medical plan covers from the first day of classes until the day before the first day of classes of the following semester.

The health policy covers the following services:

1. Hospitalization
2. Laboratories
3. Radiology
4. Consultation with specialists
5. Emergency room
6. Surgical procedures

Optional Coverage

1. Pharmacy
2. Dental
3. *Major Medical*

FAMILY PLANNING

By means of a proposal from the Medical Sciences Campus, in coordination with the Quality of Life Office, Family Planning services are being offered through the Medical Services Office. These services are offered three days a week by specialized personnel consisting of a social worker, a gynecologist, a nurse, and a student which five days a week promotes the services in the campus.

CULTURAL AND SOCIAL ACTIVITIES

The main objective of this Office is to serve as an effective tool to supplement the academic formation of students. To achieve this goal, it organizes concerts, conferences, art exhibits, recitals, variety shows, plays, book presentations, movies, and other activities that foster the cultural and intellectual development of students and the university community in general.

Another objective of this Office is to stimulate students that possess artistic talent to develop it by means of their participation in activities that encourage in them the desire to make better use of their leisure time. The following institutional activities are presented annually: the Voice Festival and two Masquerade Theater Company presentations.

The events organized are open to the community of Ponce and neighboring towns in an effort to create through the Fine Arts strong friendship and collaboration ties. Collaboration is also established with other university institutions which are dedicated to fostering cultural activities to promote a greater participation of the community in general.

The University of Puerto Rico in Ponce has a theater and an auditorium for the purpose of cultural presentations.

ATHLETIC ACTIVITIES

The Athletic Department encourages student athletes to participate in sport activities that can have a formative effect in their lives as well as enhance all academic facets. The competition activities are carried out under the direction of the Intercollegiate Athletic League (LAI). Our commitment is to exalt the red and black colors that represent us. Services are offered to all student athletes and all members of the university community wanting to support sports and to enjoy sport activities that promote healthy lifestyles.

The University of Puerto Rico in Ponce owns the Víctor Manuel Madera Multiple Use Building with indoor volleyball and basketball courts, a weight lifting gym, two tennis courts, and one outdoor basketball court. In order to develop the academic and sport capacity of our students, collaboration with the Athletic Therapy Program is coordinated so that athletic activities and facilities serve as scenarios for their clinical practice.

As part of the essential services, there exists the “*Entre Atletas*” Program in which tutoring for and by student athletes is offered.

Forever Red and Black!

ROGELIO’S

The main objective of Rogelio’s in our Institution is to provide a healthy environment in which our students can socialize and enjoy *al naturale* during their leisure time. It also seeks to foster and support a balance between the academic and the personal life of our students through the celebration of recreational activities.

At Rogelio’s, students are offered a variety of services such as:

- Use of the Internet and wireless Internet service for laptops
- Video games
- Billiard tables
- Domino tables
- *Ping pong* tables
- Movies and musical video presentations
- Soft drink and snack bar

Students not only can enjoy their leisure time in a relaxing and entertaining manner but may have group gatherings for the discussion of class assignments. If you are a student who likes to study with music on, you will be at the right place.

Forever Red and Black!

EXTRACURRICULAR ACTIVITIES

Lodging Service Office

These services consist of offering information concerning lodging facilities which are registered at the Office. The lodging facilities registered are exclusively those that fulfill and are governed by the requirements and regulations established by the Permit Office of the Municipality of Ponce as well as the Health and Fire Departments. Their prices fluctuate according to the physical facilities, available space, and services offered. The Office of Permits has regulated the student lodging business by means of requiring a Lodging Operation License.

Employment Services Office

This Office provides information regarding full time and part time employment opportunities. These services are promoted in coordination with private, industry, banking, and commerce sector employment offices as well as other employers of our community and the Island. The Office provides job applicants with interview techniques and etiquette, orientation on how to write a resume, and information regarding available employment opportunities at the local level and abroad.

The fundamental goal of this Office is to maintain a close relationship with the Industry, Banking, and Trade world markets for the benefit of our students and alumni. These services are available on a year round basis.

Services and Benefits for Veterans and Members of the Reserve and National Guard of Puerto Rico

The University of Puerto Rico in Ponce is authorized by the Veterans Administration Approving Agency (VAAA) to enroll veteran beneficiaries as well as Puerto Rico Reserve and National Guard members.

The Official in charge of the Veterans Office, ascribed to the Deanship of Student Affairs, collaborates with the U.S. Department of Veterans Affairs in designing the corresponding forms and certifications for eligible people to receive Study benefits according to Title 38, Code of USA, Chapters 30-(New GI Bill), 31-(Vocational Rehabilitation Program), 32-(VEAP Program), 34-(Educational Assistance Program), 35-(Survivors and Dependents Educational Assistance), and 106-(Educational Assistance for Members of the Reserves or National Guard of Puerto Rico).

Eligible students must make themselves be known in order to receive orientation regarding Study Programs and the benefits offered by the U.S. Department of Veterans Affairs.

The U.S. Department of Veterans Affairs, ruled by FRC #38 (Federal Regulation Code) does not pay for the repetition of courses approved with an **A, B, C, or D grade**. The U.S. Department of Veterans Affairs only pays for the repetition of failed courses (F) or courses that require a minimum grade.

QUALITY OF LIFE OFFICE

The University of Puerto Rico, aware of the serious problems that affect our society, established a Quality of Life Office in each of its Units, all located at their corresponding Student Center.

The main goal of the Office is to promote healthy lifestyles within the university community. Its commitment is to establish security in our campus, so that students can fulfill their educational objectives.

Therefore, the Office has developed a working plan which includes activities to educate and guide all members of the university community on the prevention of the use and abuse of drugs and alcohol, on the prevention of crime and sexual assault, domestic violence, stalking, and on campus security , among others. This strategies and guiding principles help students to face diverse situations with more efficiency and to make the best decisions possible.

The Quality of Life Office extends an invitation to all students to become part of its community which spreads the message of prevention to the entire Campus; a community which enjoys life in a natural way without alcohol and without drugs.

STUDENT COUNCIL

The Student Council is an organism that represents the Student body of the University of Puerto Rico in Ponce. This organism has been created by law and its mission is to facilitate the expression of the Student body and voice their concerns. Their members are chosen by the students, according to established procedures. The Council organizes activities that promote a healthy environment for student coexistence, which in turn enhances their academic performance. The Student Council is the link between students and the administration; and it contributes with ideas for the optimal operation of the Institution and the development of its leaders.

Student Participation Representative Structures

Departmental Representatives
Academic Senate Representatives
Administrative Board Representatives
University Board Representatives
Board of Discipline Representatives

STUDENT ORGANIZATIONS

To fulfill Student Regulation Guidelines and to offer our Student body the opportunity to develop to its maximum its capabilities for leadership, responsibility, understanding, and cooperative spirit, all for the sake of the collective wellbeing, the University of Puerto Rico in Ponce officially sponsors and recognizes student organizations. In order for these to achieve their accreditation, the organizations must follow the procedures established by the Deanship of Student Affairs. Among the benefits for being an accredited organization is the right to use campus physical facilities for the celebration of their activities according to current regulations.

These organizations promote: social, cultural, academic, departmental, athletic, and religious interests, among others.

A list of accredited organizations follows:

- Alpha Computer Association
- American Marketing Association
- Cheerleader Association
- Student Band Association
- Accounting Student Association
- Choir Student Association
- Finance Student Association
- Forensic Psychology Student Association
- Psychology and Mental Health Student Association
- Athletic Therapy Student Association (AETA) for its acronym in Spanish
- Physical Therapy Student Association (AETFI) for its acronym in Spanish
- Honor Study Program Student Association
- Alumni Association
- Office Systems Association
- Mathematics Student Association
- Cultural Circle *Guateke*
- Pre-Medicine Circle
- Literary Circle *Esencia y Palabra*
- Chemistry Club
- University Christian Youth
- Counseling Student Organization
- *Derribando Barreras* Student Organization
- Phi Beta Lambda
- Theater Productions *Mascarada*
- Athletic Society
- Astronomy Society
- Biology Honorary Society
- Society for the Human Resources Management

MUSICAL ORGANIZATIONS

Students with musical talents can be members of different musical groups such as the Concert Band, the Concert Choir, the College Orchestra, or the Keyboard Group. Students interested in participating in one of these groups must attend to an audition in which the student is evaluated. It is a requirement that musical groups meet to rehearse three or four times per week. These groups are to participate in diverse activities within and outside of the University.

BOOKSTORE

The Bookstore of the University of Puerto Rico in Ponce is managed by the University Services Cooperative (SUCCOOP). Its main goal is to provide at competitive prices the text books and educational materials necessary for the teaching of the array of courses offered at the Institution.

It also has miscellaneous merchandise with the UPR-Ponce emblem for sale. Its service hours are Monday through Thursday from 8:00 a.m. to 4:30 p.m. and Friday from 8:00 a.m. to 3:00 p.m.

CAFETERIA

The Cafeteria of the University of Puerto Rico in Ponce is operated by a cooperative organized by faculty and non faculty employees of the Institution (SUCOOP). It offers varied and nutritious foods at reasonable prices. Its operation hours are from Monday to Friday during academic and/or administrative activity periods.



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LEARNING RESOURCES

LEARNING RESOURCES

ADELINA COPPIN ALVARADO LIBRARY

The Adelina Coppin Alvarado Library is the Academic department where the information resources of the Unit are located. These resources have as their purpose to support, to strengthen, and to expand the curricular and cultural offer of the University of Puerto Rico in Ponce. The Library's primary responsibility is to develop services, programs, and collections that support and complement the academic programs of the institution and to stimulate the development of individuals that will be lifetime self-learners.

Its main service areas are:

Audiovisual

This section provides services to the university community that strengthen faculty and administrative work in order to facilitate the teaching-learning process, such as to offer recording services and to lend the equipment needed in University sponsored activities. It also offers identification card and photography services.

Digital Library

It provides access to information in different formats other than those traditionally known. The primary source for the handling of information is the computer. The Digital Library Room has several computers with access to the Internet from which the UPR System and Digital Reserve databases and other additional sources can be accessed. The collection consists of encyclopedias, an atlas collection, and general information on diverse disciplines, word processing programs, and electronic calculation sheets, among others.

Socorro Giron Center for Puerto Rican Studies

This collection includes bibliographical resources such as: books, theses, encyclopedias, an atlas collection, and dictionaries related to Puerto Rico, among others. It also includes documents, pictures, and volatile material in its diverse files.

Circulation and Internal Library Loans

In this area, access to books that circulate outside of the Library can be obtained. These are lent out for a period of two weeks. Also, internal library loans of available bibliographical resources that are processed in other libraries within and outside of Puerto Rico are transacted. To speed up these processes, the Ariel system is used.

Program for the Development of the Mastery of Library Information Skills (PRODDIB)

The Program has as its purpose to facilitate the teaching-learning process for the professors as well as for the students, by means of the training in the handling of the diverse sources of information that will allow students to perform independent learning.

Non Printed Resources

This collection consists of sound recordings (disks), compact disks, images in videotapes and DVD recordings, transparencies, slides, and others. It also possesses the necessary equipment for their use.

References

This section includes summarized information sources useful for quick consultation or to obtain specific data. Among the resources, there are almanacs, dictionaries, encyclopedias, yearbooks, an atlas collection, maps, bibliographies, and others. There are computers available to search the Library's on-line catalog and databases.

Digital Reserve

Digital Reserve is a database that can be accessed through the Blackboard Educational Platform and through which students have access, from any place within or outside the University, to materials that professors are interested students study to enhance their courses. Manuals, texts, reference books, portfolios, or other materials that cannot be digitized, are available at the Reference collection.

Journals, Magazines, and Newspapers

This collection has academic journals that support curricular offers as well as general and periodic magazines in printed, as well as electronic formats.

Other Services:

On-line Public Catalog

In each area of the Library, there is a Microcomputer station to access the on-line computerized public catalog. This catalog offers information regarding all the available resources in the libraries of the UPR System.

Group Study Rooms

The Library has study rooms equipped with chalk boards, tables, and chairs, to be used at a time by a maximum of eight people per room.

Special Activities

The Library sponsors cultural and educational activities that contribute to the achievement of the goals promoted by the University as an educational institution.

Photocopy Machines

There are photocopier and printer areas available for the use of the entire university community.

TECHNOLOGICAL RESOURCES

Title V Project

The Title V Project of the University of Puerto Rico in Ponce is subsidized by funds provided by the Federal Program of the United States Department of Education for the Development of Hispanic Higher Education Institutions. It is known as the Developing Hispanic Serving Institutions Program (DHSIP). This Project was founded in the year 1999 to develop two activities:

Activity I: Strengthening Basic Skills of Communication and the Mathematics.

Activity II: Strengthening of Academic Programs by means of the use of Educational Technology in the Curriculum.

In the implementation of both activities, the central aspects have been the students and the professors. As a result of the efforts, audiovisual techno-computerized support resources are provided to facilitate the teaching/learning process.

Through this Project there have been created: the Multi Teaching and Learning Center (MATC 1, 2, 3), where high technology interactive courses are offered: Basic Spanish, English, and Mathematics; and the Interdisciplinary Computerized Center (CCI) which offers students academic support through techno-computerized resources and specialized programs.

By means of this Project, access to Blackboard has been obtained with the purpose of strengthening interactive distance learning and a total of 29 Smart/Interactive classrooms have been created. In all the Academic Building classrooms, there is access to the Internet and continuous training to the faculty regarding computerized resources and its applications is offered.

The Cooperative Title V Project was established in collaboration with the UPR-Cayey Unit and the UPR-Bayamón Unit to strengthen the teaching of Chemistry, Physics, and Mathematics. Title V is a project meant to support the university's academic success.



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ACADEMIC PROGRAMS

ARTICULATED TRANSFER PROGRAMS

Articulated Transfer Agreements of Academic Bachelor's Degree Programs between the UPR- Ponce and other Units of the University of Puerto Rico System

The Articulated Transfer agreements between the Units of the University of Puerto Rico (UPR) for the different Academic Bachelor Degree Programs are established in a reciprocal manner and in accord with the dispositions established by Certification 115, Series 1996-97, of the Board of Trustees of the University of Puerto Rico. It defines the University of Puerto Rico in Ponce as the preceding Unit and the other as the receiving Unit.

Each agreement has as one of its objectives to facilitate student transfer between the two Institutional Units of the UPR system that subscribes to it. By means of this agreement, the participating students will be able to take Course requisites at the preceding Unit, eventually allowing them to transfer to the receiving Unit without losing credits, or that the time established to fulfill the requisites of the Program be extended.

The agreement established between both Institutional Units will strengthen the academic development of the participating students by providing them with the opportunity to achieve their academic goals in a reasonable time and expose them to the cultural and educational heritage of the participating campuses thus enriching their academic preparation.

Social Sciences Programs

ARTICULATED TRANSFER programs to the UPR Río Piedras Campus

Anthropology, Political Sciences, Cooperativism, Economy, Geography, Sciences, Social Sciences, and Sociology

STUDY PROGRAM

First Year			
First Semester			Credits
CISO	3121	Introduction to Social Sciences I	3
CIBI	3001	Fundamentals of Biology I	3
ESPA	3101	Basic Spanish I	3
INGL	3101	Basic English I	3
INGL	3113	Basic English Laboratory I	0
MATE	3001	Introductory Mathematics I	3
HUMA	3101	Western Culture I	3
Subtotal			18
 Second Semester			 Credits
CISO	3122	Introduction to Social Sciences II	3
CIBI	3002	Fundamentals of Biology II	3
ESPA	3102	Basic Spanish II	3

First Semester			Credits
INGL	3102	Basic English II	3
INGL	3114	Basic English Laboratory II	0
HUMA	3102	Western Culture II	3
		Free Elective ***	3
Subtotal			18

Second Year			Credits
First Semester			
PSIC	3003	Introduction to General Psychology	4
CIPO	3011	Principles of Political Science	3
ESPA	3201	Introduction to the Literary Genres I	3
<u>or</u> ESPA	3211	Introduction to Spanish Literature I	
INGL	3201	English Composition and Reading I	3
<u>or</u> INGL	3221	Introduction to Literature I	
HUMA	3201	Western Culture III	3
CISO	3155	Fundamentals of Statistical Reasoning	3
<u>or</u>		Social Sciences Elective	
Subtotal			19

Second Semester			Credits
SOCI	3245	Principles of Sociology	3
ECON	3005	Introduction to Economics I	3
ESPA	3202	Introduction to the Literary Genres II	3
<u>or</u> ESPA	3212	Introduction to Spanish Literature II	
INGL	3202	English Composition and Reading II	3
<u>or</u> INGL	3222	Introduction to Literature II	
HUMA	3202	Western Culture IV	3
<u>or</u>		Social Sciences Elective*	
		Free Elective	3
Subtotal			18

Total of Credits: 73

*Elective Courses in Social Sciences to an Articulated Transfer Program: ANTR 3005, COOP 3005, CIPO 3035, CIPO 3025, GERO 3005, PSIC 3005, PSIC 3006, PSIC 3015, PSIC 3016, PSIC 3017, PSIC 3018, PSIC 3025, PSIC 3116, PSIC 3305, PSIC 4155, SOCI 3005, SOCI 3265, SOCI 3277, SOCI 3285 y SOCI 3335.

Humanities Programs

ARTICULATED TRANSFER PROGRAM to the UPR Río Piedras Campus

Drama (Theater), Hispanic Studies, Philosophy, French, History of Europe, History of Art, History of the Americas, English, Modern Languages, Comparative Literature, and Music

STUDY PROGRAM

First Year

First Semester		Credits
HUMA 3101	Western Culture I	3
ESPA 3101	Basic Spanish I	3
INGL 3101	Basic English I	3
INGL 3113	Basic English Laboratory I	0
CISO 3121	Introduction to Social Sciences I	3
CIBI 3001	Fundamentals of Biology I	3
<u>or</u> CIFI 3001	Introduction to Physical Science I	
MUSI 3225 ²	The History of Music	3
Subtotal		18

Second Semester		Credits
HUMA 3102	Western Culture II	3
ESPA 3102	Basic Spanish II	3
INGL 3102	Basic English II	3
INGL 3114	Basic English Laboratory II	0
CISO 3122	Introduction to Social Sciences II	3
CIBI 3002	Fundamentals of Biology II	3
<u>or</u> CIFI 3002	Introduction to Physical Science II	
ARTE 3116 ³	General History of Western Art – Condensed	3
Subtotal		18

Second Year

First Semester		Credits
FRAN 3191 ⁴	Intensive Elementary French I	4
FRAN 3193	French Practice I	0
INGL 3251	American Literature I	3
ESPA 3211	Introduction to Spanish Literature I	3
HIST 3241	History of Puerto Rico	3
FILO 3001	Introduction to Philosophy	3
	Free Elective	3
Subtotal		19

Credits

² Except students with a major in Music

³ Except students with a major in Arts

⁴ Or its equivalent, FRAN 3191-3192 = 8 credits.

Second Semester

FRAN	3192	Intensive Elementary French II	4
FRAN	3194	French Practice II	0
INGL	3252	American Literature II	3
ESPA	3212	Introduction to Spanish Literature II	3
HIST	3242	History of Puerto Rico I	3
FILO	4031	Logic I	3
TEAT	3025 ⁵	Theater Appreciation	3
Subtotal			19

TOTAL OF CREDITS: 72-74

Education Programs

ARTICULATED TRANSFER PROGRAM in Elementary Education with a Concentration in Special Education to the University of Puerto Rico in Cayey

Elementary Education with a concentration in Special Education

STUDY PROGRAM

First Year

First Semester			Credits
ESPA	3101	Basic Spanish I	3
INGL	3101	Basic English I	3
INGL	3113	Basic English Laboratory I	0
CISO	3121	Introduction to Social Sciences I	3
MATE	3041	Introduction to Mathematics I	3
EDFU	3001	Human Growth and Development I	3
Subtotal			15

Second Semester			Credits
ESPA	3102	Basic Spanish II	3
INGL	3102	Basic English II	3
INGL	3114	Basic English Laboratory II	0
CISO	3122	Introduction to Social Sciences II	3
MATE	3042	Introduction to Mathematics II	3
EDFU	3002	Human Growth and Development II	3
Subtotal			15

⁵ Except students with a major in Drama

Second Year

First Semester			Credits
HUMA	3101	Western Culture I	3
CIBI	3001	Fundamentals of Biology I	3
<u>or</u> CIFI	3001	Introduction to Physical Science I	
ESPA	3201	Introduction to the Literary Genres I	3
<u>or</u> ESPA	3211	Introduction to Spanish Literature I	
INGL	3201	English Composition and Reading I	3
<u>or</u> INGL	3221	Introduction to Literature I	
EDFU	3007	Social Foundations of Education	3
Subtotal			15

Second Semester			Credits
HUMA	3102	Western Culture II	3
CIBI	3002	Fundamentals of Biology II	3
<u>or</u> CIFI	3002	Introduction to Physical Sciences II	
ESPA	3202	Introduction to the Literary Genres II	3
<u>or</u> ESPA	3212	Introduction to Spanish Literature II	
INGL	3202	English Composition and Reading II	3
<u>or</u> INGL	3222	Introduction to Literature II	
EDES	4006	Nature and Needs of Exceptional Learners	3
Subtotal			15

ARTICULATED TRANSFER PROGRAM Bachelor in Arts in Secondary Education with a concentration in one of the following subject matters: Natural Sciences, Mathematics, English, Spanish, or History - University of Puerto Rico in Cayey

Secondary Education with a concentration in Natural Sciences or Mathematics

STUDY PROGRAM

First Year

First Semester			Credits
ESPA	3101	Basic Spanish I	3
INGL	3101	Basic English I	3
INGL	3113	Basic English Laboratory I	0
CISO	3121	Introduction to Social Sciences I	3
HUMA	3101	Western Culture I	3
MATE	3171	Pre-Calculus I	3
EDFU	3001	Human Growth and Development I	3
Subtotal			18

Second Semester			Credits
ESPA	3102	Basic Spanish II	3
INGL	3102	Basic English II	3
INGL	3114	Basic English Laboratory II	0
CISO	3122	Introduction to Social Sciences II	3
MATE	3172	Pre-Calculus II	3
EDFU	3002	Human Growth and Development II	3
Subtotal			<hr/> 18

First Semester			Credits
MATE	3031	Calculus I	4
QUIM	3001	General Chemistry I	4
QUIM	3003	General Chemistry I Laboratory	0
ESPA	3201	Introduction to the Literary Genres I	3
<u>or</u> ESPA	3211	Introduction to Spanish Literature I	
INGL	3201	English Composition and Reading I	3
<u>or</u> INGL	3221	Introduction to Literature I	
EDFU	3007	Social Foundations of Education	3
Subtotal			<hr/> 17

Second Semester			Credits
MATE	3032	Calculus II	4
QUIM	3002	General Chemistry II	4
QUIM	3004	General Chemistry II Laboratory	0
ESPA	3202	Introduction to the Literary Genres II	3
<u>or</u> ESPA	3212	Introduction to Spanish Literature II	
INGL	3202	English Composition and Reading II	3
<u>or</u> INGL	3222	Introduction to Literature II	
EDES	4006	Nature and Needs of Exceptional Learners	3
Subtotal			<hr/> 17

University of Puerto Rico in Cayey

Secondary Education with a concentration in English, Spanish, or History

STUDY PROGRAM

First Year

First Semester			Credits
ESPA	3101	Basic Spanish I	3
INGL	3101	Basic English I	3
INGL	3113	Basic English Laboratory I	0
CISO	3121	Introduction to Social Sciences I	3
HUMA	3101	Western Culture I	3
CIBI	3001	Fundamentals of Biology I	3
EDFU	3001	Human Growth and Development I	3
Subtotal			18

Second Semester			Credits
ESPA	3102	Basic Spanish II	3
INGL	3102	Basic English II	3
INGL	3114	Basic English Laboratory II	0
CISO	3122	Introduction to Social Sciences II	3
HUMA	3102	Western Culture II	3
CIBI	3002	Fundamentals of Biology II	3
EDFU	3002	Human Growth and Development II	3
Subtotal			18

Second Year

First Semester			Credits
MATE	3041	Introduction to Mathematics I	3
HUMA	3201	Western Culture I	3
ESPA	3201	Introduction to Literary Genres I	3
<u>or</u> ESPA	3211	Introduction to Spanish Literature I	
INGL	3201	English Composition and Reading I	3
<u>or</u> INGL	3221	Introduction to Literature I	
EDFU	3007	Social Foundations of Education	3
Subtotal			15

Second Semester			Credits
MATE	3042	Introduction to Mathematics II	3
HUMA	3202	Western Culture II	3
ESPA	3202	Introduction to Literary Genres II	3
<u>or</u> ESPA	3212	Introduction to Spanish Literature II	
INGL	3202	English Composition and Reading II	3
<u>or</u> INGL	3222	Introduction to Literature II	

First Semester			Credits
EDES	4006	Nature and Needs of Exceptional Learners	3
Subtotal			<hr/> 15

Education Programs

ARTICULATED TRANSFER PROGRAM to the University of Puerto Rico in Río Piedras in Elementary Education with a concentration in Special Education

SPECIAL EDUCATION

First Year

First Semester			Credits
ESPA	3101	Basic Spanish I	3
INGL	3101	Basic English I	3
INGL	3113	Basic English Laboratory I	0
<u>or</u> INGL	3103	Intermediate English I	
EDES	4006	Nature and Needs of Exceptional Learners	3
MATE	3041	Introduction to Mathematics I	3
HUMA	3101	Western Culture I	3
EDFU	3001	Human Growth and Development I	3
Subtotal			<hr/> 18

Second Semester			Credits
ESPA	3102	Basic Spanish II	3
INGL	3102	Basic English II	3
INGL	3114	Basic English Laboratory II	0
<u>or</u> INGL	3104	Intermediate English II	
EDES	4015	Nature and Needs of Mentally Retarded Children	3
MATE	3042	Introduction to Mathematics II	3
HUMA	3102	Western Culture II	3
EDFU	3002	Human Growth and Development II	3
Subtotal			<hr/> 18

Second Year

First Semester			Credits
ESPA	3201	Introduction to Literary Genres I	3
<u>or</u> ESPA	3211	Introduction to Spanish Literature I	
INGL	3201	English Composition and Reading I	3
<u>or</u> INGL	3221	Introduction to Literature I	
CISO	3121	Introduction to Social Sciences I	3
EDES	4018	Teaching Trainable Mentally Retarded	3

First Semester			Credits
HUMA	3201	Children Western Culture III	3
Subtotal			<hr/> 15

Second Semester			Credits
ESPA	3202	Introduction to Literary Genres II	3
<u>or</u> ESPA	3212	Introduction to Spanish Literature I	
INGL	3202	English Composition and Reading II	3
<u>or</u> INGL	3222	Introduction to Literature II	
CISO	3121	Introduction to Social Sciences II	3
EDES	4048	Behavior Modification and its Application in the Classroom	3
HUMA	3202	Western Culture IV	3
EDFU	3007	Social Foundations of Education	3
Subtotal			<hr/> 18

Students can also take the following courses: HIST 3115-History of the United States and HIST 3245-History of Puerto Rico at the preceding Unit. Courses EDES 4015, EDES 4018, and EDES 4048 will be requested and activated during the Academic Year 2006-2007.

Education Programs

Articulated Transfer Program to the University of Puerto Rico in Río Piedras for a Bachelor's degree in the Arts of Secondary Education with a concentration in one of the following subject matters: Industrial Arts, Chemistry, Physics, Teaching English to Spanish Speakers, Theater, Art, Physical Education, Mathematics, Special Education, or Nutrition and Diet.

ARTS

First Year			Credits
First Semester			
ESPA	3101	Basic Spanish I	3
INGL	3101	Basic English I	3
INGL	3113	Basic English Laboratory I	0
<u>or</u> INGL	3103	Intermediate English I	
CISO	3121	Introduction to Social Sciences I	3
HUMA	3101	Western Culture I	3
CIBI	3001	Fundamentals of Biology I	3
EDFU	3001	Human Growth and Development I	3
Subtotal			<hr/> 18

First Semester			Credits
Second Semester			Credits
ESPA	3102	Basic Spanish II	3
INGL	3102	Basic English II	3
INGL	3114	Basic English Laboratory II	0
<u>or</u> INGL	3104	Intermediate English II	
CISO	3122	Introduction to Social Sciences II	3
HUMA	3102	Western Culture II	3
CIBI	3002	Fundamentals of Biology II	3
EDFU	3002	Human Growth and Development II	3
Subtotal			18

Second Year

First Semester			Credits
ESPA	3201	Introduction to Literary Genres I	3
<u>or</u> ESPA	3211	Introduction to Spanish Literature I	
MATE	3041	Introduction to Mathematics I	3
INGL	3201	English Composition and Reading I	3
<u>or</u> INGL	3221	Introduction to Literature I	
HUMA	3201	Western Culture III	3
HIST	3245	History of Puerto Rico	3
EDES	4006	Nature and Needs of Exceptional Learners	3
Subtotal			18

Second Semester			Credits
ESPA	3202	Introduction to Literary Genres II	3
<u>or</u> ESPA	3212	Introduction to Spanish Literature I	3
MATE	3042	Introduction to Mathematics II	3
INGL	3202	English Composition and Reading II	3
<u>or</u> INGL	3222	Introduction to Literature II	3
HUMA	3202	Western Culture IV	3
EDFU	3007	Social Foundations of Education	3
Subtotal			15

NOTE: Students can take the course HIST 3115-History of the United States at the preceding Unit. This course is a requisite for the Teacher Certification of the Department of Education.

THEATER

First Year

First Semester			Credits
ESPA	3101	Basic Spanish I	3
INGL	3101	Basic English I	3
INGL	3113	Basic English Laboratory I	0
<u>or</u> INGL	3103	Intermediate English I	
CIBI	3001	Fundamentals of Biology I	3

First Semester			Credits
EDFU	3001	Human Growth and Development I	3
HUMA	3101	Western Culture I	3
Subtotal			<hr/> 15

Second Semester			Credits
ESPA	3102	Basic Spanish II	3
INGL	3102	Basic English II	3
INGL	3114	Basic English Laboratory II	0
<u>or</u> INGL	3104	Intermediate English II	3
CIBI	3001	Fundamentals of Biology II	3
EDFU	3002	Human Growth and Development II	3
HUMA	3102	Western Culture II	3
Subtotal			<hr/> 15

Second Year

First Semester			Credits
MATE	3041	Introduction to Mathematics I	3
ESPA	3201	Introduction to Literary Genres I	3
<u>or</u> ESPA	3211	Introduction to Spanish Literature I	3
CISO	3121	Introduction to Social Sciences I	
INGL	3201	English Composition and Reading I	3
<u>or</u> INGL	3221	Introduction to Literature I	3
HUMA	3201	Western Culture III	3
EDES	4006	Nature and Needs of Exceptional Learners	3
Subtotal			<hr/> 18

Second Semester			Credits
ESPA	3202	Introduction to Literary Genres II	3
<u>or</u> ESPA	3212	Introduction to Spanish Literature I	3
MATE	3042	Introduction to Mathematics II	3
INGL	3202	English Composition and Reading II	3
<u>or</u> INGL	3222	Introduction to Literature II	3
HUMA	3202	Western Culture IV	3
EDFU	3007	Social Foundations of Education	3
Subtotal			<hr/> 18

NOTA: Students can take the following courses: HIST 3115-History of the United States and HIST 3245-History of Puerto Rico at the preceding Unit.

MATHEMATICS

First Year

First Semester			Credits
ESPA	3101	Basic Spanish I	3
INGL	3101	Basic English I	3
INGL	3113	Basic English Laboratory I	0
<u>or</u> INGL	3103	Intermediate English I	
MATE	3171	Pre-Calculus	3
CIBI	3001	Fundamentals of Biology I	3
HUMA	3101	Western Culture I	3
EDFU	3001	Human Growth and Development I	3
Subtotal			<hr/> 18

Second Semester			Credits
ESPA	3102	Basic Spanish II	3
INGL	3102	Basic English II	3
INGL	3114	Basic English Laboratory II	0
<u>or</u> INGL	3104	Intermediate English II	
MATE	3172	Pre-Calculus II	3
CIBI	3002	Fundamentals of Biology II	3
HUMA	3102	Western Culture II	3
EDFU	3002	Human Growth and Development II	3
Subtotal			<hr/> 18

Second Year

First Semester			Credits
CISO	3121	Introduction to Social Sciences I	3
ESPA	3201	Introduction to Literary Genres I	3
<u>or</u> ESPA	3211	Introduction to Spanish Literature I	
INGL	3201	English Composition and Reading I	3
<u>or</u> INGL	3221	Introduction to Literature I	
QUIM	3001	General Chemistry I	4
QUIM	3003	General Chemistry I Laboratory	0
HUMA	3201	Western Culture III	3
EDES	4006	Nature and Needs of Exceptional Learners	3
Subtotal			<hr/> 19

Second Semester			Credits
CISO	3122	Introduction to Social Sciences II	3
ESPA	3202	Introduction to Literary Genres II	3
<u>or</u> ESPA	3212	Introduction to Spanish Literature I	
INGL	3202	English Composition and Reading II	3

<u>or</u> INGL	3222	Introduction to Literature II	
QUIM	3001	General Chemistry II	4
QUIM	3003	General Chemistry II Laboratory	0
HUMA	3202	Western Culture IV	3
EDFU	3007	Social Foundations of Education	3
Subtotal			<hr/> 19

NOTE: Students can also take the following courses: HIST 3115-History of the United States and HIST 3245-History of Puerto Rico at the preceding Unit.

TEACHING ENGLISH TO SPANISH SPEAKERS

First Year

First Semester			Credits
ESPA	3101	Basic Spanish I	3
INGL	3101	Basic English I	3
INGL	3113	Basic English Laboratory I	0
<u>or</u> INGL	3103	Intermediate English I	
CIBI	3001	Fundamentals of Biology I	3
MATE	3041	Introduction to Mathematics I	3
HUMA	3101	Western Culture I	3
EDFU	3001	Human Growth and Development I	3
Subtotal			<hr/> 18

Second Semester			Credits
ESPA	3102	Basic Spanish II	3
INGL	3102	Basic English II	3
INGL	3114	Basic English Laboratory II	0
<u>or</u> INGL	3104	Intermediate English II	
MATE	3042	Introduction to Mathematics II	3
CIBI	3002	Fundamentals of Biology II	3
HUMA	3102	Western Culture II	3
EDFU	3002	Human Growth and Development II	3
Subtotal			<hr/> 18

Second Year

First Semester			Credits
ESPA	3201	Introduction to Literary Genres I	3
<u>or</u> ESPA	3211	Introduction to Spanish Literature I	
INGL	3201	English Composition and Reading I	3
<u>or</u> INGL	3221	Introduction to Literature I	
CISO	3121	Introduction to Social Sciences I	3
CIFI	3001	Introduction to Physical Science I	3

HUMA	3201	Western Culture III	3
EDES	4006	Nature and Needs of Exceptional Learners	3
Subtotal			<hr/> 18

Second Semester			Credits
ESPA	3202	Introduction to Literary Genres II	3
<u>or</u> ESPA	3212	Introduction to Spanish Literature I	
INGL	3202	English Composition and Reading II	3
<u>or</u> INGL	3222	Introduction to Literature II	
CISO	3122	Introduction to Social Sciences II	3
CIFI	3002	Introduction to Physical Sciences II	3
HUMA	3202	Western Culture IV	3
EDFU	3007	Social Foundations of Education	3
Subtotal			<hr/> 18

NOTE: Students can also take the following courses: HIST 3115-History of the United States and HIST 3245-History of Puerto Rico at the preceding Unit. To be officially admitted to any of the Specialty Programs (Elementary or Secondary English), the student must go through an interview and approve a theoretical test. Both criteria will be administered by English professors of the Education faculty of the UPR Río Piedras Campus. Students who do not approve these criteria will not be admitted to the program they applied to.

INDUSTRIAL ARTS

First Year

First Semester			Credits
ESPA	3101	Basic Spanish I	3
INGL	3101	Basic English I	3
INGL	3113	Basic English Laboratory I	0
CIBI	3001	Fundamentals of Biology I	3
MATE	3041	Introduction to Mathematics I	3
HUMA	3101	Western Culture I	3
EDFU	3001	Human Growth and Development I	3
Subtotal			<hr/> 15

Second Semester			Credits
ESPA	3102	Basic Spanish II	3
INGL	3102	Basic English II	3
INGL	3114	Basic English Laboratory II	0
MATE	3042	Introduction to Mathematics II	3
CIBI	3002	Fundamentals of Biology II	3
HUMA	3102	Western Culture II	3
EDFU	3002	Human Growth and Development II	3
Subtotal			<hr/> 15

Second Year

First Semester			Credits
ESPA	3201	Introduction to Literary Genres I	3
<u>or</u> ESPA	3211	Introduction to Spanish Literature I	
INGL	3201	English Composition and Reading I	3
<u>or</u> INGL	3221	Introduction to Literature I	
CISO	3121	Introduction to Social Sciences I	3
HUMA	3201	Western Culture III	3
EDES	4006	Nature and Needs of Exceptional Learners	3
Subtotal			<hr/> 15

Second Semester			Credits
ESPA	3202	Introduction to Literary Genres II	3
<u>or</u> ESPA	3212	Introduction to Spanish Literature I	
INGL	3202	English Composition and Reading II	3
<u>or</u> INGL	3222	Introduction to Literature II	
CISO	3122	Introduction to Social Sciences II	3
HUMA	3202	Western Culture IV	3
EDFU	3007	Social Foundations of Education	3
Subtotal			<hr/> 15

Students can take the following courses: HIST 3115-History of the United States and HIST 3245-History of Puerto Rico at the preceding Unit.

CHEMISTRY

First Year

First Semester			Credits
ESPA	3101	Basic Spanish I	3
INGL	3101	Basic English I	3
INGL	3113	Basic English Laboratory I	0
CIBI	3001	Fundamentals of Biology I	3
MATE	3171	Pre-Calculus I	
HUMA	3101	Western Culture I	3
EDFU	3001	Human Growth and Development I	3
Subtotal			<hr/> 15

Second Semester			Credits
ESPA	3102	Basic Spanish II	3
INGL	3102	Basic English II	3
INGL	3114	Basic English Laboratory II	0
MATE	3172	Pre-Calculus II	
CIBI	3002	Fundamentals of Biology II	3
HUMA	3102	Western Culture II	3
EDFU	3002	Human Growth and Development II	3
Subtotal			<hr/> 15

First Semester			Credits
ESPA	3201	Introduction to Literary Genres I	3
<u>or</u> ESPA	3211	Introduction to Spanish Literature I	
INGL	3201	English Composition and Reading I	3
<u>or</u> INGL	3221	Introduction to Literature I	
CISO	3121	Introduction to Social Sciences I	3
QUIM	3001	General Chemistry I	4
QUIM	3003	General Chemistry I Laboratory	0
HUMA	3201	Western Culture III	3
EDES	4006	Nature and Needs of Exceptional Learners	3
Subtotal			<hr/> 19

Second Semester			Credits
ESPA	3202	Introduction to Literary Genres II	3
<u>or</u> ESPA	3212	Introduction to Spanish Literature I	
INGL	3202	English Composition and Reading II	3
<u>or</u> INGL	3222	Introduction to Literature II	
CISO	3122	Introduction to Social Sciences II	3
QUIM	3002	General Chemistry II	4
QUIM	3004	General Chemistry II Laboratory	0
HUMA	3202	Western Culture IV	3
EDFU	3007	Social Foundations of Education	3
Subtotal			<hr/> 19

NOTE: Students can also take the following courses: HIST 3115-History of the United States and HIST 3245-History of Puerto Rico at the preceding Unit.

PHYSICS

First Year

First Semester			Credits
ESPA	3101	Basic Spanish I	3
INGL	3101	Basic English I	3
INGL	3113	Basic English Laboratory I	0
CIBI	3001	Fundamentals of Biology I	3
MATE	3171	Pre-Calculus I	3
HUMA	3101	Western Culture I	3
EDFU	3001	Human Growth and Development I	3
Subtotal			<hr/> 18

Second Semester			Credits
ESPA	3102	Basic Spanish II	3
INGL	3102	Basic English II	3
INGL	3114	Basic English Laboratory II	0
MATE	3172	Pre-Calculus II	3
BIOL	3102	Biology General II	3
HUMA	3102	Western Culture II	3
EDFU	3002	Human Growth and Development II	3
Subtotal			<hr/> 18

Second Year

First Semester			Credits
ESPA	3201	Introduction to Literary Genres I	3
<u>or</u> ESPA	3211	Introduction to Spanish Literature I	
INGL	3201	English Composition and Reading I	3
<u>or</u> INGL	3221	Introduction to Literature I	
CISO	3121	Introduction to Social Sciences I	3
QUIM	3001	General Chemistry I	4
QUIM	3003	General Chemistry I Laboratory	0
HUMA	3201	Western Culture III	3
EDES	4006	Nature and Needs of Exceptional Learners	3
Subtotal			<hr/> 19

Second Semester			Credits
ESPA	3202	Introduction to Literary Genres II	3
<u>or</u> ESPA	3212	Introduction to Spanish Literature II	
INGL	3202	English Composition and Reading II	3
<u>or</u> INGL	3222	Introduction to Literature II	
CISO	3122	Introduction to Social Sciences II	3
QUIM	3002	General Chemistry II	4
QUIM	3004	General Chemistry II Laboratory	0
HUMA	3202	Western Culture IV	3
EDFU	3007	Social Foundations of Education	3
Subtotal			<hr/> 19

NOTE: Students can also take the following courses: HIST 3115-History of the United States and HIST 3245-History of Puerto Rico at the preceding Unit.

NUTRITION AND DIET

First Year			Credits
First Semester			
ESPA	3101	Basic Spanish I	3
INGL	3101	Basic English I	3
INGL	3113	Basic English Laboratory I	0
BIOL	3101	General Biology I*	3
MATE	3171	Pre-Calculus I	3
HUMA	3101	Western Culture I	3
CISO	3121	Introduction to Social Sciences I	3
Subtotal			<hr/> 18
Second Semester			Credits
ESPA	3102	Basic Spanish II	3
INGL	3102	Basic English II	3
INGL	3114	Basic English Laboratory II	0
MATE	3172	Pre-Calculus II	3
BIOL	3102	General Biology II*	3
HUMA	3102	Western Culture II	3
CISO	3122	Introduction to Social Sciences II	3
Subtotal			<hr/> 18

*The students will take BIOL 3011 and 3013 during the first semester; and BIOL 3012 and 3014 during the second semester.

Second Year

First Semester			Credits
BIOL	3711	Human Biology I	3
ESPA	3291	Spanish Grammar I	3
INGL	3061	Oral and Written English I	3
QUIM	3001	General Chemistry I	4
QUIM	3003	General Chemistry I Laboratory	0
CIFI	3006	Computer Literacy	3
ECDO	3015	Family Relationships	3
Subtotal			<hr/> 19

Second Semester			Credits
BIOL	3712	Human Biology II	3
ESPA	3208	Composition	3
INGL	3062	Oral and Written English II	3
QUIM	3002	General Chemistry II	4
QUIM	3004	General Chemistry II Laboratory	0
ECDO	3007	The Human Being Across the Life Span	3
ECDO	4031	Food: Its Nature and Principles of Preparation	3
Subtotal			<hr/> 19

NOTE: Students can also take the following courses: HIST 3115-History of the United States and HIST 3245-History of Puerto Rico at the preceding Unit. Courses: MATE 3023 and MATE 3024 are respectively equivalent to MATE 3171 and MATE 3172. If the score the student obtained in the Mathematics aptitude test section of the College Board does not allow him/her to take MATE 3171 in his/her first semester of studies, the student must take MATE 3001 in order to be prepared to take MATE 3171. Furthermore, the UPR Central Administration will coordinate the activation of Courses ECDO 3015-Family Relationships; ECDO 3007- The Human Being Across the Life Span, and ECDO 4031- Food: Its Nature and Principles of Preparation, corresponding to the second year of studies; if it is not feasible students will transfer after completing the first year requisites.

PHYSICAL EDUCATION

First Year

First Semester			Credits
ESPA	3101	Basic Spanish I	3
INGL	3101	Basic English I	3
INGL	3113	Basic English Laboratory I	0
<u>or</u> INGL	3103	Intermediate English I	
CIBI	3001	Fundamentals of Biology I	3
MATE	3041	Introduction to Mathematics I	3
HUMA	3101	Western Culture I	3
EDFU	3001	Human Growth and Development I	3
Subtotal			18

Second Semester			Credits
ESPA	3102	Basic Spanish II	3
INGL	3102	Basic English II	3
INGL	3114	Basic English Laboratory II	0
<u>or</u> INGL	3104	Intermediate English II	
CIBI	3002	Fundamentals of Biology II	3
MATE	3042	Introduction to Mathematics II	3
HUMA	3102	Western Culture II	3
EDFU	3002	Human Growth and Development II	3
			18

Second Year

First Semester			Credits
ESPA	3201	Introduction to Literary Genres I	3
<u>or</u> ESPA	3211	Introduction to Spanish Literature I	
INGL	3201	English Composition and Reading I	3
<u>or</u> INGL	3221	Introduction to Literature I	
CISO	3121	Introduction to Social Sciences I	3
EDFI	3555	History and Principles of Physical Education	3
HUMA	3201	Western Culture III	3
EDES	4006	Nature and Needs of Exceptional Learners	3
Subtotal			18

Second Semester			Credits
ESPA	3202	Introduction to Literary Genres II	3
<u>or</u> ESPA	3212	Introduction to Spanish Literature I	
INGL	3202	English Composition and Reading II	3
<u>or</u> INGL	3222	Introduction to Literature I	
CISO	3122	Introduction to Social Sciences II	3
EDFI	3465	Personal and Community Health	3
HUMA	3202	Western Culture IV	3
EDFU	3007	Social Foundations of Education	3
Subtotal			18

NOTE: Students can also take the following courses: HIST 3115-History of the United States and HIST 3245-History of Puerto Rico at the preceding Unit. The first year English course taken by the student will be in accordance to the *College Board* results.

Engineering Programs

ARTICULATED TRANSFER PROGRAMS to the UPR Mayagüez Campus in Civil, Electric, Computer, Industrial, Mechanical, and Chemical Engineering or Surveying and Topography

STUDY PROGRAM

First Year			Credits
First Semester			
ESPA	3101	Basic Spanish I	3
INGL	3101	Basic English I	3
INGL	3113	Basic English Laboratory I	0
INGE	3011	Engineering Graphics I	2
MATE	3005	Pre-Calculus*	5
QUIM	3001	General Chemistry I	4
QUIM	3003	General Chemistry I Laboratory	0
Subtotal			17
Second Semester			Credits
ESPA	3102	Basic Spanish II	3
INGL	3102	Basic English II	3
INGL	3114	Basic English Laboratory II	0
EDFI		Physical Education Elective	2
MATE	3031	Calculus I**	4
QUIM	3002	General Chemistry II	4
QUIM	3004	General Chemistry II Laboratory	0
Subtotal			16

Second Year

First Semester			Credits
FISI	3171	Physics I	4
FISI	3173	Physics Laboratory I	1
INGE	3031	Engineering Mechanics-Statics	3
INGL	3201	English Composition and Reading I	3
MATE	3032	Calculus II***	4
		Social-Humanities Elective****	3
Subtotal			18

Second Semester			Credits
FISI	3172	Physics II	4
FISI	3174	Physics Laboratory II	1
INGE	3016	Algorithms and Computer Programming	3
INGE	3032	Engineering Mechanics-Dynamics	3
INGL	3202	English Composition and Reading II	3
MATE	3063	Calculus III	4
Subtotal			18

TOTAL OF CREDITS: 68

*If the student obtains less than a 750 score in the Mathematics section of the College Evaluation and Admission Test (PEAU), he/she must take the course: MATE 3171.

**The student will matriculate in the course MATE 3172 if he/she took MATE 3171 in the first semester.

***The student must take MATE 3031 during the previous summer in order to be able to take this course.

****According to those recommended by RUM.

Guided Electives:

INGE 3012 – Engineering Graphics II (2 credits)

INGE 4011 – Mechanics of Materials I (3 credits)

**ARTICULATED TRANSFER for the Materials Management Bachelor's Degree
academic program to the University of Puerto Rico in Bayamón.**

UPR-Ponce

First Year

First Semester			Credits
*INGL	3---	First Year English	3
*ESPA	3101	Basic Spanish I	3
MATE	3171	Pre-Calculus I	3
HUMA	3111	Compendium Study Western Culture 1-2	3
CIBI	3001	Fundamentals of Biology I	3
ADMI	3005	Administrative Theory	3
Subtotal			<hr/> 18

Second Semester			Credits
*INGL	3---	First Year English	3
*ESPA	3102	Basic Spanish II	3
MATE	3172	Pre-Calculus II	3
HUMA	3112	Introduction Study to Western Culture	3
CIBI	3002	Fundamentals of Biology II	3
MATE	3015	Elementary Statistics	3
Subtotal			<hr/> 18

Second Year

First Semester			Credits
INCO	3005	Business English I	3
ESCO	3001	Psychology of Communication I	3
CISO	3121	Introduction to Social Sciences I	3
MATE	3031	Calculus I	4
TIIN	2016	Engineering Accounting	4
TIIN	2026	Engineering Accounting Project	0
Subtotal			<hr/> 17

Second Semester			Credits
INCO	3006	Business English II	3
ESCO	3002	Psychology of Communication II	3
CISO	3122	Introduction to Social Sciences II	3
TIIN	2017	Industrial Economics	3
SICI	1008	Introduction to Computers	4
Subtotal			<hr/> 16

Third Year

First Semester			Credits
TIIN	2009	Quality Control	3
SICI	3028	Application Software	3
TIIN	2015	Production Control	3
REHU	4405	Human Resources Management	3
-----		Free Elective	3
-----		Free Elective	3
Subtotal			18

Second Semester

Credits

During this semester the student transfers to the UPR-Bayamón Unit to take the courses needed to complete the degree.

Total of Credits: 87

*Placing depends on the score obtained in the CEEB or the advanced tests.
Some recommended free electives are: FILO 3005, TIIN1008, TIIN 2005 or TIIN 1015.

Mathematics Programs

Articulated Transfer Bachelor's Degree in Mathematics to the UPR in Mayagüez Campus

STUDY PROGRAM

PURE MATHEMATICS

First Year

First Semester			Credits
*MATE	3005	Pre-Calculus	5
QUIM	3001	General Chemistry I	4
QUIM	3003	General Chemistry I Laboratory	0
*INGL	3__	First Year English	3
*ESPA	3101	Basic Spanish I	3
BIOL	3011	General Biology I	4
BIOL	3013	General Biology I Laboratory	0
Subtotal			19

Second Semester			Credits
MATE	3031	Calculus I	4
QUIM	3002	General Chemistry II	4
QUIM	3004	General Chemistry II Laboratory	0
*INGL	3__	First Year English	3
*ESPA	3102	Basic Spanish II	3
BIOL	3012	General Biology II	4
BIOL	3014	General Biology II Laboratory	0
EDFI	-----	Physical Education Elective	1
Subtotal			19

Second Year

First Semester			Credits
MATE	3032	Calculus II	4
MATE	3020	Introduction to the Foundations of Mathematics	3
INGL	3__	Second Year English	3
COMP	3010	Introduction to Computer Programming I	3
ESPA	-----	Second Year Spanish	3
EDFI	-----	Physical Education Elective	1
Subtotal			17

Second Semester			Credits
MATE	3063	Calculus III	3
FISI	3171	Physics I	4
FISI	3173	Physics I Laboratory	1
INGL	3__	Second Year English	3
MATE	4031	Linear Algebra	3
ESPA	3__	Second Year Spanish	3
Subtotal			17

STUDY PROGRAM

COMPUTER SCIENCES

First Year			Credits
First Semester			
*MATE	3005	Pre-Calculus	5
QUIM	3001	General Chemistry I	4
QUIM	3003	General Chemistry I Laboratory	0
*INGL	3__	First Year English	3
*ESPA	3101	Basic Spanish I	3
BIOL	3011	General Biology I	4
BIOL	3013	General Biology I Laboratory	0
Subtotal			19

Second Semester			Credits
MATE	3031	Calculus I	4
QUIM	3002	General Chemistry II	4
QUIM	3004	General Chemistry II Laboratory	0
*INGL	3__	First Year English	3
*ESPA	3102	Basic Spanish II	3
BIOL	3012	General Biology II	4
BIOL	3014	General Biology II Laboratory	0
EDFI	-----	Physical Education Elective	1
Subtotal			19

Second Year			Credits
First Semester			
MATE	3032	Calculus II	4
MATE	3020	Introduction to the Foundations of Mathematics	3
INGL	3__	Second Year English	3
COMP	3010	Introduction to Computer Programming I	3
ESPA	-----	Second Year Spanish	3
EDFI	-----	Physical Education Elective	1
Subtotal			17

Second Semester			Credits
MATE	3063	Calculus III	3
ESPA	-----	Second Year Spanish	3
COMP	3110	Introduction to Computer Programming II	3
INGL	3__	Second Year English	3
MATE	4031	Linear Algebra	3
ELECTIVA		Free Elective	3
Subtotal			<hr/> 18

STUDY PROGRAM EDUCATION: MATHEMATICS

First Year			Credits
First Semester			
*MATE	3005	Pre-Calculus	5
QUIM	3001	General Chemistry I	4
QUIM	3003	General Chemistry I Laboratory	0
*INGL	3__	First Year English	3
*ESPA	3101	Basic Spanish I	3
BIOL	3011	General Biology I	4
BIOL	3013	General Biology I Laboratory	0
Subtotal			<hr/> 19

Second Semester			Credits
MATE	3031	Calculus I	4
QUIM	3002	General Chemistry II	4
QUIM	3004	General Chemistry II Laboratory	0
*INGL	3__	First Year English	3
*ESPA	3102	Basic Spanish II	3
BIOL	3012	General Biology II	4
BIOL	3014	General Biology II Laboratory	0
EDFI	-----	Physical Education Elective	1
Subtotal			<hr/> 19

Second Year			Credits
First Semester			
MATE	3032	Calculus II	4
MATE	3020	Introduction to the Foundations of Mathematics	3
INGL	3__	Second Year English	3
COMP	3010	Introduction to Computer Programming I	3
ESPA	-----	Second Year Spanish	3
EDFI	-----	Physical Education Elective	1
Subtotal			<hr/> 17
Second Semester			Credits
MATE	3063	Calculus III	3

ESPA	-----	Second Year Spanish	3
MATE	3030	Introductory College Geometry	3
INGL	3__	Second Year English	3
MATE	4031	Linear Algebra	3
EDFU	3007	Social Foundations of Education	3
Subtotal			18

*Depends on *College Board* and *SAT scores*.

Articulated Transfer Bachelor's Degree in Computational Mathematics to the University of Puerto Rico in Humacao

First Year			
First Semester			Credits
MATE	3005	Pre-Calculus	5
<u>or</u> MATE	3171	Pre-Calculus I	3
COMP	3010	Introduction to Computer Programming I	3
INGL	3101	Basic English I	3
INGL	3103	Basic English I Laboratory	0
ESPA	3101	Basic Spanish I	3
CISO	3121	Introduction to Social Sciences I	3
Subtotal			15 or 16

Second Semester			
Second Semester			Credits
MATE	3031	Calculus I	4
<u>or</u> MATE	3172	Pre-Calculus II	3
COMP	3110	Introduction to Computer Programming II	3
INGL	3102	Basic English II	3
INGL	3104	Basic English II Laboratory	0
ESPA	3102	Basic Spanish II	3
CISO	3122	Introduction to Social Sciences II	3
Subtotal			15 or 16

Second Year			
First Semester			Credits
MATE	3031	Calculus I	4
<u>or</u> MATE	3032	Calculus II	4
MATE	3050	Discrete Mathematics	3
HUMA	3101	Western Culture I	3
ESPA	3201	Introduction to the Literary Genres I	3
INGL	3201	English Composition and Reading I	3
FISI	3011	University Physics I	3
FISI	3013	University Physics I Laboratory	1
Subtotal			20

Second Semester			Credits
MATE	3032	Calculus II	4
<u>or</u> MATE	4031	Linear Algebra	3
COMP	4097	Data Structures and Algorithms	3
HUMA	3102	Western Culture II	3
ESPA	3202	Introduction to the Literary Genres II	3
INGL	3202	English Composition and Reading II	3
FISI	3012	University Physics II	3
FISI	3014	University Physics II Laboratory	1
Subtotal			<hr/> 19 or 20

University of Puerto Rico in Cayey

Articulated Transfer Bachelor's Degree in Sciences with a Concentration in Mathematics

First Year			Credits
First Semester			
QUIM	3001	General Chemistry I	4
QUIM	3003	General Chemistry I Laboratory	0
MATE	3171	Pre-Calculus I	3
ESPA	3101	Basic Spanish I	3
INGL	3101	Basic English I	3
INGL	3113	Basic English I Laboratory	0
HUMA	3101	Western Culture I	3
Subtotal			<hr/> 16

Second Semester			Credits
QUIM	3002	General Chemistry II	4
QUIM	3004	General Chemistry II Laboratory	0
MATE	3172	Pre-Calculus II	3
ESPA	3102	Basic Spanish II	3
INGL	3102	Basic English II	3
INGL	3114	Basic English II Laboratory	0
HUMA	3102	Western Culture II	3
Subtotal			<hr/> 16

Second Year

First Semester			Credits
MATE	3031	Calculus I	4
ESPA	3201	Introduction to the Literary Genres I	3
<u>or</u> ESPA	3211	Introduction to Spanish Literature I	
BIOL	3011	General Biology I	4
BIOL	3013	General Biology I Laboratory	0
FISI	3001	General Physics I	4
FISI	3003	General Physics I Laboratory	0
MATE	3015	Elementary Statistics	3
<u>or</u> MATE	4031	Linear Algebra	
Subtotal			18

Second Semester			Credits
MATE	3032	Calculus II	4
ESPA	3202	Introduction to Literary Genres II	3
<u>or</u> ESPA	3212	Introduction to Spanish Literature II	
BIOL	3012	General Biology II	4
BIOL	3014	General Biology II Laboratory	0
FISI	3002	General Physics II	4
FISI	3004	General Physics II Laboratory	0
SICI	3002	Programming in COBOL	4
Subtotal			19

Chemistry Programs

Articulated Transfer Bachelor's Degree in Sciences with a concentration in Chemistry to the UPR in Mayagüez Campus

First Year

First Semester			Credits
MATE	3005	Pre-Calculus	5
QUIM	3041	General Chemistry I	4
*INGL	3____	First Year English	3
*ESPA	3101	Basic Spanish I	3
HUMA	3111	Compendium Study Western Culture 1-2	3
Subtotal			18

Second Semester			Credits
MATE	3031	Calculus	4
QUIM	3042	General Chemistry II	4
*INGL	3____	First Year English	3
*ESPA	3102	Basic Spanish II	3
HUMA	3112	Introduction Study to Western Culture	3
EDFI		Physical Education Elective	1
Subtotal			18

Course Equivalence			Credits
MATE	3005	Pre-Calculus	5
QUIM	3001	General Chemistry I	4
*INGL	3__	First Year English	3
*ESPA	3101	Basic Spanish I	3
HUMA	3111	Compendium Study Western Culture 1-2	3
Subtotal			18

Course Equivalence			Credits
MATE	3031	Calculus I	4
QUIM	3002	General Chemistry II	4
*INGL	3__	First Year English	3
*ESPA	3101	Basic Spanish II	3
HUMA	3112	Introduction Study to Western Culture	3
EDFI		Physical Education Elective	2
Subtotal			19

Second Year

First Semester			Credits
MATE	3032	Calculus II	4
FISI	3171	Physics I	4
FISI	3173	Physics I Laboratory	1
CIBI	3031	Introduction to the Biological Sciences I	3
QUIM	3071	Organic Chemistry I	4
INGL	3__	Second Year English	3
Subtotal			18

Second Semester			Credits
MATE	3063	Calculus III	3
FISI	3172	Physics II	4
FISI	3174	Physics II Laboratory	1
CIBI	3032	Introduction to the Biological Sciences II	3
QUIM	3072	Organic Chemistry II	4
INGL	3__	Second Year English	3
Subtotal			18

Course Equivalence			Credits
MATE	3032	Calculus II	4
FISI	3171	Physics I	4
FISI	3173	Physics I Laboratory	1
BIOL	3011	General Biology I	4
QUIM	3031	Organic Chemistry I	4
INGL	3__	Second Year English	3
Subtotal			<hr/> 19

Course Equivalence			Credits
MATE	3063	Calculus III	3
FISI	3172	Physics II	4
FISI	3173	Physics II Laboratory	1
BIOL	3012	General Biology II	4
QUIM	3032	Organic Chemistry II	4
INGL	3__	Second Year English	3
Subtotal			<hr/> 19-20

* Depends on the Advanced Exams and *College Board* scores.

University of Puerto Rico in Cayey

Articulated Transfer Bachelor's Degree in Sciences with a concentration in Chemistry.

First Year			Credits
First Semester			
QUIM	3131	General Chemistry I	3
QUIM	3133	General Chemistry I Laboratory	1
MATE	3171	Pre-Calculus I	3
ESPA	3101	Basic Spanish I	3
INGL	3101	Basic English I	3
CISO	3121	Introduction to Social Sciences I	3
Subtotal			16

Second Semester			Credits
QUIM	3132	General Chemistry II	3
QUIM	3134	General Chemistry II Laboratory	1
MATE	3172	Pre-Calculus II	3
ESPA	3102	Basic Spanish II	3
INGL	3102	Basic English II	3
CISO	3122	Introduction to Social Sciences II	3
Subtotal			16

Second Year			Credits
First Semester			
BIOL	3031	General Biology I	3
BIOL	3033	General Biology I Laboratory	1
MATE	3152	Calculus I	3
INGL	3201	English Composition and Reading I	3
HUMA	3101	Western Culture I	3
QUIM	3025	*Analytical Chemistry	4
Subtotal			17

Second Semester			Credits
BIOL	3103	General Biology II	3
BIOL	3104	General Biology II Laboratory	1
MATE	3053	Calculus II	3
INGL	3202	English Composition and Reading II	3
HUMA	3102	Western Culture II	3
FISI	3001	**General Physics I	4
FISI	3003	General Physics I Laboratory	
Subtotal			17

* As long as the course has the same codification, it will be up for convalidation and will be included as part of the transfer requisites. If an analytic course for students with a concentration in Chemistry is developed and approved, students will have to take it at the Cayey Campus and finish the second year Spanish Courses at the preceding Institution.

**If the student believes that the semester will be overloaded with Science and Mathematics concentration courses, he/she may choose taking a second year Spanish course instead of a Physics course.

UPR Río Piedras Campus

Articulated Transfer Bachelor's Degree in Chemistry

First Year			Credits
First Semester			
ESPA	3101	Basic Spanish I	3
*INGL	3101	Basic English I	3
INGL	3113	Basic English I Laboratory	0
QUIM	3001	General Chemistry I	4
QUIM	3003	General Chemistry I Laboratory	0
BIOL	3011	General Biology I	4
BIOL	3013	General Biology I Laboratory	0
**MATE	3171	Pre-Calculus I	3
EDFU	3005	Seminar: Adjustment to University Life	0
Subtotal			16

*INGL 3103 – Intermediate English I, if the student obtains a 650 score or more in the English section of the PEAU test.

**MATE 3005 – Pre-Calculus, if the student obtains a 650 score or more in the Mathematics section of the PEAU test.

Second Semester			Credits
ESPA	3102	Basic Spanish II	3
*INGL	3102	Basic English II	3
INGL	3114	Basic English II Laboratory	0
QUIM	3002	General Chemistry II	4
QUIM	3004	General Chemistry II Laboratory	0
BIOL	3012	General Biology II	4
BIOL	3014	General Biology II Laboratory	0
**MATE	3172	Pre-Calculus II	3
Subtotal			17

*INGL 3104 – Intermediate English II, if the student obtains a 650 score or more in the English section of the PEAU test.

**MATE 3031 – Calculus I, if the student takes and approves MATE 3005.

Second Year

First Semester

CISO	3121	Introduction to Social Sciences I	3
HUMA	3101	Western Culture I	3
QUIM	3031	Organic Chemistry I	4
QUIM	3033	Organic Chemistry I Laboratory	0
*MATE	3031	Calculus I	4
		Second Year Spanish	3
		<u>or</u> English	
Subtotal			<hr/> 17

*MATE 3032 – Calculus II, if the student takes and approves Calculus I

Second Semester

CISO	3122	Introduction to Social Sciences II	3
HUMA	3102	Western Culture II	3
QUIM	3032	Organic Chemistry II	4
QUIM	3034	Organic Chemistry II Laboratory	0
*MATE	3032	Calculus II	4
		Second Year Spanish	3
		<u>or</u> English	
Subtotal			<hr/> 17

University of Puerto Rico in Humacao

Articulated Transfer Bachelor's Degree in Electronic-Applied Physics.

CHEMISTRY

First Year

First Semester			Credits
MATE	3171	Pre-Calculus I	3
BIOL	3011	General Biology I	4
BIOL	3013	General Biology I Laboratory	3
INGL	3101	Basic English I	3
ESPA	3101	Basic Spanish I	3
HUMA	3101	Western Culture I	3
Subtotal			16

Second Semester			Credits
MATE	3172	Pre-Calculus II	3
BIOL	3012	General Biology II	4
BIOL	3014	General Biology II Laboratory	3
INGL	3102	Basic English II	3
ESPA	3102	Basic Spanish II	3
HUMA	3102	Western Culture II	3
Subtotal			16

Second Year

First Semester			Credits
MATE	3031	Calculus I	4
FISI	3011	General Physics I	3
FISI	3013	General Physics I Laboratory	1
QUIM	3001	General Chemistry I	4
QUIM	3003	General Chemistry I Laboratory	0
HIST	3245	History of Puerto Rico	3
CISO	3121	Introduction to Social Sciences I	3
Subtotal			18

Second Semester			Credits
MATE	3032	Calculus II	4
FISI	3012	General Physics II	3
FISI	3014	General Physics II Laboratory	1
QUIM	3002	General Chemistry II	4
QUIM	3004	General Chemistry II Laboratory	0
FISI	3135	Electric Circuits	3
CISO	3122	Introduction to Social Sciences II	3
Subtotal			18

University of Puerto Rico in Humacao

Articulated Transfer Bachelor's Degree in Industrial Chemistry

CHEMISTRY

First Year

First Semester			Credits
*MATE	3171	Pre-Calculus I	3
QUIM	3001	General Chemistry I	4
QUIM	3003	General Chemistry I Laboratory	0
INGL	3___	First Year English	3
*ESPA	3101	Basic Spanish I	3
CISO	3121	Introduction to Social Sciences I	3
Subtotal			<hr/> 16

Second Semester			Credits
MATE	3172	Pre-Calculus II	3
QUIM	3002	General Chemistry II	4
QUIM	3004	General Chemistry II Laboratory	0
*INGL	3___	First Year English	3
*ESPA	3102	Basic Spanish II	3
CISO	3122	Introduction to Social Sciences II	3
Subtotal			<hr/> 16

Second Year

First Semester			Credits
MATE	3031	Calculus I	4
BIOL	3011	General Biology I	4
BIOL	3013	General Biology I Laboratory	0
QUIM	3031	Organic Chemistry I	4
QUIM	3033	Organic Chemistry I Laboratory	0
INGL	3201	English Composition and Reading I	3
ESPA	3211	Introduction to Spanish Literature I	3
Subtotal			<hr/> 18

Second Semester			Credits
MATE	3032	Calculus II	4
BIOL	3012	General Biology II	4
BIOL	3014	General Biology II Laboratory	0
QUIM	3032	Organic Chemistry II	4
QUIM	3034	Organic Chemistry II Laboratory	0
INGL	3202	English Composition and Reading II	3
ESPA	3212	Introduction to Spanish Literature II	3
Subtotal			<hr/> 18



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ASSOCIATE DEGREES

HEALTH ALLIED STUDIES ASSOCIATE DEGREE PROGRAM IN PHYSICAL THERAPY SCIENCES

The Associate Degree Program in Physical Therapy Sciences prepares Physiotherapy Assistants. The Physiotherapy Assistant is a health professional that works under the direct supervision of a Physiotherapist licensed in or outside of Puerto Rico. The Program is designed so that the Associate Degree in Physical Therapy Sciences is completed in a lapse of two years. It includes credits in Technology related to the career as well as related subject matters and general education.

In accordance with the philosophy and goals of the Institution, the program's main objective is to develop in its alumni knowledge and the technical skills related to Physical Therapy as well as the basic knowledge and the identified interests with excellence in university Education. To be able to practice in Puerto Rico or in the United States, Physiotherapy Assistants, once they have obtained their Degree, must fulfill the requisites specified by law in order to take the certification exam offered by the Physical Therapy Examining Board of Puerto Rico.

Physical Therapy is a health allied profession whose main purpose is the optimal promotion of human health, and its function is the application of scientific principles to prevent, to identify, to value, and to correct or to alleviate sharp or chronic movement dysfunctions.

Physiotherapy Assistants aid Physiotherapists in providing Physical Therapy services in agreement with the established laws that regulate its practice. The Physiotherapy Assistant also fulfills the requisites established by the **American Physical Therapy Association** accreditation agency (**APTA**) and their educational division, the **Commission of Accreditation of Physical Therapy Education (CAPTE)**.

Through the scientific use of physical and manual agents such as heat, cold, air, light, electricity, water, sound, massage, and therapeutic exercises, rehabilitation objectives are achieved through Physical Therapy. This process also includes training in the use and handling of assisting equipment such as wheelchairs, crutches, canes, walking aids, rods, prosthesis, among others.

ASSOCIATE DEGREE IN PHYSICAL THERAPY SCIENCES

STUDY PROGRAM

First Year

First Semester		Credits
INGL	3101 Basic English I	3
INGL	3113 Basic English Laboratory I	0
BIOL	1011 Human Anatomy and Physiology I	4
BIOL	1012 Human Anatomy and Physiology I Laboratory	0
TEFI	1005 Introduction to Physical Therapy	3
TEFI	1006 Thermotherapy	4
TEFI	1007 Thermotherapy Laboratory	0
TEFI	1016 Hospital Techniques	2
TEFI	1017 Hospital Techniques Laboratory	0
	Guided Elective	2
	Subtotal	<hr/> 18

Second Semester		Credits
INGL	3102 Basic English II	3
INGL	3114 Basic English Laboratory II	0
BIOL	1013 Human Anatomy and Physiology II	4
BIOL	1014 Human Anatomy and Physiology II Laboratory	0
PSIC	3005 General Psychology	3
TFOC	1006 Introduction to Physical Dysfunction	4
TEFI	1008 Massage	2
TEFI	1009 Massage Laboratory	0
	Subtotal	<hr/> 16

Summer		Credits
TEFI	1015 Introduction to Clinical Experience	1

Second Year

First Semester		Credits
ESPA	3101 Basic Spanish I	3
CISO	3121 Introduction to Social Sciences I**	3
MATE	3001 Introductory Mathematics I	3
TFOC	1005 Functional Anatomy	3
TFOC	1008 Functional Anatomy Laboratory	0
TEFI	2001 Clinical Experience I	2
TEFI	2005 Therapeutic Exercises	4
TEFI	2006 Therapeutic Exercises Laboratory	0
	Subtotal	<hr/> 18

Second Semester			Credits
ESPA	3102	Basic Spanish II	3
CISO	3122	Introduction to Social Sciences II*	3
TFOC	1007	Psychosocial Dysfunction	3
TEFI	2002	Clinical Experience II	2
TEFI	2007	Functional Activities	4
TEFI	2008	Functional Activities Laboratory	0
TEFI	2009	Physical Therapy Application in Physical Dysfunction	4
TEFI	2013	Physical Therapy Application in Physical Dysfunction Laboratory	0
Subtotal			19
TOTAL OF CREDITS:			72

*6 credit courses CISO 3121-3122 can be substituted by the HUMA 3101-3102 courses.

ASSOCIATE DEGREE CIVIL ENGINEERING TECHNOLOGY IN ARCHITECTONIC DELINEATION

(This Program is undergoing a curricular revision; therefore, it is subject to changes.)

This Program prepares technical Professionals in the architectonic delineation area. These professionals will be able to perform as delineators at Surveying, Engineering, and Architectural design offices. The Program trains students to develop construction plans using traditional drawing instruments as well as with the Computer Aided Design Program (CAD). The curriculum of the Program also provides students with skills to work at soil and material laboratories, to estimate construction costs, and to transact documentation required by state and municipal agencies related to construction projects.

STUDY PROGRAM*

First Year			
First Semester			Credits
ESPA	3101	Basic Spanish I	3
INGL	3101	Basic English I	3
INGL	3113	Basic English Laboratory I	0
MATE	1001	Technical Mathematics	4
TECI	1005	Technical Drawing	3
TECI	2037	Materials and Construction Processes	4
Subtotal			17

Second Semester			Credits
ESPA	3102	Basic Spanish II	3
INGL	3102	Basic English II	3
INGL	3114	Basic English Laboratory II	0
MATE	1002	Technical Mathematics II	4
TECI	1007	Architectural Drawing	3
FISI	1001	Technical Physics I	3
Subtotal			<hr/> 16

Second Year				
First Semester			Credits	
TECI	2001	Architectural Delineation I	3	
TECI	2007	Costs Estimate	2	
TECI	2012	Materials Testing Laboratory	2	
TECI	2036	Statics and Resistance of Materials	5	
TECI	2049	Introduction to Computerized Systems	2	
		Social-Humanities Elective	3	
Subtotal			<hr/> 17	

Second Semester			Credits	
TECI	2002	Architectural Delineation II	3	
TECI	2008	Reinforced Concrete	3	
TECI	2015	Structural Steel	3	
TECI	2035	Construction Management	4	
		Social-Humanities Elective	3	
		Guided Elective**	2 or 3	
Subtotal			<hr/> 18 or 19	

TOTAL OF CREDITS: 68 or 69

*Program is in the process of evaluation and revision.

**Guided Electives:

TECI 2003-Soil Testing and Foundations (3 credits)

TECI 2009-Aqueducts and Sewage Systems (3 credits)

TECI 2045-Soils and Pavements (2 credits)

TECI 2046-Architectural Models (2 credits)

ASSOCIATE DEGREE IN CIVIL ENGINEERING TECHNOLOGY IN CONSTRUCTION

(This Program is undergoing a curricular revision; therefore, it is subject to changes.)

The Program trains technical Professionals associated with the construction of Civil Engineering projects. The Program alumni will be able to perform at Designing Offices or in the construction field as engineer, architect, or surveyor assistants achieving the following functions: measurement and parceling of properties, material and soil laboratory technicians, construction and quality control inspection, and estimation of construction costs.

The Program provides knowledge in computers as well as in obtaining the documentation required by state and municipal agencies, such as Construction and Use permits.

The two academic years of this Program are not equivalent to the first two years of the Bachelor's Degree in Civil Engineering or of the Bachelor's Degree in Surveying, and do not offer students the knowledge to design construction projects nor to submit them to the agencies which grant the permits to build them.

STUDY PROGRAM*

First Year

First Semester			Credits
ESPA	3101	Basic Spanish I	3
INGL	3101	Basic English I	3
INGL	3113	Basic English Laboratory I	0
MATE	1001	Technical Mathematics	4
TECI	1005	Technical Drawing	3
TECI	2037	Materials and Construction Processes	4
Subtotal			<hr/> 17

Second Semester			Credits
ESPA	3102	Basic Spanish II	3
INGL	3102	Basic English II	3
INGL	3114	Basic English Laboratory II	0
MATE	1002	Technical Mathematics I	4
TECI	1007	Architectural Drawing	3
FISI	1001	Technical Physics I	3
Subtotal			<hr/> 16

Second Year

First Semester			Credits
TECI	2005	Surveying I	3
TECI	2007	Costs Estimate	2
TECI	2012	Materials Testing Laboratory	2
TECI	2036	Statics and Resistance of Materials	5
TECI	2049	Introduction to Computerized Systems	2
		Social-Humanities Elective	3
Subtotal			17

Second Semester			Credits
TECI	2006	Surveying II	3
TECI	2008	Reinforced Concrete	3
TECI	2015	Structural Steel	3
TECI	2035	Construction Management	4
		Social-Humanities Elective	3
		Guided Elective**	2 or 3
Subtotal			18 or 19

TOTAL OF CREDITS: 68 or 69

*Program is under revision

**Guided Electives:

TECI 2003- Soil Testing and Foundations (3 credits)

TECI 2009-Aqueducts and Sewage Systems (3 credits)

TECI 2045-Soils and Pavements (2 credits)

TECI 2047- Introduction to the Geometric Design of Highways (2credits)

TECI 2057-Computer Aided Technical Drawing (Basic AutoCAD) (2 credits)

ASSOCIATE DEGREE IN INDUSTRIAL ENGINEERING TECHNOLOGY

(This Program is undergoing a curricular revision; therefore, it is subject to changes.)

The Program's objective is to train people that can integrate human resources with machinery resources and industrial equipment with the purpose of maximizing production and services at the lowest cost possible.

The Program utilizes industrial engineering, quantitative methods, scientific management, and human resource approaches. It also includes a general culture component achieved through general study courses.

The industrial engineering technician does not substitute, but rather complements the industrial engineer, helping him/her to achieve higher productivity. Among the technician's tasks are work measurement, operation standardization, working area design, plant unfolding and quality and cost control.

STUDY PROGRAM

First Year

First Semester			Credits
INGL	3101	Basic English I	3
INGL	3113	Basic English Laboratory I	0
MATE	1001	Technical Mathematics I	4
SICI	1008	Introduction to Computers	4
TIIN	1005	Industrial Organization	3
		Social-Humanities Elective	3
Subtotal			17

Second Semester			Credits
INGL	3102	Basic English II	3
INGL	3114	Basic English Laboratory II	0
MATE	1002	Technical Mathematics II	4
MATE	3015	Elementary Statistics	3
TECI	1005	Technical Drawing	3
TIIN	1015	Industrial Safety	3
TIIN	1008	Engineering Materials	3
Subtotal			19

Second Year

First Semester			Credits
ESPA	3101	Basic Spanish I	3
TIIN	2009	Quality Control	3
TIIN	2010	Methods Design	4
TIIN	2020	Methods Design Practice	0
TIIN	2016	Engineering Accounting	4
TIIN	2026	Engineering Accounting Practice	0
		Guided Elective*	3
Subtotal			17

Second Semester			Credits
ESPA	3102	Basic Spanish II	3
TIIN	2015	Production Control	3
TIIN	2017	Industrial Economics	3
TIIN	2018	Plants Deploy	4
TIIN	2028	Plants Deploy Project	0
TIIN	2011	Work Measurement	3
TIIN	2021	Work Measurement Practice	0
Subtotal			<hr/> 16

TOTAL OF CREDITS: 69

*Guided Electives:

- TIIN 2005-Industrial Supervision (3 credits)
- ADMI 3005-Administrative Theory (3 credits)
- REHU 4409-Human Relations (3 credits)
- REHU 4405-Human Resources Management (3 credits)

ASSOCIATE DEGREE IN OFFICE SYSTEMS

(This Program is undergoing a curricular revision; therefore, it is subject to changes.)

In two years, students will take: 42 Specialty credits, 22 credits in related subject matters and general Education, and 9 elective credits. After completing 24 credits, the student can request admission to the Bachelor's Program.

The objectives of the Program leading to the Associate Degree in Office Systems are:

1. To provide technical and general Education that qualifies the student to be incorporated into workforce after finishing an associate degree.
2. To train the students in the use of the different application programs, such as: word processing, electronic calculation sheets, databases and graphics, among others.
3. To train students in the processes of document administration: control of specialized records, data processing, microfilm, and electronic files.
4. To prepare students for the application of basic Accounting principles.
5. To develop effective communication skills in Spanish as well as in English.
6. To develop personality traits and features which contribute to the success of students as professionals and citizens.
7. To contribute to satisfy the needs of the community for personnel specialized in administrative support.

First Year- First Semester

		Credits
INGL 3101	Basic English I	3
INGL 3113	Basic English I Laboratory	0
ESPA 3101	Basic Spanish I	3
SOFI 3005	Basic Typewriting	3
SOFI 3017	Interpersonal Relationships in the Office	3
SOFI 3015	Computer Concepts	3
	Liberal Arts Elective	<u>3</u>
	Subtotal	18

Second Semester

INGL 3102	Basic English II	3
INGL 3114	Basic English II Laboratory	0
ESPA 3102	Basic Spanish II	3
SOFI 3215	Speedwriting in Spanish	5
SOFI 3217	Introduction to Spanish Transcription	4
SOFI 3105	Documents Production I++	2
SOFI 3106	Documents Production I Laboratory	0
SOFI 3125	Word Processing	2
SOFI 3126	Word Processing Laboratory	0
	Liberal Arts Elective	<u>3</u>
	Subtotal	17/18

Second Year - First Semester

ESCO 3005	Composition Principles & Business Documents	3
INCO 3005	Business English I	3
SOFI 3315	Speedwriting in English or	5
SOFI 3327	Spanish Transcription++	4
SOFI 3317	Introduction to English Transcription	4
SOFI 3218	Documents Production II	2
SOFI 3219	Documents Production II Laboratory	
0		
SOFI 3210	Documents Administration	3
INCO 3025	Conversational English	<u>1</u>
	Subtotal	20/21

Second Semester

INCO 3006	Business English II	3
SOFI 3328	English Transcription ++	4
SOFI 3355	Administrative Office Procedures	3
SOFI 3357	Elemental Procedures in Accounting	
3		
SOFI 3305	Information Processing	2
SOFI 3306	Information Processing Laboratory	0
	Free Elective	<u>3</u>
	Subtotal	18

TOTAL OF CREDITS: 73

++These courses must be approved with a minimum of a "C".



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BACHELOR'S DEGREES

BUSINESS ADMINISTRATION

(This Program is undergoing a curricular revision; therefore, it is subject to changes.)

The Bachelor's Program is designed to develop Business Administration professionals, specially in the Accounting, Management, Marketing, and Finance areas.

Vision

The Business Administration Program aspires to be recognized for its academic and professional excellence.

Mission

To develop professional leaders with ethical values capable of successfully performing as managers and administrators or to continue into graduate studies, and to deliver innovative contributions to the development of the economic, social, and educational sectors which are driven and influenced by informational technology and global markets, and to stimulate applied and academic investigation by professors and students in order to satisfy the present and future challenges that can contribute to the progress of Puerto Rico with an emphasis in the Southern area.

Declaration of Values

The values of integrity, responsibility, justice, respect, and trust are the guidelines so that the faculty, students, and non faculty personnel may fulfill the mission of the Business Administration Department. These values will unify the Department in the search of academic excellence and of its goals and purposes within the framework of personal and professional responsibilities based on an ethical-social conduct.

Integrity: To act in a righteous, honest, and impeccable way in the execution of ones' duties. To be committed to the search of the truth, to avoid situations that can imply possible conflicts of interest and to be models of decency and decorum for the community.

Responsibility: To be committed to the faithful execution of ones' obligations in a diligent way and with readiness. This value involves the commitment of offering effective services so that an optimal use of the resources is made, and that properly based decisions are made and that one is responsible for the actions carried out. Integral service to the students is a responsibility of high-priority.

Justice: In order to show objectivity and impartiality at the moment of making decisions, one must be guided by duty and one's conscience in the application of norms and regulations that affect academic and administrative activities. The awarding of promotions, evaluations, and qualifications will be established upon the basis of intellectual and professional merits and not on subjective factors.

Respect: To treat all people with dignity and protect their rights and make an effort to propitiate an environment of mutual respect and tolerance for the diversity of opinions, participation in the deliberative processes, and differences of criteria. This is essential to nurture the creative expression that characterizes the University.

Trust: To act in a firm and assured manner in all communications and actions. True actions are characterized by transparency, equity, and exactitude in all processes. The right to privacy will be respected and will be fostered among all components.

The objectives of the Program are:

1. To develop personnel with skills, attitudes, and basic characteristic knowledge of the different areas that Business Administration embraces.
2. To provide students with an educational opportunity that, when practiced, allows them to administer their own business and serves them to best act professionally and socially.
3. To offer a University education in which the technical aspects of Business Administration are complemented by the arts, culture, science, and sports.
4. To lead students by means of the use of logic, critical reasoning, and creative thought to identify, analyze, and evaluate any problematic situations they encounter in order to make the best decisions.

Alumni Profile

1. To be able to identify and to evaluate external factors affecting the company and the achievement of the goals of the organization.
2. To apply administrative theories and related organizational behavior, and group theory concepts that can affect the circumstances in which business organizations perform.
3. To use models developed in Accounting, Finance, Economic theories, and other areas to promote efficiency in the organization in which he/she works.
4. To use decision making related skills as well as analysis and synthesis to achieve effectiveness and efficiency in the company in which he/she works.
5. To effectively manage the planning, organizing, and controlling processes of goods and service production systems.
6. To interpret and to use the data related to cost accounting of a manufacturing and/or service company in order to design a budget which reflects the goals and objectives of the company in which he/she works.
7. To identify, to apply, and to interpret the generally accepted principles of Accounting.
8. To apply the use of electronic information processing systems to the solution of accounting and management problems.
9. To apply the principles of effective oral and written communication while working in groups.
10. To assume positions of leadership in the administration of a company.
11. To identify and to analyze the legal consequences and the relevant variables of problems that arise in the commercial institution in which they work.
12. To analyze quantitative information related with the price projections of a product.
13. To understand and to effectively use concepts related with macro and micro economy.
14. To face and use in an effective way the pressure and stress of an intense work environment.

15. To be responsible and to display a professional conduct in the performance of their work.

Concentration in Management

The concentration in Management is aimed at preparing candidates to occupy different positions of leadership in a company. The Program curriculum includes the application of administrative theories and concepts related to organizational behavior and group theories that can affect the environment of a company. An emphasis is given to the administration of human resources.

Concentration in Finance

The concentration in Finance is of particular interest to students who want to work in banking and brokerage agencies or fiduciary enterprises, for it provides them with the skills to perform planning and financial analysis functions.

Concentration in Accounting

The concentration in Accounting provides students with the tools needed to work in the public accounting field, with government or with private companies in general. It also provides them with the appropriate knowledge to prepare and analyze financial statements necessary for the decision making process.

Concentration in Marketing

Students interested in occupying administrative positions in the area of sales and marketing should select this concentration. It gives emphasis to the use of analytic investigation techniques, evaluation, market development, promotion, distribution, and product selling techniques.

BACHELOR'S DEGREE IN BUSINESS ADMINISTRATION (BBA)

STUDY PROGRAM

First Year			Credits
First Semester			
INGL	3101	Basic English I	3
<u>or</u> INGL	3103	Intermediate English I	
HUMA	3101	Introduction Western Culture I	3
<u>or</u> CISO	3121	Introduction to Social Sciences I	
SICI	4008	Principles of Electronic Data Processing	4
REHU	4409	Human Relations	3
CONT	3005	Introduction to Fundamentals of Accounting I	4
Subtotal			17

Second Semester			Credits
INGL	3102	Basic English II	3
<u>or</u> INGL	3104	Intermediate English II	
HUMA	3102	Introduction Western Culture II	3
<u>or</u> CISO	3122	Introduction to Social Sciences II	
MATE	3011	Quantitative Methods I	3
CONT	3006	Introduction to Fundamentals of Accounting II	4
ECON	3021	Principles of Economics I	3
Subtotal			<u>16</u>

Second Year

First Semester			Credits
ESPA	3101	Basic Spanish I	3
INCO	3005	Business English I	3
ADMI	3005	Administrative Theory	3
ECON	3022	Principles of Economics II	3
MATE	3012	Quantitative Methods II	3
*		Guided Elective	3 or 4
Subtotal			<u>18-19</u>

Second Semester			Credits
ESPA	3102	Basic Spanish II	3
INCO	3006	Business English II	3
ESTA	3001	Business Statistics I	3
MATE	3013	Quantitative Methods III	3
MERC	3115	Principles of Marketing	3
*		Guided Elective	3 or 4
Subtotal			<u>18-19</u>

Third Year

First Semester			Credits
ESCO	3001	Psychology of Communication I	3
ESTA	3002	Business Statistics II	3
FINA	3006	Business Finance	3
*		Guided Elective	3
*		Guided Elective	3 or 4
Subtotal			<u>15-16</u>

Second Semester			Credits
ESCO	3002	Psychology of Communication II	3
INCO	4006	Report Writing	3
FINA	3007	Money and Banking	4
	*	Guided Elective	3
	*	Guided Elective	3 or 4
Subtotal			16-17

Fourth Year

First Semester			Credits
DEME <u>or</u>	4005	Business Law or	4 or 3
GERE	4035	Analysis for Decision Making	
	*	Guided Elective	3 or 4
		Free Elective	3
		Free Elective	3
Subtotal			13-14

Second Semester			Credits
ADMI	4019	Responsibilities of Free Enterprise	3
	*	Guided Elective	3
	*	Guided Elective	3 or 4
		Free Elective	3
		Free Elective	3
Subtotal			15-16

TOTAL BACHELOR CREDITS : 127-135

** Guided Electives: The student must take nine (9) courses in order to complete concentration requisites.*

Concentration	Total credits
Management	127-129
Marketing	127-128
Finance	127-128
Accounting	134-135**

Note: The specific distribution of each concentration is available at its corresponding Department or at the UPR-Ponce Web page.

***A curricular sequence for students interested in taking the CPA examination is available.*

GUIDED ELECTIVES

Concentration in Accounting – students must take nine (9) courses in order to complete concentration requisites **Credits**

CONT	3007	Intermediate Accounting I	4
CONT	3008	Intermediate Accounting II	4
CONT	3025	Cost Accounting	4
CONT*	3035	Advanced Accounting	4
CONT*	4005	Cost Accounting II	4
CONT*	4016	Modern Developments in Accounting	3
CONT*	4017	Theory and Principles of Auditing and Systems	3
CONT	4038	Federal Income Tax	4
CONT*	4039	Income Tax of Puerto Rico	4
CONT****	4026	Internship Program in Accounting	4
CONT****	4097	Seminar for Professional Accounting I	1
CONT****	4049	Principles to Examine Fraud	4
Total concentration credits			34

Concentration in Finance – students must take nine (9) courses in order to complete concentration requisites **Credits**

BASE	2007	Financial Statements Analysis	3
FINA*	3005	Introduction to Insurance	3
FINA	4005	Life Insurance	3
FINA*	4009	Credit and Collection	3
FINA*	4015	Bank Administration	3
FINA*	4016	Real Estate	3
FINA*	4039	Public Finance	3
FINA	4050	Financial Markets	3
CONT***	4036	Managerial Accounting	4
MERC***	4005	International Marketing	3
Total concentration credits			28

Concentration in Management–students must take nine (9) courses in order to complete concentration requisites **Credits**

ADMI*	4007	Strategic Management	3
CONT*	4036	Managerial Accounting	4
GERP	2005	Production Management	3
GERP	4027	Principles of General Supervision	3
MERC	4027	Advertising	3
MERC**	4215	Retailing Management	3
MERC**	4216	Sales Principles and Practices	3
REHU*	4405	Human Resources Management	3

REHU*	4406	Labor-Management Relations	3
REHU	4407	Compensation Systems	3
REHU*	4408	Organizational Behaviour	3
REHU	4426	Collective Bargaining	3
REHU	4419	Labor Law and Jurisprudence	3
PSIC	3116	Industrial Psychology	3
GERE	4027	Principles of General Supervision	3
Total concentration credits			28

Free Electives ****

REHU	4450	Internship in Human Resources Management	3
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Concentration in Marketing – students must take nine (9) courses in order to complete concentration requisites

			Credits
MERC*	4006	The Art of Selling	3
MERC*	4027	Advertising	3
MERC*	4216	Sales Principles and Practices	3
MERC	4219	Intermediate Marketing	3
MERC	4215	Retailing Management	3
MERC*	4005	International Marketing	3
MERC*	4007	Marketing Research	3
MERC	4036	Public Relations	3
MERC*	4217	Consumer Behavior	3
Total concentration credits			27

Free Electives ****

MERC 4128	Product Management	3
MERC 4218	Management of Physical Distribution	3
MERC 4235	Internship in Marketing	3

*Required concentration course.

**The course can be selected as a guided elective.

***One of these courses can be selected to complete the nine (9) courses required.

****The Department offers these courses which can be chosen for the fulfillment of free elective requirements (12 credits.).

BACHELOR'S DEGREE IN COMPUTER SCIENCE TECHNOLOGY WITH A CONCENTRATION IN COMPUTERIZED INFORMATION SYSTEMS

(This Program is undergoing a curricular revision; therefore, it is subject to changes.)

Vision

To be the Computer Science Program with a concentration in Computerized Information Systems that best develops the potential of students in order to form citizens which contribute to the well being of the Island.

Mission

The purpose of the Computer Science Program with a concentration in Computerized Information Systems of the University of Puerto Rico in Ponce is:

1. To qualify students so that they are responsible, ethical, and successful professionals.
2. To qualify its alumni to continue professional studies.
3. To qualify its alumni to upgrade their knowledge through self study and learning.
4. To fulfill the demand of specialized services in the area.

Objectives

The Bachelor's in Computer Sciences with a Concentration in Computerized Information Systems of the University of Puerto Rico in Ponce pursues the following objectives:

1. To provide students with the necessary skills and knowledge so that they can perform as analysts and designers of information systems.
2. To qualify students so that they can perform as programmers.
3. To qualify students so that they can administer a programming project.
4. To provide students with the necessary skills to develop effective communication.
5. To qualify students for the execution of independent study.

Alumni Profile

The alumni of the Bachelor's Degree in Computer Sciences Program of the University of Puerto Rico in Ponce are qualified:

1. To know and to work with efficiency in the different stages of the life cycle system of: planning, analysis, design, development, tests, maintenance, and auditing.
2. To dominate, at least, a language of the third generation or fourth generation guided to objects.
3. To know and work with Internet systems.
4. To work with Information System users to solve interaction problems when using computers.
5. To communicate project ideas or results in written as well as in verbal formats.

6. To work individually or as team members on an assigned programming or systematizing project.
7. To know the basic principles and techniques to direct people and tasks in the administration of a project.

STUDY PROGRAM

First Year

First Semester			Credits
INGL	3101	Basic English I	3
INGL	3113	Basic English Laboratory I	0
SICI	3011	Introduction to Computer Science I	3
SICI	3005	Basic Principles of Data Processing	3
MATE	3171	Pre-Calculus I	3
CISO	3121	Introduction to Social Sciences I	3
SICI	3001	Programming in Basic	2
Subtotal			17

Second Semester			Credits
INGL	3102	Basic English II	3
INGL	3114	Basic English Laboratory II	0
SICI	3012	Introduction to Computer Science II	3
SICI	3002	COBOL Programming	4
MATE	3172	Pre-Calculus II	3
CISO	3122	Introduction to Social Sciences II	3
Subtotal			16

Second Year

First Semester			Credits
ESPA	3101	Basic Spanish I	3
MATE	3031	Calculus I	4
SICI	3009	Data Bank	3
SICI	3015	Analysis and Design of Information Systems	3
CONT	3005	Introduction to Fundamentals of Accounting I	4
Subtotal			16

Second Semester			Credits
ESPA	3102	Basic Spanish II	3
ESTA	3001	Business Statistics I	3
SICI	4020	Advanced Structured Systems Analysis and Design	3
SICI		Guided Elective	2 or 3
SICI		Guided Elective	2
CONT	3006	Introduction to Fundamentals of Accounting II	4
Subtotal			16 or 17

Third Year

First Semester			Credits
HUMA	3101	Introduction Western Culture I	3
ESTA	3002	Business Statistics II	3
SICI	3008	Operating Systems of Minicomputers and Microcomputers	3
SICI	3016	Project Implementation	4
ECON	3021	Principles of Economics I	3
FILO	4031	Logic I	3
Subtotal			19

Second Semester			Credits
HUMA	3102	Introduction Western Culture II	3
FINA	3006	Business Finance	3
MERC	3115	Principles of Marketing	3
SICI	4030	DATABASE Program Development	3
SICI		Guided Elective	3
		Free Elective	3
Subtotal			18

Fourth Year

First Semester			Credits
ADMI	3005	Administrative Theory	3
FISI	4038	Fundamentals of General Physics	4
FISI	4039	Fundamentals of General Physics Laboratory	0
SICI		Guided Elective	3
		Free Elective	3
		Free Elective	3
Subtotal			16

Second Semester			Credits
SICI	4038	Research Workshop	4
INGL	3116	Commercial Communication Compendium	3
GERP	2005	Production Management	3
SICI		Guided Elective	3
		Free Elective	3
Subtotal			16

TOTAL BACHELOR'S CREDITS 134 or 135

Guided Electives (13-15 credits)

Guided Electives – Student will take five (5) Courses.

Codification	Computer Sciences Option
ESCO 4005	Technical Report Writing
SICI 4066	Computer Assisted Instruction
SICI 4175	Introduction to Java Programming
SICI 3001	Programming in Basic
SICI 3019	Information Systems Auditing and Control
SICI 3028	Application Software
SICI 3030	Telecommunications
SICI 4039	Computer Law

NATURAL SCIENCES

The Biology Department of the University of Puerto Rico in Ponce offers a Bachelor's Degree in Natural Sciences with two concentrations: Biomedicine and Biology in which students are provided with an integral education, the acquisition of skills, knowledge, and positive attitudes in order to serve society through the use of Biology as an axis.

Both Bachelor's Degrees prepare biologists with the necessary competencies to contribute to the development of technology and investigation, and to execute professions in which technology is used, without losing the perspective that they are part of a society. The Program aims at educating scientists committed to serving society as well as capacitating its alumni for continuing graduate studies in diverse areas according to the concentrations selected. These Bachelor's Degrees contribute to the fulfilment of the Sciences and Technology Policy of the University of Puerto Rico, which among its strategies has the goal of developing Programs to prepare researchers and specialists in areas related to the Biology and Health fields.

Both Bachelor's Program concentrations possess a general as well as a professional education component. The first component includes a series of courses in Humanities and Social Sciences among others; through which students acquire occidental social and cultural foundations, in particular those of Puerto Rico. The integration of the Bioethics and Science Philosophy courses complete the formation of students in the Humanities area. The second area includes courses in Physics, Mathematics, and Chemistry which helps students to understand Biology concepts and contributes to strengthen their preparation in Sciences. The Program also includes a great variety of courses through which students can fulfill the free and guided elective component.

Each Bachelor's Program requires a number of specific professional courses. The Bachelor's degree in Biomedicine includes such courses as: Human Biology, Genetics, Microbiology, Humanity and the Environment, and Immunology. On the other hand, the Bachelor's degree in Biology includes such courses as: Genetics, Ecology, Plant Organismal Biology, Animal Organismal Biology, Cellular and Molecular Biology, and Biometry. In addition, the Program includes requisite courses that make use of computers. The Bachelor's degree in Biomedicine

particularly contains requisites that fulfill the formative needs of students interested in continuing studies in Health related areas. The Bachelor's degree in Biology provides the foundations to continue graduate studies in Biology.

The scope of the Bachelor's Programs contributes to the development of professionals that help to foster the scientific and technological competitiveness of Puerto Rico in the 21st century. The incorporation of the biosocial element contributes to the formation of biologists conscious of the relation between science and society. For the University of Puerto Rico in Ponce, this Program embodies the means to offer students from the Southern region of the Island the opportunity to complete a Bachelor's degree in Natural Sciences at the Institution; specially those students with low financial resources. The impact of a Bachelor's degree can be considered from various viewpoints:

Social

1. It offers Southern region and adjacent area students with the possibility of completing a Bachelor's degree in Sciences at their own residential zone without having to move to other points of the Island.
2. It permits students with vocation for Biomedicine and Biology to obtain a preparation of excellence and finish a degree in the academic area of their preference.

Economic

1. It prepares competent professionals that can contribute their knowledge to society in a responsible manner according to the needs of the social and economic development of the Southern region.

Due to its nature as an island, Puerto Rico has the need to constantly evaluate and monitor the status of the quality of its coastal areas and oceans. Ponce is precisely located in the Southern coastal area, which needs capable professionals to support and play a determining role in the evaluation of the quality of water, coastal areas, agriculture, and biodiversity in general, and to directly influence the social and economic development of the Island's population.

Based on a balanced and diverse academic offer, the Bachelor's Program develops professionals with the necessary training to work as Biology environmental researchers, consultants, and evaluators that can make decisions and recommend solutions for situations that can affect society based on their knowledge of biological principles.

With the constant advance of technology, corporations and industries related to the fields of Biology and Health will be able to count on the availability of Biomedicine and Biotechnology trained professionals

**BACHELOR'S DEGREE IN NATURAL SCIENCES
WITH A CONCENTRATION IN BIOMEDICINE (126 credits)**

First Year

First Semester		Credits
BIOL 3011	General Biology I	4
BIOL 3013	General Biology I Laboratory	0
CISO 3121	Introduction to Social Sciences I	3
ESPA 3101	Basic Spanish I	3
MATE 3171	Pre-Calculus I	3
QUIM 3001	General Chemistry I	4
QUIM 3003	General Chemistry I Laboratory	<u>0</u>
Subtotal		17

Second Semester		Credits
BIOL 3012	General Biology II	4
BIOL 3014	General Biology II Laboratory	0
CISO 3122	Introduction to Social Sciences II	3
ESPA 3102	Basic Spanish II	3
MATE 3172	Pre-Calculus II	3
QUIM 3002	General Chemistry II	4
QUIM 3004	General Chemistry II Laboratory	<u>0</u>
Subtotal		17

Second Year

First Semester		Credits
BIOL 3791	Human Biology III ^{CC}	4
BIOL 3793	Human Biology III Laboratory	0
<u>or</u> BIOL 3305	Genetics ^{CC}	4
BIOL 3306	Genetics Laboratory	0
ESPA 3015	Grammar and Composition (or its equivalent)	3
INGL 3101	Basic English I	3
INGL 3113	Basic English Laboratory I	0
MATE 3021	Calculus I for Biological Sciences	3
QUIM 3031	Organic Chemistry I	4
QUIM 3033	Organic Chemistry I Laboratory	<u>0</u>
Subtotal		17

CC – Concentration course in suggested sequence.

Second Semester		Credits
BIOL 3792	Human Biology IV ^{CC}	4
BIOL 3794	Human Biology IV Laboratory	0
<u>or</u> BIOL 4755	Histology ^{CC}	3
BIOL 4756	Histology Laboratory	
BIOL 3018	Developmental Biology	4
BIOL 3028	Developmental Biology Laboratory	0
INGL 3102	Basic English II	3
INGL 3114	Basic English II Laboratory	0
MATE 3022	Calculus II for Biological Sciences	3
QUIM 3032	Organic Chemistry II	4
QUIM 3034	Organic Chemistry II Laboratory	0
	Free Elective	<u>3</u>
Subtotal		16-17

Third Year

First Semester		Credits
BIOL 3705	General Microbiology ^{CC}	4
BIOL 3707	General Microbiology Laboratory	0
<u>or</u> BIOL 4041	Human Genetics ^{CC}	3
FISI 3011	General Physics I	3
FISI 3013	General Physics I Laboratory	1
INGL 4021	Technical Report Writing for Biology	3
	Humanities Elective	3
	Guided Elective	<u>3</u>
Subtotal		16-17

Second Semester		Credits
BIOL 4375	Clinical Microbiology ^{CC}	3
BIOL 4376	Clinical Microbiology Laboratory	0
<u>or</u> BIOL 4056	Introduction to the Immunology	3
BIOL 3909	Biology Seminar ^{CC}	1
FISI 3012	General Physics II	3
FISI 3014	General Physics II Laboratory	1
PSIC 3005	General Psychology	3
	Free Elective	<u>3</u>
Subtotal		14-17

CC – Concentration course in suggested sequence.

Fourth Year

First Semester		Credits
BIOL 3740	Biometry	3
BIOL 3907	Cellular and Molecular Biology ^{CC}	3
<u>or</u> BIOL 3010	Cellular and Molecular Biology	3
BIOL 3020	Cellular and Molecular Biology Laboratory	0
QUIM 4055	Biochemistry ^{CC}	4
FILO 4028	Bioethics	3
	Free Elective	<u>3</u>
	Subtotal	16

Second Semester		Credits
BIOL 3155	Humanity and the Environment ^{CC}	3
<u>or</u> BIOL 3108	Undergraduate Research	2
	Humanities Elective	3
	Guided Elective	3
	Free Elective	<u>3</u>
	Subtotal	12-14

CC – Concentration course in suggested sequence.

Students wishing to study medicine must take their free electives in Social-Sciences and/or Human Behavior Sciences.

Total of Concentration Courses

Topic	Courses	Credits
A	BIOL 3018/3028	Developmental Biology/Lab. 4/0
	BIOL 3791/3793	Human Biology III/Lab. 4/0
	BIOL 3792/3794	Human Biology IV/ Lab. 4/0
	BIOL 4795/4796	Histology/Lab. 3
B	BIOL 3305/3306	Genetics /Lab 4/0
	BIOL 4041	Human Genetics 3
C	BIOL 3907	Cellular and Molecular Biology 3
	BIOL 3010/3020	Cellular and Molecular Biology/Lab 3/0
	QUIM 4055	Biochemistry 3
D	BIOL 3705/3707	General Microbiology/Lab 4/0
	BIOL 4056	Introduction to the Immunology 3
	BIOL 4375/4376	Clinical Microbiology 4/0
	BIOL 4426	Animal Parasitology/Lab 3/0
E	BIOL 3108	Undergraduate Research 2
	BIOL 3909	Biology Seminar 1
F	BIOL 3155	Humanity and the Environment 3
	BIOL 4033	Biosocial and Environmental Topics 3

The total concentration course credits are 25. Among these there should be included at least one course on each topic.

Guided Electives

		Credits
FILO 4471	Philosophy of Science I	3
MATE 3026	Introduction to Statistics with Computers	3
SICI 3028	Application Software	3
GERO 3005	Gerontology Theory	3
<u>or</u> SOCI 3285	Social Dynamics	3
<u>or</u> SOCI 3335	Social Disorganization	3

Free Electives
(12 credits)

BACHELOR'S DEGREE IN NATURAL SCIENCES WITH A CONCENTRATION IN BIOLOGY AND SUB-CONCENTRATION IN BIODIVERSITY EVALUATION (125 credits)

First Year

First Semester		Credits
BIOL 3011	General Biology I	4
BIOL 3013	General Biology I Laboratory	0
QUIM 3001	General Chemistry I	4
QUIM 3003	General Chemistry I Laboratory	0
CISO 3121	Introduction to Social Sciences I	3
ESPA 3101	Basic Spanish I	3
MATE 3171	Pre-Calculus I	<u>3</u>
	Subtotal	17

Second Semester		Credits
BIOL 3012	General Biology II	4
BIOL 3014	General Biology II Laboratory	0
QUIM 3002	General Chemistry II	4
QUIM 3004	General Chemistry II Laboratory	0
CISO 3122	Introduction to Social Sciences II	3
ESPA 3102	Basic Spanish II	3
MATE 3172	Pre-Calculus II	<u>3</u>
	Subtotal	17

Second Year

First Semester		Credits
BIOL 3425	Animal Organismal Biology	4
BIOL 3426	Animal Organismal Biology Laboratory	0
<u>or</u> BIOL 3417	Plant Organismal Biology	4
BIOL 3418	Plant Organismal Biology Laboratory	0
<u>or</u> BIOL 3705	General Microbiology	4
BIOL 3707	General Microbiology Laboratory	0
QUIM 3031	Organic Chemistry I	4
QUIM 3033	Organic Chemistry I Laboratory	0
MATE 3021	Calculus I for Biological Sciences	3
ESPA 3015	Grammar and Composition (or its equivalent)	3
INGL 3101	Basic English I	3
INGL 3113	Basic English I Laboratory	0
	Subtotal	17

Second Semester		Credits
BIOL 3305	Genetics	4
BIOL 3306	Genetics Laboratory	0
QUIM 3032	Organic Chemistry II	4
QUIM 3034	Organic Chemistry II Laboratory	0
MATE 3022	Calculus II for Biological Sciences	3
INGL 3102	Basic English II	3
INGL 3114	Basic English II Laboratory	0
	Free Elective	3
	Subtotal	17

Third Year

First Semester		Credits
BIOL 3115	General Ecology	4
BIOL 3116	General Ecology Laboratory	0
FISI 3011	General Physics I	3
FISI 3013	General Physics I Laboratory	1
	Social Sciences Elective	3
	Humanities Elective	3
	Free Elective	3
	Subtotal	17

Second Semester		Credits
BIOL	Required Course	3 or 4
BIOL 3909	Biology Seminar	1
FISI 3012	General Physics II	3
FISI 3014	General Physics II Laboratory	1
INGL 4021	Technical Report Writing for Biology	3
	Humanities Elective	3
	Subtotal	14 or 15

Fourth Year

First Semester		Credits
BIOL 3010	Cellular and Molecular Biology	3
BIOL 3020	Cellular and Molecular Biology Laboratory	0
BIOL 3108	Undergraduate Research	2
FILO 4028	Bioethics	3
	Guided Elective	3
	Free Elective	<u>3</u>
	Subtotal	14

Second Semester		Credits
BIOL 3740	Biometry	3
	Guided Elective	3
	Guided Elective	3
	Free Elective	<u>3</u>
	Subtotal	12

Required Courses*		
BIOL 5955	Introduction to Research Methods	
<u>or</u> its equivalent	in Ecology	3
BIOL 4993	Special Topics in Biology I	1-3

*Student must complete at least three credits of the required courses.

Guided Electives**		
BIOL 3146	Economic Botany	3
BIOL 4XXX	Biodiversity Evaluation Seminar***	3
BIOL 4415	Invertebrates Biology	3
BIOL 4416	Invertebrates Biology Laboratory	0
BIOL 4335	Evolution	3
BIOL 4435	Taxonomy of Vascular Plants	3
BIOL 4436	Taxonomy of Vascular Plants Laboratory	0
BIOL 4446	Introduction to Entomology	3
BIOL 4447	Biology of Terrestrial Vertebrates of Puerto Rico	3
BIOL 4448	Biology of Terrestrial Vertebrates of Puerto Rico Lab.	0
BIOL 5007	General Plant Morphology	3
BIOL 5765	Mycology	3

**Student must complete, at least, 15 credits of the required courses and guided electives.

**BACHELOR'S DEGREE IN NATURAL SCIENCES WITH A CONCENTRATION
IN BIOLOGY WITH A SUB-CONCENTRATION IN
BIOTECHNOLOGY
(125 credits)**

First Year

First Semester		Credits
BIOL 3011	General Biology I	4
BIOL 3013	General Biology I Laboratory	0
QUIM 3001	General Chemistry I	4
QUIM 3003	General Chemistry I Laboratory	0
CISO 3121	Introduction to Social Sciences I	3
ESPA 3101	Basic Spanish I	3
MATE 3171	Pre-Calculus I	<u>3</u>
Subtotal		17

Second Semester		Credits
BIOL 3012	General Biology II	4
BIOL 3014	General Biology II Laboratory	0
QUIM 3002	General Chemistry II	4
QUIM 3004	General Chemistry II Laboratory	0
CISO 3122	Introduction to Social Sciences II	3
ESPA 3102	Basic Spanish II	3
MATE 3172	Pre-Calculus II	<u>3</u>
Subtotal		17

Second Year

First Semester		Credits
BIOL 3425	Animal Organismal Biology	4
BIOL 3426	Animal Organismal Biology Laboratory	0
<u>or</u> BIOL 3417	Plant Organismal Biology	4
BIOL 3418	Plant Organismal Biology Laboratory	0
<u>or</u> BIOL 3705	General Microbiology	4
BIOL 3707	General Microbiology Laboratory	0
QUIM 3031	Organic Chemistry I	4
QUIM 3033	Organic Chemistry I Laboratory	<u>0</u>
MATE 3021	Calculus I for Biological Sciences	3
ESPA 3015	Grammar and Composition	3
INGL 3101	Basic English I	3
INGL 3113	Basic English I Laboratory	0
Subtotal		17

Second Semester		Credits
BIOL 3305	Genetics	4
BIOL 3306	Genetics Laboratory	0
QUIM 3032	Organic Chemistry II	4
QUIM 3034	Organic Chemistry II Laboratory	0
MATE 3022	Calculus II for Biological Sciences	3
INGL 3102	Basic English II	3
INGL 3114	Basic English II Laboratory	0
	Free Elective	<u>3</u>
Subtotal		17

Third Year

First Semester		Credits
BIOL 3115	General Ecology	4
BIOL 3116	General Ecology Laboratory	0
FISI 3011	General Physics I	3
FISI 3013	General Physics I Laboratory	1
	Social Sciences Elective	3
	Humanities Elective	3
	Free Elective	<u>3</u>
Subtotal		17

Second Semester		Credits
BIOL	Required Course	3 or 4
BIOL 3909	Biology Seminar	1
FISI 3012	General Physics II	3
FISI 3014	General Physics II Laboratory	1
INGL 4021	Technical Report Writing for Biology	3
	Humanities Elective	<u>3</u>
Subtotal		14 or 15

Fourth Year

First Semester		Credits
BIOL 3010	Cellular and Molecular Biology	3
BIOL 3020	Cellular and Molecular Biology Laboratory	0
BIOL 3108	Undergraduate Research	2
	Guided Elective	3
	Free Elective	<u>3</u>
Subtotal		11

Second Semester		Credits
BIOL 3740	Biometry	3
	Guided Elective	3
	Guided Elective	3
	Free Elective	<u>3</u>
	Subtotal	12
Required Courses*		
BIOL 4895	Experimental Biotechnology	3
BIOL 4993	Special Topics in Biology I	1-3

*Student must complete at least three (3) credits of the required courses. These courses will be offered with a sub concentration emphasis.

Guided Electives**

BIOL 4056	Introduction to Immunology	3
QUIM 4055	Biochemistry	4
BIOL 5395	Molecular Genetics	3
QUIM 3025	Analytical Chemistry	4
QUIM 3026	Analytical Chemistry Laboratory	0
ADEM 3XXX	Business Education in Biology***	3
QUIM 4XXX	Natural Product Chemistry***	3
BIOL 4XXX	Cloned Genes Expression****	3

** Student must complete at least fifteen (15) credits of the required courses and guided electives.

Free Electives - (12 Credits)

**BACHELOR'S DEGREE IN NATURAL SCIENCES WITH A CONCENTRATION
IN BIOLOGY WITH A SUB-CONCENTRATION IN
COASTAL ENVIRONMENT EVALUATION
(125 credits)**

First Year

First Semester		Credits
BIOL 3011	General Biology I	4
BIOL 3013	General Biology I Laboratory	0
QUIM 3001	General Chemistry I	4
QUIM 3003	General Chemistry I Laboratory	0
CISO 3121	Introduction to Social Sciences I	3
ESPA 3101	Basic Spanish I	3
MATE 3171	Pre-Calculus I	<u>3</u>
Subtotal		17

Second Semester		Credits
BIOL 3012	General Biology II	4
BIOL 3014	General Biology II Laboratory	0
QUIM 3002	General Chemistry II	4
QUIM 3004	General Chemistry II Laboratory	0
CISO 3122	Introduction to Social Sciences II	3
ESPA 3102	Basic Spanish II	3
MATE 3172	Pre-Calculus II	<u>3</u>
Subtotal		17

Second Year

First Semester		Credits
BIOL 3425	Animal Organismal Biology	4
BIOL 3426	Animal Organismal Biology Laboratory	0
<u>or</u> BIOL 3417	Plant Organismal Biology	4
BIOL 3418	Plant Organismal Biology Laboratory	0
<u>or</u> BIOL 3705	General Microbiology	4
BIOL 3707	General Microbiology Laboratory	0
QUIM 3031	Organic Chemistry I	4
QUIM 3033	Organic Chemistry I Laboratory	0
MATE 3021	Calculus I for Biological Sciences	3
ESPA 3015	Grammar and Composition	3
INGL 3101	Basic English I	3
INGL 3113	Basic English I Laboratory	<u>0</u>
Subtotal		17

Second Semester

Credits

BIOL 3305	Genetics	4
BIOL 3306	Genetics Laboratory	0
QUIM 3032	Organic Chemistry II	4
QUIM 3034	Organic Chemistry II Laboratory	0
MATE 3022	Calculus II for Biological Sciences	3
INGL 3102	Basic English II	3
INGL 3114	Basic English II Laboratory	0
	Free Elective	<u>3</u>
	Subtotal	17

Third Year

First Semester

Credits

BIOL 3115	General Ecology	4
BIOL 3116	General Ecology Laboratory	0
FISI 3011	General Physics I	3
FISI 3013	General Physics I Laboratory	1
	Social Sciences Elective	3
	Humanities Elective	3
	Free Elective	<u>3</u>
	Subtotal	17

Second Semester

Credits

BIOL	Required Course	3 or 4
BIOL 3909	Biology Seminar	1
FISI 3012	General Physics II	3
FISI 3014	General Physics II Laboratory	1
INGL 4021	Technical Report Writing for Biology	3
	Humanities Elective	<u>3</u>
	Subtotal	14 or 15

Fourth Year

First Semester

Credits

BIOL 3010	Cellular and Molecular Biology	3
BIOL 3020	Cellular and Molecular Biology Laboratory	0
BIOL 3108	Undergraduate Research	2
	Guided Elective	3
	Free Elective	<u>3</u>
	Subtotal	14

Second Semester		Credits
BIOL 3740	Biometry	3
	Guided Elective	3
	Guided Elective	3
	Free Elective	<u>3</u>
Subtotal		12

Required Courses*

BIOL 3117	Introduction to Oceanography	4
BIOL 3118	Introduction to Oceanography Laboratory	0
BIOL 4993	Special Topics in Biology I	1-3

*Student must complete at least three (3) credits of the required courses.

Guided Electives**

BIOL 4607	Marine Ecosystems of Puerto Rico	3
BIOL 4125	Legal Economic and Social Aspect Environment	2
BIOL 4635	Seminar on Marine Resources	2
BIOL 3919	Water Microbiology	3
BIOL 3920	General Microbiology Laboratory	0
BIOL 4415	Invertebrates Biology	3
BIOL 4XXX	Coastal Marine Biogeochemistry***	3
BIOL 4XXX	Bioremediation***	3

** Student must complete at least fifteen (15) credits of the required courses and guided electives.

Free Electives - (12 Credits)

BACHELOR'S DEGREE IN OFFICE SYSTEMS

(This Program is undergoing a curricular revision; therefore, it is subject to changes.)

Mission

The Office System Bachelor's Degree is the only higher education program of the public system of the Southern region of the Island that trains administrative support personnel. It primarily serves students coming from private and public high schools that fulfill the University and Program admission requisites.

Through general education, the Program facilitates and promotes the integral formation of students as well as the acquisition and development of professional and personal competencies required from Office professionals. It also contributes to their ethic, civil, cultural, and social formation.

The Program was created to train highly competent Office professionals that can satisfy the employment market demand and which can contribute to the socio-economic development of Puerto Rico.

Goals

In order to fulfill the Program's Mission, the following goals have been established:

1. To provide students with adequate tools for the development of the necessary skills to listen and think critically.
2. To provide students with adequate tools for the development of their capabilities to communicate effectively in oral as well as in written form, in both Spanish and English.
3. To train students in the processes of self-learning and independent study.
4. To provide students with a holistic education that allows them to competently perform as Office professionals.
5. To make students aware of the importance of technology in an ever changing Office environment framed in the context of a global economy.
6. To contribute to the formation of Office professionals whom exhibit ethical behavior.
7. To contribute to the development of socially responsible Office professionals.

Objectives

The Office System Bachelor's Degree Program has the following objectives:

1. To train students in the use of different computer application programs, such as: word processing, electronic calculation sheets, data banks, and graphics, among others.
2. To train students in document administration processes, such as: specialized register control, data processing, and microfilms and archives.
3. To prepare students to coordinate and utilize information processing resources available at a contemporary Office.
4. To prepare students in the application of the basic principles of Accounting.
5. To develop in students personality traits and qualities that contribute to their success as professionals and citizens.
6. To strengthen students' knowledge of oral as well as written, Spanish and English.
7. To provide an integral education that allows students to perform efficiently in offices of different nature.
8. To enhance the cultural and humanistic heritage and the sense of leadership in students.
9. To contribute to the fulfillment of the community's demand for specialized personnel.
10. To provide general and technical education to students that are interested in becoming incorporated into the working force after completing their Bachelor's degree.

Alumni Profile

The curriculum of the Bachelor's degree in Office Systems is designed to accomplish that the profile of its alumni exhibit the following characteristics:

1. Processes documents in Spanish and English and performs general tasks at the Office.
2. Possesses basic knowledge concerning the use of computers, different application programs, and other Office equipment.
3. Possesses oral and written communication skills in English as well as in Spanish.
4. Possesses the skills to take dictation in both Spanish and English.
5. Possesses the skills to manage and control documents.
6. Has the ability to follow instructions and to work under pressure with a minimum of supervision.
7. Has the capacity to develop and sustain good interpersonal relations in the Office.
8. Makes decisions in his/her areas of responsibility.
9. Has knowledge of Office procedures.
10. Supervises personnel.
11. Takes on responsibilities and control of the Office.
12. Performs functions as an executive assistant.

BACHELOR'S DEGREE PROGRAM IN OFFICE SYSTEMS

STUDY PROGRAM

First Year

First Semester			Crs.
INGL	3101	Basic English I	3
INGL	3113	Basic English I Laboratory	0
ESPA	3101	Basic Spanish I	3
SOFI	3005	Basic Typewriting	3
SOFI	3015	Computer Concepts	3
MATE	3001	Introductory Mathematics I	3
CISO	3121	Introduction to Social Sciences I	<u>3</u>
Subtotal			18

Second Semester

INGL	3102	Basic English II	3
INGL	3114	Basic English II Laboratory	0
ESPA	3102	Basic Spanish II	3
SOFI	3017	Interpersonal Relationships in the Office	3
SOFI	3105	Documents Production I	2
SOFI	3106	Documents Production I Laboratory	0
SOFI	3125	Word Processing	2
SOFI	3126	Word Processing Laboratory	0
CISO	3122	Introduction to Social Sciences II	<u>3</u>
Subtotal			16

Second Year

First Semester			
INCO	3005	Business English I	3
ESCO	3005	Composition Principles & Business Documents I	3
SOFI	3215	Speedwriting in Spanish	5
SOFI	3217	Introduction to Spanish Transcription	
SOFI	3218	Documents Production II	2
SOFI	3219	Documents Production II Laboratory	0
SOFI	3210	Documents Administration	<u>3</u>
Subtotal			16

Second Semester			Crs.
INCO	3006	Business English II	3
ESCO	3006	Composition Principles & Business Documents II	3
SOFI	3315	Speedwriting in English	5
SOFI	3317	Introduction to English Transcription	
SOFI	3327	Spanish Transcription	4
SOFI	3305	Information Processing	2
SOFI	3306	Information Processing Laboratory	<u>0</u>
Subtotal			17

Third Year

First Semester			Crs.
HUMA	3111	Compendium Study Western Culture 1-2	3
INCO	3025	Conversational English	1
SOFI	3328	English Transcription	4
SOFI	4005	Integration of Application Software in Electronic Information	4
		Guided Elective in SOFI Sciences	3
			<u>3</u>
Subtotal			18

Second Semester			Crs.
HUMA	3112	Introduction Study to Western Culture	3
INCO	4055	Advanced Conversational English Sciences	1
			3
SOFI	3355	Administrative Office Procedures	3
SOFI	3357	Elementary Procedures in Accounting	3
SOFI		Guided Elective in SOFI	3
		Guided Elective in Management	<u>3</u>
Subtotal			19

Fourth Year

First Semester			Crs.
PSIC	3005	General Psychology	
PSIC	3116	Industrial Psychology	
SOCI	3285	Social Dynamics	3
SOFI	4038	Administrative Office Management	3
SOFI		Guided Elective in SOFI	3
		Free Elective	3
		Free Elective	<u>3</u>
Subtotal			15

Second Semester			Crs.
		Free Elective	3
		Free Elective	3
INCO	4035	Translation	2
SOFI	4985	Practice Internship	<u>5</u>
Subtotal			13

TOTAL BACHELOR'S CREDITS – 132

++These courses must be approved with a minimum of a “C”.

BACHELOR'S DEGREE IN PSYCHOLOGY AND MENTAL HEALTH

Mission of the Bachelor's Degree in Psychology and Mental Health

This is an innovative Program aimed at the integral and professional development of its students. The alumni of the Bachelor's degree in Psychology and Mental Health will be health care professionals working under the supervision of licensed psychologists or psychiatrists or other specialized human behavior professionals, in a variety of mental health programs. The concentration in Mental Health provides knowledge in Psychology theory, in investigation and experimentation methods, and in the application of Psychology principles in the area of human mental and emotional disorders.

The alumni will be able to perform as counselors at universities, schools, vocational rehabilitation centers, hospitals, and government and private agencies.

The alumni will possess the necessary skills to write the required reports as well as to be able to develop and maintain adequate interpersonal relationships with clients, the work team, and community agencies.

The alumni will possess the technical, theoretical, and emotional preparation to identify situations of crisis and coordinate the necessary referrals. It is expected that the ethical behavior of the alumni in their personal and professional level will be the anticipated according to those established by mental health professions.

This concentration has an interdisciplinary background to permit alumni to continue advanced studies in professions related to human behavior.

Goals of the Bachelor's Degree in Psychology and Mental Health:

The main goal of the Bachelor's program is the preparation of professionals able to perform as technicians in the field of Human Behavior and Mental Health Sciences.

After completing the Bachelor's degree, the psychosocial technician or psychologist assistant will be capable to work in the prevention and conduct modification of individuals that demonstrate being at high risk of falling into dysfunctional behavior. They will work under the supervision of professionals licensed in Human Behavior and Mental Health.

Bachelor's Degree in Psychology and Mental Health Alumni Profile:

It is expected that at the completion of the Bachelor's Degree Program in Arts in Social Sciences with a concentration in Psychology and Mental Health, its alumni will possess:

1. Introductory and general culture knowledge concerning Social Sciences.
2. Introductory and general culture knowledge concerning Psychology.
3. Introductory and general culture knowledge concerning Natural Sciences.
4. Research skills in the Social Sciences in general, and in Psychology in particular.
5. Knowledge and capacity to apply the ethical norms of investigation and professional practices of the Social Sciences in general and of Psychology in particular.
6. Knowledge about the historical, social, and cultural realities of Puerto Rico.
7. Skills in the use of computers.
8. Knowledge and capacity to apply the tools of statistical analysis pertinent to Social Sciences.
9. General knowledge regarding the use and scope of psychometric instruments and concerning the psychological evaluation process.
10. Effective decision making and self management skills in interpersonal relations at the team work interdisciplinary level.
11. Effective oral and written communication skills in Spanish.
12. Effective oral and written communication skills in English.
13. Critical analysis skills.
14. Case conceptualization and management skills gained through practical experiences in working scenarios.
15. Basic skills and general knowledge regarding interview techniques.
16. General knowledge regarding prevention and assistance to some of the aspects of treatment and rehabilitation of clients served by agencies that offer care for specific mental health needs.
17. Investigation, intervention, and follow up case report writing skills.

Employment Opportunities

The alumni of the Bachelor's degree in Psychology and Mental Health will be candidates to be employed at the following service programs offered by the Government of Puerto Rico and private agencies: Mental Health and Drug Abuse Prevention Programs, Social Service Programs, Family Services, Judicial System Programs, Social Security Program (Disability Determination Area), Labor Department (Compensation Determination Area), Juvenile Institutions, and counselors at CREA Rehabilitation Homes, among others.

General Objectives

1. To contribute to the progress of Psychology as a biological and social science through the knowledge integration of Natural and Social Sciences for the study and understanding of human behavior.
2. To foster understanding and respect for human dignity.
3. To contribute to the understanding and solution of the social problems faced by Puerto Rico.
4. To foster tolerance towards human beings with different value standards, social and economic status, and different political and religious beliefs.
5. To foster in students an interest to seek their full and integral development as human beings and professionals.
6. To develop ethical values and social commitment.
7. To develop professional ethics.
8. To appreciate Puerto Rico's cultural heritage.

Specific Objectives

1. To acquire introductory knowledge about Social and Natural Sciences and Humanities.
2. To acquire knowledge regarding investigation designs and methods, statistical analysis, and measurement instruments used in the Psychology field.
3. To know and apply ethical norms in the investigation and practice of Psychology, as established by the Codes of Ethics of the Examining Board of Psychologists of the Commonwealth of Puerto Rico, the Psychology Association of Puerto Rico, and the American Psychological Association.
4. To acquire knowledge in relation to the historical, social, and cultural reality of Puerto Rico.

5. To develop skills in the use of computers and their application to statistical analysis pertinent to the Social Sciences.
6. To develop conversational English skills.
7. To develop analytical and critical thinking skills.
8. To develop information gathering skills using the Internet and other bibliographical resources.
9. To develop decision making skills at the interdisciplinary team level.
10. To develop skills for the conceptualization and management of cases in work scenarios that offer mental health services.
11. To develop investigation skills.
12. To acquire knowledge about interview techniques, social dynamics, interpersonal relations, team work, and case management.
13. To acquire Psychology and Mental Health knowledge in a variety of scenarios such as classrooms, human behavior laboratories, conferences, workshops, and practice centers.
14. To acquire written and oral communication skills for their professional performance.
15. To understand the importance of ethics in the professional practice of Psychology.

STUDY PROGRAM

First Year

First Semester			Credits
CISO	3121	Introduction to Social Sciences I	3
CIBI	3001	Fundamentals of Biology I	3
ESPA	3101	Basic Spanish I	3
INGL	3101	Basic English I	3
INGL	3113	Basic English I Laboratory	0
HUMA	3105	Socio-Juridical Foundation Western Culture	3
MATE	3001	Introductory Mathematics I	3
Subtotal			18

Second Semester			Credits
CISO	3122	Introduction to Social Sciences II	3
CIBI	3002	Fundamentals of Biology II	3
ESPA	3102	Basic Spanish II	3
INGL	3102	Basic English II	3
INGL	3114	Basic English II Laboratory	0
CISO	3225	Social Moral	3
PSIC	3003	Introduction to General Psychology	4
Subtotal			19

Second Year

First Semester			Credits
SOCI	3245	Principles of Sociology	3
CISO	3155	Fundaments of Statistical Reasoning	3
INGL		Guided Elective in English	3
ESPA	3015	Grammar and Composition	3
		Guided Elective	3
		Free Elective	3
Subtotal			18

Second Semester			Credits
PSIC	3006	Social Psychology	3
PSIC	3015	Theories of Personality	3
PSIC	3025	Human Development	3
ESPA		Guided Elective in Spanish	3
INGL	3191	Introduction to Speech Communication	3
		Conversational English	
		Free Elective	3
Subtotal			18

Third Year

First Semester			Credits
PSIC	3016	Psychopathology	3
PSIC	3018	Physiological Psychology	3
SOCI	3265	Research Methods in the Social Sciences	3
SICI	4008	Principles of Electronic Data Processing	4
		Guided Elective	3
Subtotal			16

Second Semester			Credits
PSIC	3019	Clinical and Community Psychology	3
PSIC	4006	Experimental Psychology	4
SICI	4010	Application of Statistical Analysis Through Computers	3
PSIC	4160	Intervention and Interview in Crisis Situations	3
		Free Elective	3
Subtotal			<hr/> 16

Fourth Year

First Semester			Credits
CISO	3227	Seminar: The Use and Abuse of Drugs in Puerto Rico	3
PSIC	3017	Measurement of Personality	3
HIST	3241	History of Puerto Rico I	3
PSIC	4015	Practicum in Social Psychology	3
		Guided Elective	3
Subtotal			<hr/> 15

Second Semester			Credits
PSIC	4097	Practicum in Clinical Psychology and Mental Health	3
HIST	3242	History of Puerto Rico II	3
		Guided Elective	3
		Free Elective	3
Subtotal			<hr/> 12

Concentration Requisites*

Curso		Title	Credits
PSIC	3006	Social Psychology	3
PSIC	3015	Theories of Personality	3
PSIC	3016	Psychopathology	3
PSIC	3017	Measurement of Personality	3
PSIC	3018	Physiological Psychology	3
PSIC	3019	Clinical and Community Psychology	3
PSIC	3025	Human Development	3
PSIC	4006	Experimental Psychology	4
PSIC	4015	Practicum in Social Psychology	3
PSIC	4160	Intervention and Interview in Crisis Situations	3
PSIC	4097	Practicum in Clinical Psychology and Mental Health	3
Subtotal			<hr/> 34

*Students must obtain a grade not lower than a “C” in all concentration courses. Concentration courses with “D” or “F” grades must be repeated.

Guided Electives*
First Semester

Course	Title	Credits
ANTR 3005	Principles of Anthropology	3
CIPO 3011	Principles in Political Science	3
GERO 3005	Gerontology Theory	3
PSIC 3155	Psychology and the Law	3
PSIC 3205	Introduction to Forensic Psychology	3
SOCI 3277	The Rights of Women in Society	3
SOCI 3285	Social Dynamics	3
SOCI 3335	Social Disorganization	3
ECON 3005	Introduction to Economics I	3
PSIC 3305	Couple Family Relations	3

Second Semester

CIPO 3035	Government of Puerto Rico	3
PSIC 3116	Industrial Psychology	3
PSIC 4095	Counseling and Short Term Therapies	3
PSIC 4155	Behavior Analysis	3
PSIC 3315	Conceptual Analysis of Crisis Intervention	3
SOCI 3005	Criminology	3
SOCI 3025	Violence of Sociology	3
SOCI 3275	The Sociology of Deviant Behavior	3

Subtotal 12

*Students will choose four (4) courses. The Department may add new courses which it considers pertinent according to new developments. The course distribution may vary by each academic semester.

FORENSIC PSYCHOLOGY

Mission of the Bachelor's Degree in Forensic Psychology

The Bachelor's degree in Forensic Psychology, specialty which is unique in Puerto Rico, strives to provide students with the opportunity to obtain technical and practical knowledge to be able to practice a profession that will fulfill service needs in the Criminal Justice System and other Rehabilitation and Mental Health Programs.

This is an innovative program aimed at the integral and professional development of students interested in obtaining an academic preparation as Drug addiction prevention technicians, Sociopenal technicians, and Community and Psychosocial technicians. These professionals are trained in essential knowledge necessary for adequate case handling so that they can face social dilemmas and serve as agents of change.

The program's fundamental purpose is the preparation of human behavior professionals that can contribute to the rehabilitation of Correctional and Juvenile Institution inmates. These professionals will also be capable of offering services to Ambulatory clinic patients, to Psychiatric hospitals, to clients of addiction treatment and rehabilitation programs, and to clients of the Family Department Services. They can also work in the prevention stage phase of government agency programs.

The Goal of the Bachelor's Degree in Forensic Psychology

The main goal of the Bachelor's degree is the preparation of professionals that can perform as technicians in the Mental Health field.

After the completion of the Bachelor's degree, these professionals will be prepared to prevent and collaborate in the behavior modification of individuals who demonstrate being at high risk of falling into dysfunctional behavior. These professionals will work under the supervision of psychologists, psychiatrists, and other professionals licensed in the Human Behavior Science field.

Forensic Psychology Alumni Profile

It is expected that after the completion of the Bachelor's Degree Program in Social Sciences Arts with a concentration in Forensic Psychology its alumni will have:

1. Introductory and general culture knowledge concerning the Social Sciences.
2. Introductory and general culture knowledge concerning Psychology.
3. Introductory and general culture knowledge concerning the Natural Sciences.
4. Research skills in the Social Sciences in general and in Psychology in particular.
5. Knowledge and capacity to apply the ethical norms of investigation and professional practices of the Social Sciences in general and of Psychology in particular.
6. Knowledge about the historical, social, and cultural realities of Puerto Rico.
7. Skills in the use of computers.
8. Knowledge and capacity to apply the tools of statistical analysis pertinent to Social Sciences.
9. General knowledge regarding the use and scope of psychometric instruments and concerning the psychological evaluation process.
10. Effective decision making and self management skills in interpersonal relations at the team work interdisciplinary level.
11. Effective oral and written communication skills in Spanish.
12. Effective oral and written communication skills in English.

13. Critical analysis skills.
14. Case conceptualization and management skills gained through practical experiences in working scenarios, such as: Psychosocial treatment centers, Correctional System units, and Court Administration dependencies, among others.
15. Basic skills and general knowledge regarding interview techniques.
16. General knowledge regarding prevention and assistance to some aspects of treatment and rehabilitation of clients served by the Criminal Justice System.
17. Writing skills regarding investigation, progress, and reclassification reports of inmates.

Employment Opportunities

The alumni of the Bachelor's degree in Forensic Psychology may be employed by the following programs offered by the government of the Commonwealth of Puerto Rico and private agencies: Correctional and Rehabilitation System Program, Mental Health and Drug Abuse and Alcoholism Prevention Services, Justice Department Court System, Social Security (Disability Determination Area), the Labor Department (Compensation Determination Area), and Juvenile Institutions, among others.

General Objectives

1. To contribute to the progress of Psychology as a biological and social science through the knowledge integration of Natural and Social Sciences for the study and understanding of human behavior.
2. To foster understanding and respect for human dignity.
4. To contribute to the understanding and solution of the social problems faced by Puerto Rico.
4. To foster tolerance towards human beings with different value standards, social and economic status, and different political and religious beliefs.
5. To foster in students an interest to seek their full and integral development as human beings and professionals.
6. To develop ethical values and social commitment.
7. To develop professional ethics.
9. To appreciate Puerto Rico's cultural heritage.

Specific Objectives

1. To acquire introductory knowledge about Social and Natural Sciences and Humanities.
2. To acquire knowledge regarding investigation designs and methods, statistical analysis, and measurement instruments used in the Psychology field.
3. To know and apply ethical norms in the investigation and practices of Psychology, as established by the Codes of Ethics of the Examining Board of Psychologists of the Commonwealth of Puerto Rico, the Psychology Association of Puerto Rico, and the American Psychological Association.
4. To acquire knowledge in relation to the historical, social, and cultural reality of Puerto Rico.
5. To develop skills in the use of computers and their application to statistical analysis pertinent to the Social Sciences.
6. To develop conversational English skills.
7. To develop analytical and critical thinking skills.
8. To develop information gathering skills using the Internet and other bibliographical resources.
9. To develop decision making skills at the interdisciplinary team level.
10. To develop skills for the conceptualization and management of cases in work scenarios that offer mental health services.
11. To develop investigation skills.
12. To acquire knowledge about interview techniques, social dynamics, interpersonal relations, team work, and case management.
13. To acquire Psychology and Mental Health knowledge in a variety of scenarios such as classrooms, human behavior laboratories, conferences, workshops, and practice centers.
14. To acquire written and oral communication skills for their professional performance.
15. To understand the importance of ethics in the professional practice of Psychology.

STUDY PROGRAM

First Year

First Semester			Credits
CISO	3121	Introduction to Social Sciences I	3
CIBI	3001	Fundamentals of Biology I	3
ESPA	3101	Basic Spanish I	3
INGL	3101	Basic English I	3
INGL	3113	Basic English I Laboratory	0
HUMA	3105	Socio-Juridical Foundation Western Culture	3
MATE	3001	Introductory Mathematics I	3
		Subtotal	18

Second Semester			Credits
CISO	3122	Introduction to Social Sciences II	3
CIBI	3002	Fundamentals of Biology II	3
ESPA	3102	Basic Spanish II	3
INGL	3102	Basic English II	3
INGL	3114	Basic English II Laboratory	0
CISO	3225	Social Moral	3
PSIC	3003	Introduction to General Psychology	4
		Subtotal	19

Second Year

First Semester			Credits
CISO	3155	Fundaments of Statistical Reasoning	3
ESPA	3015	Grammar and Composition	3
INGL		Guided Elective in English	3
PSIC	3205	Introduction to Forensic Psychology	3
SOCI	3245	Principles of Sociology	3
		Free Elective	3
		Subtotal	18

Second Semester			Credits
PSIC	3006	Social Psychology	3
PSIC	3015	Research Methods in the Social Sciences	3
PSIC	3025	Human Development	3
ESPA		Guided Elective	3
INGL	3191	Intro. to Speech Com. Conversation English	3
		Free Elective	3
		Subtotal	18

Third Year

First Semester

			Credits
PSIC	3016	Psychopathology	3
SICI	4008	Principles of Electronic Data Processing	4
SOCI	3265	Research Methods in the Social Sciences	3
JUST	3005	Introduction to the Criminal Justice System	3
		Guided Elective	3
		Subtotal	16

Second Semester

			Credits
PSIC	4006	Experimental Psychology	4
SICI	4010	Application of Statistical Analysis Through Computers	3
PSIC	4160	Intervention and Interview in Crisis Situations	3
		Guided Elective	3
		Free Elective	3
		Subtotal	16

Fourth Year

First Semester

			Credits
CISO	3227	Seminar: The Use and Abuse of Drugs in Puerto Rico	3
HIST	3241	History of Puerto Rico I	3
PSIC	3155	Psychology and the Law	3
		Guided Elective	3
		Free Elective	3
		Subtotal	15

Second Semester

			Credits
HIST	3242	History of Puerto Rico II	3
JUST	3205	Foundation of Rights within Justice System	3
PSIC	4415	Practical to Forensic Psychology	3
		Guided Elective	3
		Subtotal	12

Concentration Requisites*

Course		Title	Credits
JUST	3005	Introduction to the Criminal Justice System	3
JUST	3205	Foundation of Rights within Justice System	3
PSIC	3006	Social Psychology	3
PSIC	3015	Theories of Personality	3
PSIC	3016	Psychopathology	3
PSIC	3025	Human Development	3
PSIC	3155	Psychology and the Law	3
PSIC	3205	Introduction to the Forensic Psychology	3
PSIC	4006	Experimental Psychology	4
PSIC	4160	Intervention and Interview in Crisis Situations	3
PSIC	4415	Practical to Forensic Psychology	3
Subtotal			34

*Students must obtain a grade not lower than a “C” in all concentration courses. Concentration courses with “D” or “F” grades must be repeated.

*Guided Electives

			Credits
First Semester			
CIPO	3011	Principles in Political Science	3
ECON	3005	Introduction to Economics	3
GERO	3005	Gerontology Theory	3
PSIC	3017	Measurement of Personality	3
PSIC	3018	Physiological Psychology	3
PSIC	3305	Couple Family Relations	3
PSIC	4015	Practicum in Social Psychology	3
PSIC	4206	Correctional Psychology	3
SOCI	3277	The Rights of Women in Society	3
SOCI	3285	Social Dynamics	3
SOCI	3335	Social Disorganization	3
Second Semester			
ANTR	3005	Principles of Anthropology	3
CIPO	3035	Government of Puerto Rico	3
PSIC	3019	Clinical and Community Psychology	3
PSIC	3315	Conceptual Analysis of Crisis Intervention	3
PSIC	3116	Industrial Psychology	3
PSIC	4095	Counseling and Short Term Therapies	3

SOCI	3005	Criminology	3
PSIC	4155	Behavior Analysis	3
SOCI	3025	Violence of Sociology	3
SOCI	3275	Sociology of the Community	3
			<hr/>
Subtotal			12

*Students must choose four (4) courses. The Department may add new courses which it considers to be pertinent according to new developments. The course distribution may vary by each academic semester.

BACHELOR'S DEGREE IN ARTS IN ELEMENTARY EDUCATION

(This Program is undergoing a curricular revision; therefore, it is subject to changes.)

Vision

The faculty and support personnel of the Education Department of the University of Puerto Rico in Ponce aspires to develop Education professionals of excellence that can contribute to social transformation through diverse educational scenarios.

Mission

The Education Program of the University of Puerto Rico in Ponce, unique in the University of Puerto Rico southern region System, is based on a socio-humanistic philosophy and is framed in the context of the mission of the System of the University of Puerto Rico as well as the Unit's. Its mission is to prepare future professionals capable of achieving their goals so that they may be leaders that contribute to the social transformation of educational scenarios and the strengthening of our democratic society; being able to learn to learn, to learn to teach, to learn to undertake transformation, and to teach in a dynamic and effective manner, taking into consideration student diversity.

Purpose

The Education Program of the University of Puerto Rico in Ponce strives to develop K-3 and 4-6 professional education leaders that can successfully perform in Puerto Rico's multicultural context as well as internationally.

Goals

The goals of the Education Program of the University of Puerto Rico in Ponce are: to develop in teacher candidates professional and general content knowledge; to develop in teacher candidates the skills and aptitudes for research and evaluation, as well as skills in the use of technology and any other elements that can enhance the teaching/learning process. It is also the Program's goal to make teacher candidates capable of understanding their responsibility and contribution to the formation of individuals and of a democratic society.

The Education Program develops professionals capable of being creative curriculum innovators and of fostering authentic learning environments in which moral, ethical, and aesthetic values are promoted. Equally, it provides teacher candidates with knowledge regarding the nature of children and of diverse cultural backgrounds with the purpose that they may develop experiences applicable to social reality in their complexity.

Objectives

1. To develop Education professionals with mastery of the content of the disciplines in order for them to promote the integration of learning with understanding.
2. To develop in the teacher candidate the pedagogical knowledge that allows him/her to show mastery of the classroom planning process.
3. To establish a student centered learning environment.
4. To develop the candidate's ability to effectively manage the educational environment.
5. To develop professionals that demonstrate ethical, moral, civil, and aesthetic values through their actions as well as collaboration, dialog, team work, the capacity to learn to learn, to learn to teach, and the capacity to undertake action in order to transform educational environments utilizing technology and other approaches.
6. To develop candidates capable of facing new educational challenges and of integrating technology into the teaching/learning process in a creative and innovative manner.
7. To develop in candidates the awareness of the importance of the assessment process for the authentic and effective evaluation of student learning.
8. To train candidates in the management of diverse and complex educational environments.

Alumni Profile

The alumni of the Bachelor's Degree Program in Elementary Education of the University of Puerto Rico in Ponce will possess the following knowledge, skills, and dispositions:

Knowledge and integration of the subject matter content he/she teaches.

Shows ample and profound mastery of the subject matters taught according to the content included in grade level standards. Organizes learning experiences taking into consideration that learning has significance and that application skills are aimed at the construction of knowledge.

Development of reflexive, critical, and creative thinking, and of skills regarding the investigation process.

Shows the capability to process information and construct knowledge through different cognitive operations and representations in diverse levels of complexity, and shows the capacity for research.

Mastery of communication and language skills.

Shows the ability to communicate with propriety and correctness in oral and written form, in both English and Spanish.

Student and learning process knowledge.

Shows knowledge of students' human development and designs classes taking into consideration different learning styles and organizes activities to assist the physical, intellectual, and emotional needs of students as well as their interests and talents.

Organization and handling of the educational environment.

Shows the ability to distribute time and utilize diverse techniques that promote the active participation of students in the teaching/learning process in a democratic and flexible environment; making effective use of different group control and handling strategies.

Effective classroom planning.

Plans his/her classes considering the regulations in effect as well as the knowledge and the nature of the discipline, the students, the community, and of the goals and objectives of the curriculum.

Moral, ethical, and aesthetic consciousness and historic and civic knowledge.

Shows sensibility towards moral values and capacity for sound judgment, deliberation and argumentation, and an ability to act according to them in a coherent, persistent, and autonomous manner, and shows the capacity for the interpretation of the social and cultural reality, extolling the highest civic values within a historical context.

Effective social interaction in a context of collaboration and dialogue with families and the community.

The candidates will demonstrate the capacity to establish collaboration links with families and the community thus contributing to the social, academic, and emotional transformation of children; the candidate will also evidence the capacity to perform in society in a context of collaboration, dialogue, and effective interaction that favors the development of leadership and articulated action for conflict management.

Commitment to professional and personal development, and disposition for self-learning, independent study, and the ability to adapt to change and effectively face challenges.

The candidates reflect upon their educational practice and participate in professional development activities and transfer what they have learned into their classroom implementation. They also show capacity to visualize themselves as agents of initiative by exhibiting an open attitude towards change and new challenges.

Knowledge and effective use of learning and informational technology resources.

Utilizes a diversity of materials and adequate resources for concept development and integrates technology as a teaching tool.

Adequate use of diverse assessment methods for learning and for student learning evaluation.

Shows mastery in the design and use of tests and in the selection and adaptation of a variety of instruments for student diagnose and evaluation, and makes use of the evaluation results to improve the teaching/learning process.

Respect for diversity; and use of diverse strategies and methodologies in the teaching/learning process.

Shows acceptance, knowledge, comprehension, and appreciation of ethnic diversity as well as of socioeconomic and special needs that exist among individuals and different groups so that environments that foster effective learning for all students can be created.

STUDY PROGRAM

First Year

First Semester			Credits
ESPA	3101	Basic Spanish I	3
INGL	3101	Basic English I	3
INGL	3113	Basic English I Laboratory	0
CISO	3121	Introduction to Social Sciences I	3
HUMA	3101	Introduction Western Culture I	3
MATE	3041	Introduction to Mathematics I	3
EDFU	3001	Human Growth and Development I	3
Subtotal			18

Second Semester			Credits
ESPA	3102	Basic Spanish II	3
INGL	3102	Basic English II	3
INGL	3114	Basic English II Laboratory	0
CISO	3122	Introduction to Social Sciences II	3
HUMA	3102	Introduction Western Culture II	3
MATE	3042	Introduction to Mathematics II	3
EDFU	3002	Human Growth and Development II	3
Subtotal			18

Second Year

First Semester			Credits
ESPA	3291	Spanish Grammar I	3
INGL	3021	Oral and Written English I	3
CIIN	1001	Integrated Science I	3
CIIN	1002	Integrated Science I Laboratory	1
EDPE	3001	Linguistic Notions of Content and Methods for the Teaching of Spanish in the Elementary School I	3
EDPE	1005	Teaching Physical Education at Elemental Level	2
EDFU	3007	Social Foundations of Education	3
Subtotal			18

Second Semester			Credits
ESPA	3292	Spanish Grammar II	3
INGL	3022	Oral and Written English II	3
CIIN	1003	Integrated Science II	3
CIIN	1004	Integrated Science II Laboratory	1
EDPE	3002	Linguistic Notions of Content and Methods for the Teaching of Spanish in the Elementary School II	3
EDPE	2005	Teaching Art in Elementary School	2
EDES	4006	Nature and Needs of Exceptional Learners	3
Subtotal			18

Third Year

First Semester			Credits
EDPE	2006	Teaching Music in Elementary School	2
EDPE	3005	The Child and Language	3
EDPE	3008	Assessment in Elementary School	3
EDPE	3018	The Teaching of English as a Second Language	3
HIST	3241	History of Puerto Rico I	3
		Free Elective	3
Subtotal			17

Second Semester			Credits
EDES	3006	Diagnosis/Correction Deficiencies Reading/Writing	3
EDPE	3006	Teaching of Social Studies in the Elementary School	3
EDPE	3116	Teaching Sciences in Elementary School	3
TEED	1005	Audio-Visual Workshop	3
HIST	3242	History of Puerto Rico II	3
		Free Elective	3
Subtotal			18

Fourth Year

First Semester			Credits
EDPE	2008	Curriculum and Teaching in Elementary School	3
EDPE	3065	Pedagogic Innovations	2
EDPE	3115	Teaching Mathematics in Elementary School	3
EDES	3009	Classroom Management*	3
		Free Elective	3
		Free Elective	3
Subtotal			17

Second Semester

EDPE	2007	Educational Practice	6
EDES	3007	Physical Education Students Special Needs	3
EDFU	4019	Philosophical Foundations of Education	3
Subtotal			12

TOTAL BACHELOR'S CREDITS: 136

BACHELOR'S IN ATHLETIC THERAPY

This Program is designed to develop integral and professional individuals interested in obtaining academic training aimed at the prevention, handling, and treatment of athletic injuries that take place during athletic training or during active participation in sports. The Program's fundamental purpose is to train Health professionals that can contribute to the highest social, psychological, and physical development of and individual's health.

The alumni of the Bachelor's Degree in Athletic Therapy are Health professionals that will form an integral part of an Athletic and Sports health program. The role of an Athletic therapist consists in the implementation of Programs aimed at the prevention, handling, treatment, and rehabilitation of athletic injuries as established by a Sports doctor. The Athletic therapist will possess basic knowledge in Science as well as in Anatomy, Exercise Physiology, Sports Psychology, Sports Nutrition, Athletic Taping and Bandaging, Physical Training, Measurement and Evaluation in Sports, Pathophysiology, First Aid, Sports Training, and in the administration of Sport's related work programs. In addition to these skills, the Athletic therapist will serve as a link between the athletes and the technical personnel, the Health team, and the athlete's relatives.

The functions of the Athletic therapist include the evaluation of physical condition; the counseling and treatment of professional and amateur athletes in order to maintain physical efficiency when participating in athletic competitions; the prescription of routine and corrective exercises for muscle strengthening; to make general recommendations regarding diet in order to promote and maintain health and prevent that athletes become overweight; to administer whole body massage or to specific areas of the athlete's body to reduce pain and to heal strained muscles and bruises; to offer First Aid treatment to athletes such as: artificial respiration, cleaning and dressing of wounds, application of heat and cold to promote healing, to call or refer athletes to a doctor when necessary, to bandage athlete's ankles, fingers, and wrists with synthetic skin, protective gauze, and adhesive tape to provide support to muscles and ligaments; to treat minor chronic injuries and related problems in order to maintain high athlete performance (according to the "Dictionary of Occupational Titles"), among others.

BACHELOR'S IN ATHLETIC THERAPY

First Year

First Semester			Credits
INGL	3101	Basic English I	3
INGL	3113	Basic English I Laboratory	0
ESPA	3101	Basic Spanish I	3
BIOL	3011	General Biology I	4
BIOL	3013	General Biology I Laboratory	0
CISO	3121	Introduction to Social Sciences I	3
TATL	3210	Seminar on Athletic Therapy	3
Subtotal			16

Second Semester			Credits
INGL	3102	Basic English II	3
INGL	3114	Basic English II Laboratory	0
ESPA	3102	Basic Spanish II	3
BIOL	3012	General Biology II	4
BIOL	3014	General Biology II Laboratory	0
CISO	3122	Introduction to Social Sciences II	3
TATL	3225	General Concepts of Community Health	3
TATL	3226	General Concepts of Community Health Laboratory	0
Subtotal			16

Second Year

First Semester			Credits
MATE	3001	Introductory Mathematics I	3
TATL	3211	Introduction to Sports I - Sports in Puerto Rico	3
BIOL	1011	Human Anatomy and Physiology I	4
BIOL	1012	Human Anatomy and Physiology I Laboratory	0
HUMA	3101	Introduction Western Culture I	3
INGL	3201	English Composition and Reading I	3
Subtotal			16

Second Semester			Credits
BIOL	1013	Human Anatomy and Physiology II	4
BIOL	1014	Human Anatomy and Physiology II Laboratory	0
TATL	3212	Introduction to Sports II - World Sports	3
TATL	3235	First Aid in Sports	3
HUMA	3102	Introduction Western Culture II	3
INGL	3202	English Composition and Reading II	3
Subtotal			16

Third Year

First Semester			Credits
TATL	4001	Athletic Injuries I	4
TATL	4002	Athletic Injuries I Laboratory	0
TFOC	1005	Functional Anatomy	3
TFOC	1008	Functional Anatomy Laboratory	0
TATL	4025	Basic Pathophysiology	4
TATL	4027	Basic Concepts of the Physiology of Exercise	3
TATL	4028	Basic Concepts of the Physiology of Exercise Laboratory	0
PSIC	3005	General Psychology	3
Subtotal			17
Second Semester			Credits
TATL	4003	Athletic Injuries II	4
TATL	4004	Athletic Injuries II Laboratory	0
TATL	4035	Measurement and Evaluation in Sports	4
TATL	4036	Measurement and Evaluation in Sports Laboratory	0
TATL	4065	Introduction to Methodology Sports Training	3
TATL	4101	Clinical Practice I	4
		Free Elective	3
Subtotal			18
Summer			
TATL	4102	Clinical Practice II	4

Fourth Year

First Semester			Credits
MATE	3015	Elementary Statistics	3
TATL	4115	Psychology Exercises Sports	3
TATL	4125	Nutrition in Sports	3
TATL	4201	Clinical Practice III	4
		Free Elective	3
Subtotal			16
Second Semester			Credits
TATL	4135	Sports Health for Special Population	3
SOCI	3265	Research Methods in the Social Sciences	3
TATL	4202	Clinical Practice IV	4
		Free Elective	3
		Free Elective	3
Subtotal			16

TOTAL BACHELOR'S CREDITS – 135



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SERVICE DEPARTMENTS

SPANISH DEPARTMENT

Mission

The Spanish Department of the University of Puerto Rico in Ponce is defined as a service department which offers undergraduate courses and is aimed at satisfying the needs of those Departments that offer terminal or transfer degrees programs.

Through its departmental function, it aspires to impart students with literary-linguistic knowledge for the search of truth and the appreciation of ethical and humanistic values as well as to promote research, artistic creation, and professional development of its faculty and non faculty personnel.

Goals

1. To instruct students in the development of basic language art skills to foster critical thinking and effective communication.
2. To offer literary-linguistic educational experiences which contribute to the continuous cognitive and affective development of the student's community.
3. To provide students with the necessary mechanisms for guided research and independent study.
4. To cultivate aesthetic sensibility through the appreciation and high regard of literary art.
5. To stimulate literary creation.
6. To evaluate, revise, and actualize academic offerings in order to align them with the professional and academic needs of the university community.
7. To promote research and artistic creation as an integral function of the faculty.
8. To facilitate the faculty and support personnel with professional development opportunities
9. To effectively integrate technology in the teaching/learning process for the development of oral and written communication skills.

Objetives

1. To motivate students to assume a reflexive and critical attitude that promotes effective communication.
2. To provide students with the opportunity to read, analyze, and value texts representative of diverse literary genres that permit them distinguish and appreciate their formal and semantic aspects.
3. To familiarize students with diverse literary creation genres so they may distinguish the discourse or expressive manifestation employed.
4. To provide students with experiences that make them capable of ordering and formulating thought in a logical, clear, and precise manner.
5. To offer students with the opportunity to present oral and written research work regarding assigned or freely selected themes.
6. To develop in students interest in reading Hispanic literary texts as means of accomplishing the cultivation of their aesthetic, ethical, and cultural sensibility.
7. To offer activities such as: workshops, gatherings, and literary colloquiums, among others,

- and to promote student organizations that foster interest for literary creation so they may serve as forums for individual and collective expression and manifestation.
8. To organize integrated departmental faculty working teams that can evaluate, revise, and actualize academic offerings according to existing academic and professional trends or needs.
 9. To facilitate all departmental faculty personnel with the opportunity to create, document, and investigate themes that can expand and amplify their educational performance.
 10. To promote among the departmental faculty and non faculty personnel the attendance to seminars, workshops, courses, conferences, and formal studies, among others, as means of professional enrichment and improvement.

ENGLISH DEPARTMENT

The English Department is a service Department whose function is to provide English courses included in different Academic Program offers of the University of Puerto Rico in Ponce.

The priority of its objectives is to develop in students English language basic skills, and to develop conversational English skills and to make students aware of the need of the mastery of the English language as part of their professional and personal development, and stimulate the development of critical thinking and incline students towards reading texts in English so that they may reflect upon culture, values, and quality of life.

MILITARY SCIENCES

This Program was originated at the University of Puerto Rico due to an amendment of the June 3, 1996 National Act, through which the offering of an Army and National Guard Military Officer Training Program was established in University Units and Campuses throughout the nation.

In the academic year 1973-74, the Military Sciences Program began to be offered at the UPR Ponce Unit. The Program is ascribed to the University of Puerto Rico, Mayagüez Campus.

The Military Sciences Program (ARMY ROTC) is design to expand the educational and learning experience of university students. Its courses help prepare students to become productive leaders in society. Its principal objectives are to develop in students leadership, administrative, and management skills. Students are also instructed in skills, such as: motivation, organization, working with large and complex tasks, diplomacy, team work, ability to solve problems under stress, and effective communication. These skills are necessary for the business and civil world. Other Program objectives include the understanding of military principles and concepts; a better sense of personal integrity, honor, respect, and responsibility as well as to value the appreciation of national security. The Military Sciences Program (ARMY ROTC) continues to be a source of the best military officers of the active Army, Reserve, and National Guard.

Under the two year Program, students are required to attend two summer camps.

The basic courses are of a totally voluntary nature for males as well as females that are physically and mentally capable. Students must satisfactorily approve the first two years in order to be eligible to take advanced courses. These are voluntary as well, but of a more selective nature. The ROTC Program provides books, uniforms, shoes, and any other kind of equipment necessary for the basic and advanced courses. It also provides students with free English courses in which reading, writing, comprehension, and conversation skills are taught. Students are provided with books, materials, and laboratory facilities. This course constitutes a great advantage to qualify students to be at a competitive level in the professional world.

Students enrolled in the advanced program receive a \$200 monthly remuneration during the 10 month academic year. Also, students attending the advanced summer camp receive approximately \$600 while undergoing training.

Those students applying for admission to the (Superior Division) advanced courses will undergo a selection and approval process carried out by the Military Sciences Professor (MSP).

Program Grants:

Through the “ROTC Vitalization Act of 1964 (PL88-647)”, the ROTC Department offers grants varying from 1 to 4 years to outstanding students that are interested in continuing with the Program. The grants include tuition, books, laboratory quotas, and a \$200 monthly remuneration during the academic ten months.

Organizations:

Students have the opportunity to belong to the following organizations which allow them to enhance their leadership and administrative knowledge:

Association of the United States Army (A.U.S.A.)
 Pershing Rifle Society
 Ranger Challenge



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CONTINUING EDUCATION
AND PROFESSIONAL
STUDIES DIVISION

CONTINUING EDUCATION AND PROFESSIONAL STUDIES DIVISION (CEPSD)

Vision

The Continuing Education and Professional Studies Division of the University of Puerto Rico, represented in all eleven Units of the UPR System, is a vehicle through which the University maintains close associations with its alumni; accomplishing its mission by fulfilling the higher education needs of the communities of Puerto Rico; and its compromise with the continuous search of new ways to respond with agility and creativity to present and future challenges and opportunities. This synergetic relation is materialized through an innovative, pertinent, ample, dynamic, and flexible academic offer of excellence as well as optimal quality services that foster the professional and personal development of non-traditional students. Thus, in a globalization era with a knowledge based economy, the University of Puerto Rico reaffirms its leadership in the Continuing Education and Professional Studies field, and as a competitive educational alternative for individuals within and beyond the geographical barriers of the Island.

Mission

The Continuing Education and Professional Studies Division of each Institutional Unit of the University of Puerto Rico reaffirms in its shared mission to provide credit as well as non-credit, innovative academic programs and activities of excellence aimed at the facilitation of learning throughout life. Each CEPSD makes possible, guarantees, and perpetuates the service mission of the University of Puerto Rico and its insertion into the trend of the globalization of education. Each also contributes to the socio-economic and cultural development of the Island, promptly and efficiently assisting the immediate needs of the regions, communities, and sectors of Puerto Rico that each Division serves.

Objetives

1. To promote opportunities for the development of skills and knowledge necessary to keep oneself updated concerning professional and technological changes.
2. To promote in the community the importance of Education throughout ones life span.
3. To identify the needs of non-traditional students and the appropriate means to offer them specialized educational services.
4. To reach out to the community and facilitate its participation in the development and implementation of educational activities that respond to its particular needs and expectations.
5. To offer different and varied educational opportunities to develop the knowledge of individuals beyond the limits of their own specialty.

6. To offer professional improvement opportunities to the university community.

PROGRAMS OFFERED THROUGH THE DIVISION

1. Short Courses Program

This Program consists of non-credit courses and seminars aimed at professional, occupational, and personal improvement which allow learners to actualize their knowledge with the purpose of maintaining and expanding the necessary competencies in their specialty areas as well as to employ their leisure time in other areas of interest.

2. Special Programs

These Programs are denominated “Special” because they are coordinated and financed through external funds. Proposals submitted to different public and private agencies that so request it are channeled through these Programs.

3. Services to Public Agencies and Industry

Training programs are developed according to the particular needs of organizations, companies, or government agencies. These can be offered at the facilities of the agency or industry concerned, or can be offered at the Institution.

4. Continuing Education Units (CEU)

It is the credential that certifies participation during a 10 hour contact period in a non-credit educational experience, organized under the sponsorship of the Continuing Education and Professional Studies Division (CEPSD). The Division sponsors activities with continuing education units for those associations and institutions that so request it. In such a case, a curricular design of the activity must be presented as well as the resumes of the resources offering the activity

UNIVERSITY NIGHT SCHOOL PROGRAM

The University Night School Program is ascribed to the Continuing Education and Professional Studies Division (CEPSD) and offers the community in general an academic credit earning, Professional Improvement Program during evenings and Saturdays.

It offers graduates of university bachelor’s degree programs or Higher Education private or public institutions, which are accredited by the Council on Higher Education, with the opportunity to take courses leading to obtaining a Teacher Certification which is granted by the Department of Education of the Commonwealth of Puerto Rico.

Individuals interested may take courses in the following areas:

- Pre-School Education
- English—Elementary Level
- Business Education
- Computer Teacher
- Physical Education—Elementary Level
- Education—Elementary Level K-3
- Education—Elementary Level 4-6
- Vocational Education Teacher
- Health (includes Anatomy and Human Physiology courses)
- Elective Courses in Special Education
- Secondary School Teacher*

The Night School program also offers an Office System Program for students with a bachelor's degree in Secretarial Sciences.

*According to the Department of Education, Secondary School subject matters which have been approved as concentrations or specialties will be issued for teaching: Spanish, Foreign Languages, English, Social Studies, History, Biology, Physics, Chemistry, General Science, Environmental Sciences, Earth Sciences, Mathematics, Physical Education, Health, and in each of the Fine Arts Specialties: Visual Arts, General Instrumental Music, General Vocal Music, Dance, Body Expression and Movement, Theater, and Ballet. (The certifications in Fine Arts and Health are granted without indicating its level. They will be valid for the Elementary level as well as the Secondary level).

Admission Procedures

1. An interview must be requested with the University Night School coordinator or person in charge.
2. Submit a readmission or transfer application to the University Night School Office and make the corresponding payment.
 - a) Readmission – any applicant which has previously coursed studies within the University of Puerto Rico System.
 - b) Transfer – any applicant that has coursed studies in private higher education Universities or Institutions accredited by the Council on Higher Education.

The payment for the admission application to the Program can be made in cash, money order, ATM, or credit card, at the Bursar's Office.

3. Readmission cases must request an official credit transcript from the University they obtained their bachelor's degree. Transfer cases must request an official credit transcript and a Clearing Certificate which they must make available to the Deanship of Student Affairs Office of the University at which they completed their bachelor's degree.

These documents must be sent to the following address:

University of Puerto Rico in Ponce
University Night School Program
P.O. Box 7186
Ponce, PR 00732

The Program application forms and the classification sheet must be submitted to the University Night School Office.

4. Applicants accepted to the Program must complete the medical insurance forms in order to process registration, which will be sent with the admission letter.

Interested applicants must fulfill all admission requisites established by the University of Puerto Rico.



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OTHER PROGRAMS

HONOR STUDY PROGRAM

The Honor Study Program (HSP) of the University of Puerto Rico in Ponce is an Academic Program which enriches the student's academic experience within an interdisciplinary framework. The HPS allows the development of leadership capabilities, fosters social responsibility, and stimulates independent study as well as collaborative endeavor. These goals are accomplished through medullar honor section courses through which Honor Study Program students engage in workshops, intensive seminars, and interdisciplinary courses, as well as participation in the Steering committee through the effort of the Student Council Representative and in co-curricular activities.

The participants of the Honor Study Program courses undertake studies of greater depth, autonomy, and responsibility than in regular courses; therefore, they develop a greater compromise with their studies, as well as the development of critical analysis, self confidence, critical thinking, team work, and leadership.

Benefits for Students active in the HSP Program:

Honor Study Program students benefit by receiving special academic counseling which meets their unique abilities, needs, and skills, as well as access to non-traditional courses, to restricted library material, to individualized academic counseling, to first choice course selection and registration, and to Internet computer access for the completion of course related monographies and investigation reports, as well as participation in symposiums, and scientific conferences, among others; allowing them to acquire the skills to write and submit essays as well as scientific and literary creation articles for publication in College and Medical Science journals, among others.

Every year, acknowledgement is rendered to the most outstanding Honor Study Program students during the Honor Student Assembly. Students that fulfill all the Honor Study Program requisites will be bestowed with the distinctive red gown of the Program to be displayed as part of their academic graduation attire.

Other benefits of the HSP are:

- A. HSP students have at their disposition a meeting room located at the HSP Office which they may use for academic as well as social meeting purposes.
- B. HSP students have the same Library benefits as the faculty in terms of the time they may borrow a book for.
- C. HSP students can take up to fifteen (15) additional elective credits besides their required study course credit load, which are paid for by their grant (Certification Number 27, 2003-2004).
- D. Access to personal counseling and group or individual career counseling.
- E. Orientation regarding Student exchange opportunities, Summer activities, Special grants, and other academic activities.

- F. Up to 20 free photocopies a month, with one rollover month, office supplies such as: transparencies, folders, paper, among others, use of a laptop and projector for presentations, and wireless Internet service, among others.
- G. Participation in the evaluation of all medullar courses taken in honor sections.
- H. Participation in the selection of new enrollment Honor Study Program students.
- I. Participation in educational trips and conventions with partial payment for expenses.
- J. A 5% discount on any book purchase at the Institution's book store.
- K. Students will receive, after fulfilling the requisites, a certificate that officially states that they completed all Program requisites and their credit transcripts will show they are HSP alumni.
- L. During the first year of studies, classes consist of small groups oriented towards the discussion of themes of their particular interest.

ADMISSION REQUISITES TO THE HONOR STUDY PROGRAM

Admission to the Program is by invitation of the Steering Committee and/or the student's request.

1. For first year students, the admission index must be between 5 and 10 percent higher than the Application General Index (AGI) of students admitted during the previous academic year, and must not be lower than 315. The student must have a high school GPA between 3.70 and 4.00, and also have two of the following scores in the results of the college entrance examination, 650 or more in the Mathematics aptitude test, and 580 or more in both the English and Spanish aptitude test sections.
2. To be eligible, students must be enrolled in a Bachelor's degree program, be it to be completed at the UPR in Ponce Unit or at some other campus of the System.
3. Full time students with GPAs between 3.50 and 4.00 may apply to the Program if they fulfill the admission requisites for new enrollment students, without taking into consideration their AGI.
4. All students must fill out a Program admission application.
5. Students must provide at least one letter of recommendation from a University professor, or two teachers from the high school the students graduated from.
6. Students must undergo an interview process with the Program's Director, members of the Steering Committee, and students of the HSP.

CERTIFICATE REQUISITES

It is expected that besides an outstanding academic record, students show excellence through: their interest in participating in the HSP activities, their compromise to approve their courses with first-rate grades, sustain a GPA equal or higher than 3.33/4.00, as well as to show leadership and self confidence.

- ❖ To take three PREH 4990 Courses: Interdisciplinary Seminars.
- ❖ To undertake: a) an original investigation in their study area, and b) a 30 hour community service activity, as part of the requisite course: *Social Community Labor*.

- ❖ To apply to a Semester or Summer Investigation Program such as the: Hispanic Association of Colleges & Universities (HACU) or Case Western University, among others.
- ❖ To complete a portfolio that includes all curricular and extra-curricular activities which will be submitted during the last semester of studies.

INTERDISCIPLINARY COURSE PROGRAM

Code	Section		Credits
	A11	Assistive Technology Applied to Physically Handicapped People	3
PREH 4990	A01	Astronomy	1
	F01	Basic Concepts of Photography, Part I	1
	F02	Basic Concepts of Photography, Part II	1
	D01	Personal Defense, Part I	1
	D02	Personal Defense, Part II	1
	E01	English Media Lexicon	1
	H01	Socio-Political History of Puerto Rico	1
	F01	Pharmaceutical Industry Internship	3
	T01	Introduction to Italian, Part I	3
	T02	Introduction to Italian, Part II	3
	L01	Social Community Labor	3
	S01	Sign Language, Part I	3
	S02	Sign Language, Part II	3
	T01	Macro-Anatomy	3
	P01	Presentation of Written Reports	1
	W01	Technical Report Writing	1

COURSE DESCRIPTION

PREH 4990: ASSISTIVE TECHNOLOGY APPLIED TO PHYSICALLY HANDICAPPED PEOPLE. 3 credits

This course is designed to familiarize teachers with the assistive technology field for physically handicapped people. It is aimed at developing general knowledge regarding assistive technology. Students acquire the necessary basics knowledge to visualize assistive technology as the process which facilitates physically handicapped people the opportunity for successful and independent participation in diverse social contexts (school, home, work place, and community).

PREH 4990: ASTRONOMY. 1 credit

The Solar System will be studied in detail and within it, the terrestrial and jovian planets, their composition, their moons, and their scientific importance; as well as the Oort Cloud, the Kuiper Belt as comet generating zones, and the H-R Diagram for the evolution and death of planetary and supernova stars, starting from the Milky Way, the concepts of galactic

classification, universe matter density, and diverse theories of the formation of the universe, in particular: The Big Bang, The Stationary State, and probable geometry of its construction will be analyzed. The possibilities of life in the Cosmos and Drake's Education will also be discussed.

PRHS 4990: BASIC CONCEPTS OF PHOTOGRAPHY, PART I. 1 credit

Basic Photography I is a theoretical and practical course structured for the easy understanding and handling of photography techniques and equipment. Aspects such as: light as primary source of photography, camera commands, film and exposure timing, framing, illumination, and composition will be discussed. The emphasis through the course is on photography as a useful tool for educational, investigation, and artistic expression purposes.

PRHS 4990: BASIC CONCEPTS OF PHOTOGRAPHY, PART II. 1 credit

The Basic Photography II is aimed at putting into practice theoretical concepts learned in the first part of the course. Emphasis will be given to the concept of "studied photography" in which students will put into action their technical and visual sharpness to create a photographic image. Students will also be introduced to the handling of computer programs used to enhance and increase the quality of photographs.

PRHS 4990: PERSONAL DEFENSE, PART I. 1 credit

Through this workshop, students develop mental and physical abilities to prevent and evade dangerous situations. They are taught how think systematically and how to evaluate critical situations in order to anticipate and counteract the moves of an aggressor, thus remarkably improving students' security, self-esteem, and to maintain an emotional balance. Students will also acquire confidence regarding their body by getting to know the virtues and capacities of its system and constituents. Students also perform skill practice activities to develop good physical condition, good defensive movements and attack techniques, combat positions and displacement movements, as well as breathing, relaxation, and concentration exercises

PRHS 4990: PERSONAL DEFENSE, PART II. 1 credit

Continuation of Personal Defense Part I.

PRHS 4990: ENGLISH MEDIA LEXICON. 1 credit

This course is designed to supply students with the capability of identifying English lexicon frequently used in news and media printed sources and channels, and to learn to use it in original discourses. The course is developed through the "Blackboard" platform and Internet published newspapers. The vocabulary is presented in context through the reading of articles concerning contemporary events, and emphasizing critical thinking skills.

PRHS 4990: SOCIO-POLITICAL HISTORY OF PR. 1 credit

Through dialogue and investigation, this course explores the most relevant aspects of the evolution of the political organization of Puerto Rico, in the context of the social changes that have impacted the Island from the pre-Hispanic period to the present.

PREH 4990: PHARMACEUTICAL INDUSTRY INTERNSHIP. 3 credits

Students are exposed to the interview process and application requisites utilized by the Pharmaceutical industry when recruiting employees, especially in the “Quality Control” area. Students also develop problem solving skills through the application of the scientific method, and by contrasting working area scenarios or environments previously discussed such as biomedicine investigation laboratories, clinical laboratories, and regulating agency field work, with the industry place in which the student is completing its internship. Students also increase their experiences through their involvement in activities directly related to the industry they are engaged with, such as handling of equipment, instrumentation, and processes which can help students develop industry required skills.

PRHS 4990: INTRODUCTION TO ITALIAN, PART I. 3 credits

The course comprises the study of some basic Italian grammar notions which are developed through the frequent use of the Italian language in order to familiarize students with the proper diction, and help them to begin acquiring the skills to express simple phrases in Italian. Spanish is used at the beginning of the course during the explanation of phonetic rules, and during the course, to clarify any point that otherwise would remain unclear and would make the learning process difficult. A great deal of importance is given not only to pronunciation but above all, to oral expression and the composition of written short sentences.

PRHS 4990: INTRODUCTION TO ITALIAN, PART II. 3 credits

Continuation to Introduction to Italian Part I.

PRHS 4990: SOCIAL COMMUNITY LABOR. 3 credits

The students have the opportunity to become familiar with concepts such as: community, types of communities, community based organizations, faith based organizations, and volunteer organizations. Themes such as poverty, power distribution, social and economical inequality and their relation to globalization and privatization are discussed. The community is studied as a social organization in which citizens participate and have the capacity to make decisions and negotiate. The empowering of the members of the community is fostered through participation strategies and the design and execution of a working plan, as well as a community action evaluation. Although the course fosters theoretical training, its objective is that students complete a 30 hour voluntary service work experience in the community or non profit organization chosen.

PRHS 4990: SIGN LANGUAGE, PART I. 3 credits

The basic goal of the course is to prepare and guide students in an excellent acquisition of all the aspects (physical, social, and mental) of sign language from a deaf person’s point of view, as well as from a hearing person’s point of view. Students are expected to acquire sign language with an open mind and to be receptive and expressive, and to acquire knowledge and to put it into practice in order to develop sensibility, and to enhance the interaction with the deaf

community. They are also expected to exhibit good disposition and responsibility, and above all to be serious and respectful towards deaf people.

PRHS 4990: SIGN LANGUAGE, PART II. 3 credits

The basic goal of the course is to prepare and guide students in an excellent acquisition of all the aspects (physical, social, and mental) of sign language from a deaf person's point of view as well as from a hearing person's point of view. Students are expected to acquire sign language with an open mind and to be receptive and expressive, and to acquire knowledge and to put it into practice in order to develop sensibility, and to enhance the interaction with the deaf community. They are also expected to exhibit good disposition and responsibility, and above all to be serious and respectful towards deaf people.

PRHS 4990: MACRO-ANATOMY. 3 credits

The course comprises an intensive study of the human body structures and of the relation between its parts. It includes macroscopic dissection techniques and the discussion of anatomy principles that help identify and describe the gross human body structures, bones, muscles, articulations, blood vessels, lymphatic vessels, and nerves; and their functional relations.

PRHS 4990: PRESENTATION OF WRITTEN REPORTS. 1 credit

This course presents the basic concepts concerning the presentation of written reports, including the essential parts of a report and the rules of style and format accepted for the preparation of reports and research papers. Students are also introduced to some proofreading techniques, and emphasis is given to the development of critical thinking in report writing.

PRHS 4990: TECHNICAL REPORT WRITING. 1 credit

This course is designed for Natural Sciences and Engineering students that have the need to learn or enhance their skills in the elaboration and writing of technical documents.

INTERNATIONAL STUDY PROGRAM AND STUDENT EXCHANGE

Mission

To enrich and contribute to the integral academic and cultural development of students through International Study and Student Exchange activities with University Institutions, so it benefits the students as well as society.

Vision

To promote International Study and Student Exchange programs in order to enrich the teaching/learning process as well as cultural development.

Objectives

The objectives of this Program are:

To promote the cultural and academic development of students.

To offer students who do not have the financial resources with the opportunity to participate in an academic-cultural experience in a foreign country.

To establish alliances with other educational university centers so that the academic-cultural exchange as well as the interest in investigation of the diverse academic disciplines of the participating bachelor's degree programs is enhanced and further developed.

Profile of participating students:

To be interested in completing studies in a foreign country University.

To be, at least, a classified 3rd year student and to have accumulated more that 65 credits.

To be classified as a student in one of the Bachelor's Degree Programs of the Institution.

To have a minimum grade point average of 2.50 (in a 4.00 scale) and a minimum grade point average of 2.75 (in a 4.00 scale) in their concentration courses.

To undergo an interview process with the Committee members and a professor who is a member of the faculty of the student's concentration and with whom the student has not yet taken classes.

To have satisfactory academic progress at the time the student submits the application to the Program [if the student is to use the financial resources contained in the Free Application for Federal Student Aid (FAFSA)].

The Program offers a curricular sequence. Bachelor's degree students participating in the curricular sequence must comply with Certification Number 44, 2005-2006, which establishes the guideline that students must request a curricular sequence at their respective Academic Departments before they accumulate ninety (90) credits.

Courses

As a requisite before their trip, students must take the **HUMA 3006** course: Discussion of Travel Study, which belongs to the courses offered at the UPR-Ponce. The course is worth three credits and meets for a total of forty five (45) contact hours. The course consist of the following units: a) economy, physical, and political geography; b) history, art, and culture; c) social

organization and facts about folklore. This multidisciplinary focus course will help students better appreciate their traveling experience.

Besides the **HUMA 3006** course, students will earn three (3) credits for the HUMA-3005, Travel and Study course after the satisfactory completion of the study period at the selected country. Students will also receive a certificate issued by the International Studies and Student Exchange Program Office.

The nine (9) credits that complete the curricular sequence will be constituted by elective courses taken at the foreign institution. See the following table:

Curricular Sequence Table		
Course Title and Code	Number of credits	Observations
Discussion of Travel Study (HUMA 3006)	3	requisite course
Travel and Study (HUMA 3005)	3	requisite course
Elective courses	9	
Total credits	15	

CORDOVA CONGRESSIONAL INTERNSHIP PROGRAM

The 1993 Law Number 59 created the Cordova Congressional Internship Program through which university students of different institutions have the opportunity of working and studying for one semester at the Congress of the United States in Washington, D.C.

Any full-time student attending an accredited University in Puerto Rico, who has a grade point average of 2.75 or more and has completed a minimum of sixty (60) credits by the time the internship begins, and who is not a graduation candidate during that semester, is eligible.

The students selected will be placed at a Senator or Congress Representative's Office or at one of its ascribed Offices, such as: the Congress Library, the Office of Sciences and Technology, and the Offices of Congressional Committees and Subcommittees, to work during the semester they were chosen for. They will also participate in an Academic Program sponsored by The Washington Center, and will receive a stipend to help them cover their food and basic personal expenses.

Participants will earn twelve (12) academic credits from the University of Puerto Rico for their involvement in the Cordova Program.

In order to apply students must:

1. Complete the Program's application.
2. Include two letters of recommendation.
3. Write an essay.
4. Send an official credit transcript from the Institution.
5. Submit the required documents (original birth certificate, original negative criminal record certificate, and two 2x2 photos).
6. Submit a resume.
7. Have oral and written mastery of the English language.
8. Describe in detail the types of activities that the student would like to participate in during the internship.
9. Present a letter of recommendation from the student's Academic counselor or an Academic official indicating approximately the amount of academic credits that the Institution will grant the student for his/her participation in the Cordova Program.

STUDY PROGRAM

			Credits
INTD	4000	Congressional Internship—Cordova Program	9
INTD	4010	Academic Seminar—Washington Center	3



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COURSES DESCRIPTIONS

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BUSINESS ADMINISTRATION

ADMI 3005. ADMINISTRATIVE THEORY. Three credits. Three lecture hours per week.

The study of management as a coordination process, as well as the functions and procedures that out in this process. The different approaches to the study of management, with special emphasis on the behavioral scientist approach. Problems in relation to responsibility, authority, organization and ethics. Problems in centralization and decentralization, human behavior within the organization and group behavior. Emphasis is given to relations between individuals and groups in the processes of administration, planning organization direction and control.

ADMI 4007. STRATEGIC MANAGEMENT. Three credits. Three lecture hours per week.

Introduction to a comprehensive, conceptual and analytical decision process to help the enterprise evaluate its condition, analyze environmental forces, including the competition, and to translate that information into objectives and strategies that will allow the company to compete efficiently. Emphasis is on the responsibility of management in the development of programs design to keep business competitive in the long run.

ADMI 4019. SOCIAL RESPONSIBILITY OF FREE ENTERPRISE. Three credits. Three lecture hours per week.

Study of corporation's responsibility towards society. A detailed study of the political, legal and economic patterns of behavior and the social pressures that force the organization to contribute to the improvement of the socioeconomic system.

BASE 2007. ANALYSIS OF FINANCIAL STATEMENTS. Three credits. Three lecture hours per week. Prerequisite: CONT 3006.

This course is designed to develop the analytical skills in finance so that the students may posses a greater mastery in the understanding of the financial information that banks and other credit institutions need to assess. It includes: assets, recovery, cost and revenue analysis, financial status, working capital, diminution or increase of assets, investments, changes or fluctuations in financial statements, cash analysis, basic analytical procedure, indifference curve analysis.

CONT 3005. INTRODUCTION TO FUNDAMENTALS OF ACCOUNTING I. Four credits. Four lecture hours per week.

The objective of the course is to familiarize the student with the role of social, political and economic development of accounting, as well as with the basic concepts of accounting, as well as with basic concepts of accounting, so that he may use accounting data intelligently. The nature of accounting and its historical development, theory, methods and uses are considered. Emphasis will be on the meaning measurements, uses and limitations of income and other financial information. The need of management, owners, creditors, government agencies, clients and employee are considered.

CONT 3006. INTRODUCTION TO FUNDAMENTALS OF ACCOUNTING II. Four credits. Four lecture hours per week. Prerequisite: CONT 3005

Includes a discussion of basic theory and illustrative problems on source and uses of funds, cash flow, analysis of financial statements, cost systems (job order, process and standard) and consolidated statements. Income tax problems will also be considered. Controversial issues such as price level changes, income tax allocations and presentation of long-term leases in the balance sheet will also be discussed.

CONT 3007. INTERMEDIATE ACCOUNTING I. Four credits. Four lecture hours per week. Prerequisite: CONT 3006

A boarder and more intense study of the principles of accounting, procedures in closing the fiscal year, determination of manufacturing costs. Analysis of methods.

CONT 3008. INTERMEDIATE ACCOUNTING I. Four credits. Four lecture hours per week. Prerequisite: CONT 3007

Continuation of intermediate Accounting I. The study of accounting problems related to recording, valuation and presentation (on balance sheet statement) of the following items: fixed assets, investments, funds, reserves and short term and long term liabilities, The preparation and uses of variation analysis for working capital will be studied and the theories and basic principles involved in determining net income will be the object of a critical review.

CONT 3025 COST ACCOUNTING. Four credits. Four lecture hours per week. Prerequisite: CONT 3006

Study of the principles of cost accounting and its function in business enterprises. Study of the methods used in setting the basic for the determination of costs. Procedures used in compiling data on costs.

CONT 3035 ADVANCED ACCOUNTING. Four credits. Four hours of lecture per week. Prerequisite: CONT 3008.

A study of the theory and discussion of special problems related to trade, partnerships, installment sales, consignments, financial statements, branches, estates and trusts. Principles of governmental and institutional accounting are also discussed.

CONT 4005 COST ACCOUNTING II. Four credits. Four hours of lecture per week. Prerequisite: CONT 3025.

The study of the different ways of applying cost accounting to archives, effective planning and control of costs. These include control of fixed and variable budgets, standard and febrile cost, analysis of marginal income, distribution and administration cost. The inventory control and procedures, labor, and indirect cost are also emphasized. The different cost, the usefulness of graphs for presenting cost information: available alternatives are also studied. A series of analytical techniques that are needed by the accountant to produce information to the administration.

CONT 4016 MODERN DEVELOPMENT IN ACCOUNTING. Four credits. Four lecture hours per week. Prerequisite: CONT 3008

Discussion and analysis of postulates, current topics and controversial issues in the field accounting. Emphasis on the examination of generally accepted principles of accounting recently adopted by the profession as expressed in current statements and publications.

CONT 4017. THEORY AND PRINCIPLES OF AUDITING AND SYSTEMS. Three credits. Three lecture hours per week.

Study of the principles of auditing and their application in the examination of financial statements; the standard short form opinion, internal control systems, auditing programs and the rules of professional and ethical responsibilities of the independent auditor; also, contemporary development in the field of auditing.

CONT 4026. INTERNSHIP PROGRAM IN ACCOUNTING. Four credits. Four lecture hours per week. Prerequisite: CONT 3008.

This course is design to provide full time experience in a real work situation where the student will have the opportunity to put into practice the principles presented in class it also aims to have the student exposed to the situation that such a work experience can provide and that are instrumental in developing in him the professional and maturity required in the performance of his professional endeavors. The course will also furnish the student with the criteria necessary to determine the specific area within the accounting field in they wish to enter.

CONT 4036. MANAGERIAL ACCOUNTING. Four credits. Four lecture hours per week. Prerequisite: CONT 3006

Introduction to the uses of accounting for internal managerial purpose, explanation of interpretation and uses by management in planning and controlling business activities. Although emphasis is given to the use of accounting data by management, its use by investors and potential investors is also explained whenever deemed appropriate emphasis will be given to the following matters: internal control and reports to management, price level changes source and uses of funds, cost concepts and application, profit planning, cost volume profit relationship, and standard and variable costs.

CONT 4038. FEDERAL INCOME TAX. Four credits. Four lecture hours per week. Prerequisite: CONT 3006.

Study of the principles and procedures necessary to prepare an income tax return for individuals, partnership and corporations according to the United States of America income tax law. Special attention is given to the computation of gross income and deductions to determine taxable net income.

CONT 4039. INCOME TAX OF PUERTO RICO. Four credits. Four lecture hours per week. Prerequisite: CONT 3006.

The Puerto Rico income tax act and regulations covering taxable income; inclusions and exclusions; allowable deductions; flexible depreciation basis for determining gain of loss: Capital gains and losses; credits; computations of surtax and normal tax as affecting individuals, partnership and corporations. Practical problems and preparation of returns.

CONT 4049. PRINCIPLES FOR EXAMINING FRAUD. Four credits. Four lecture hours per week.

The course covers the principles and contemporary practices of identifying and examining fraud by means of lectures discussion and case studies. It includes an examination of the most recent and relevant legislation, jurisprudence, accounting principles and system analysis. The major objective is the preparation of persons who can assist in avoiding the consequences of loss due to fraud in public and private enterprises. The course is intended for students of business administration and computer science and also for those interested in intellectual and ethical enrichment.

CONT 4097. SEMINAR FOR PROFESSIONAL ACCOUNTING I. One credit. One lecture hours per week.

The student will participate in seminars, workshop and conference on current issues; organized by the certified public accounting association of Puerto Rico. The topics to be discussed will be: individual and corporate tax issues, jurisprudence and labor law, financial status, income taxes, types of business, accounting no auditing procedures and code of professional ethics. The department of business administration will actively participate in the selection of the topics programmed by the certified public accounting association.

DEME 4005. BUSINESS LAW. Four credits. Four hours of lecture per week.

Study and analysis of legislation, doctrines and jurisprudence that regulated commercial transaction in Puerto Rico's society. Integration of the norms within the Puerto Rico's legal system which includes topics and doctrines from both common law and civil law.

ECON 3021. PRINCIPLES OF ECONOMICS I. Three credits. Three lecture hours per week.

Fundamentals, scope and methods of economic analysis. Demand and utility. Supply and costs. Price and Production in perfect and imperfect markets. Economic structure and Economic power. Income distribution. The law of comparative advantage and international trade. Alternative economic systems.

ECON 3022. PRINCIPLES OF ECONOMIC II. Three credits. Three lecture hours per week. Prerequisite: CONT 3021

National accounting Keynesian theory. Income production and employment. Business cycles. Fiscal and monetary policy. Contemporary economic problems growth and economic development, inflation and unemployment, pollution and the quality of life, etc.

ECON 3085. ECONOMIC SOCIAL DEVELOPMENT OF PUERTO RICO. Three credits. Three lecture hours per week. Prerequisite: CONT 3022

Analysis of the economic systems of Puerto Rico, emphasizing the economic structure, the country's fundamental problem and their possible solutions.

ESTA 3001. BUSINESS STATISTICS I. Three credits. Three lecture hours per week. Prerequisites: MATE 3012 o MATE 3172

An introduction to the concepts of business statistics. Includes topics such as frequency distributions, descriptive measures, index numbers, probability and the concept of measures,

index numbers, probability and the concepts of mathematical expectation. Emphasis is placed on problems involving business decision-making under conditions of risks.

ESTA 3002. BUSINESS STATISTICS II. Three credits. Three lecture hours per week.

Prerequisite: ESTA 3001

Continuation of business statistics I. Discusses statistical sampling, testing of hypotheses, estimation, regression analysis, simple and multiple correlation and other methods of statistical business forecasting.

FINA 3005. INTRODUCTION TO INSURANCE. Three credits. Three lecture hours per week.

Problems inherent to the insurance field and its influence on the individual, on the economy and on society. Different techniques that can be used to deal with high risk. The handling of insurable risk through insurance policies, and the relationship of risk and public policy.

FINA 3006. BUSINESS FINANCE. Three credits. Three lecture hours per week.

Prerequisites: ECON 3021, CONT 3006

A study of the process of raising, administering, and distributing the funds of an enterprise. A study of different types of businesses with special emphasis on the modern corporation. Analysis of the stages of promotion, organization, expansion and liquidation of the corporation.

FINA 3007. MONEY AND BANKING. Four credits. Four lecture hours per week.

Prerequisite: ECON 3021

The origins of money. Coinage practice, monetary standards. Our present monetary system. Principles and problems of commercial banking. Commercial bank as lenders and contributors to the money supply. Bank reserves. Bank liquidity. Banking problems from the point of view of the stockholder, the management, the customer, and the public. Banking law of Puerto Rico. Clearing Houses. Bank Expansion in Puerto Rico and abroad. Price level and price indexes. Influence of inflation on modern society. The equation of exchange.

FINA 4005. LIFE INSURANCE. Three credits. Three lecture hours per week.

Prerequisite: FINA 3005

Insurance techniques as means of protecting the individual against economic loss due to mental or physical incapacity. Discussion of benefit, risk situations, rates and legal considerations.

FINA 4009. CREDIT AND COLLECTION. Three credits. Three lecture hours per week.

Prerequisite: BASE 2007

The study of nature, credit paper administration, function, investigation and analysis of credit. Explanation of place that occupies the recovery of collection of credit in a modern agency and the effect about the consumption, mercantile activities, other commercial activities and about the economy in the nation in general.

FINA 4015. BANK ADMINISTRATION. Three credits. Three lecture hours per week.

Prerequisite: FINA 3007

A study of the financial policies of an individual bank in contrast with the banking system. Emphasis on policies, not on routine. Analysis of the sources of bank funds with emphasis on the use of such funds. A brief historical background of banking institutions.

FINA 4016. REAL ESTATE. Three credits. Three lecture hours per week.

A basic course in the principles and practice of the real estate business and the socioeconomic force that underlie it.

FINA 4039. PUBLIC FINANCE. Three credits. Three lecture hours per week.

Prerequisite: FINA 3006

Underlying principles of public expenditures, taxation, public credit and budget making. Shifting and incidence of the different types of taxes. Problems in connection with the following kinds of taxes: property, income corporation, excise, inheritance. Problems of fiscal administration. Special attention is paid to taxation and fiscal organization in Puerto Rico.

FINA 4050. FINANCIAL MARKETS. Three credits. Three lecture hours per week.

Prerequisites: FINA 3006, FINA 3007.

The structure of financial markets and the application of the latest economy and monetary theories applied to financial markets are analyzed. Includes, among others, the following topics: the role of theory and financial policies; the implications of the structures of financial markets for the efficient functioning of the market; the interrelation between real and financial variables in the economy activity and other related types.

GERE 4027. PRINCIPLES OF GENERAL SUPERVISION. Three credits. Three lecture hours per week.

The study of the process of supervision emphasizing the knowledge understanding and development of the necessary skills in order to become an efficient supervisor, delegation, motivation, leadership, personnel development and personal relations. Also studied are: health and safety regulations (OSHA), the Equal Opportunity Act and the role of the supervisor in dealing with union and non-union members.

GERE 4035. ANALYSIS AND DECISION MAKING PROCEDURES. Three credits. Three hours of lecture per week. Prerequisite: ESTA 3002

An analysis of the decision - making techniques used by management in viewing problems, objectives and administrative strategies and in evaluating their efficiency. Mathematical models of certainty and uncertainty are discussed in analyzing and solving such problems.

GERP 2005. PRODUCTION MANAGEMENT. Three credits. Three hours of lecture per week. Prerequisite: ESTA 3002.

The application of modern management methods to manufacturing companies is studied. Issues related to purchases, inventory, quality and production control, establishing prices, and the administration of salaries and incentives are discussed. The establishment of production patterns, physical plant design, and the study of time and movement are discussed.

MERC 3115. PRINCIPLES OF MARKETING. Three credits. Three lecture hours per week. Prerequisite: ECON 3021

Introduction to the study of the marketing process as a management function. Emphasis in the analysis planning, implementation, organization and control of marketing programs.

MERC 4005. INTERNATIONAL MARKETING. Three credits. Three lecture hours per week.

This course studies the problems that occur in the market through national barriers, for example the marketing problems that occur within a number of markets of different nations. The situation of domestic firms that export, like those companies that assemble or produce in foreign markets. This course also studies the necessary functions for the distribution of good and serves from the exporter to international organization.

MERC 4006. THE ART OF SALESMANSHIP. Three credits. Three lecture hours per week. Prerequisite: MERC 3115.

Analysis of personal sales as a facet of marketing: knowledge of the product; study of the consumer and his/her needs; sales planning; salesperson personality.

MERC 4007. MARKETING RESEARCH. Three credits. Three hours of lecture per week. Prerequisite: MERC 3115

Study of the necessary functions for the gathering, classification, presentation and systematic analysis of data in a precise and objective manner about problems related to the marketing of goods and services.

MERC 4027. ADVERTISING. Three credits. Three lecture hours per week.

Analysis, design, implementation and control of advertising programs. Emphasis is on the design and evaluation of creative strategies.

MERC 4036. PUBLIC RELATIONS. Three credits. Three lecture hours per week.

Contemporary public relation practices and their application to the market. Public relations work organization; the planning and execution of a public relations program; new developments and tendencies and their application.

MERC 4128. PRODUCT MANAGEMENT. Three credits. Three lecture hours per week. Prerequisite: MERC 3115

Study and analysis of the marketing strategic and techniques related to the development of new products and different steps of products life cycle. Emphasis in the analysis of the factors that contribute to the success or failure of the products and in the design and implantation of marketing strategic and tactics.

MERC 4215. RETAILING MANAGEMENT. Three credits. Three lecture hours per week. Prerequisites: MERC 3115, MERC 4217

Development and implementation of marketing strategies in the context of retailing. Emphasis is on the analysis of the environment in which the enterprise competes and the marketing strategies that arise from environmental changes.

MERC 4216. SALES PRINCIPLES AND PRACTICES. Three credits. Three lecture hours per week. Prerequisites: MER 3115, MERC 4006

Study of theories and practices of personal sales. Emphasis in the study of the behavior of salesperson. The external factors which affects directly or indirectly the sales process and the effective sales strategies. Introduction to sales methods and techniques and verbal and no verbal communication.

MERC 4217. CONSUMER BEHAVIOR. Three credits. Three lecture hours per week. Prerequisite: MERC 3115

Analysis of the prevalent theories of consumer behavior. Study methods to examine this behavior that will help in marketing decision making.

MERC 4218. MANAGEMENT OF PHYSICAL DISTRIBUTION. Three credits. Three lecture hours per week. Prerequisite: MERC 3115

Analysis of activities pertinent to management of physical distribution such as warehouse management, order processing, packaging and customer service: management of transportation, commodity classification, regulation and rates, routing, documentation and carrier ability as well as the integration of these functions to the overall management activities of the business.

MERC 4219. INTERMEDIATE MARKETING. Three credits. Three lecture hours per week. Prerequisite: MERC 3115

Design of strategies and tactics, formulation of marketing policies; organization, demand analysis; planning of products; price systems; logistics; and sales promotion in the process of managerial decision making.

MERC 4235. INTERSHIP IN MARKETING. Three credits. Three lecture hours per week. Prerequisites: MERC 4215, MERC 4219

Practical experience of the theory and concepts learned in the classroom related to effective marketing management through 180 hours of work in a designated organization. Faculty advice and supervision for the student is provided for the process of adjustment to the working world.

REHU 4405. HUMAN RESOURCES MANAGEMENT. Three credits. Three lecture hours per week. Prerequisite: ADMI 3005

Introduction to strategies, practices, procedures and legal aspect related to the efficient utilization of human resources in organization. Study of the theories, methods and techniques of human resources management's function within domestic and global economic contexts.

REHU 4406. LABOR-MANAGEMENT RELATIONS. Three credits. Three lecture hours per week. Prerequisite: REHU 4405

Analysis of relations dynamics between labor unions and employers in organizations in Puerto Rico and U.S.A. from their origins to the present. Emphasizes the study of the structures of the parties involved in labor management relations as well as the strategies used by each one in accomplishing their goals introduction to the basics of the collective bargaining process, contract administration and their impact in the non-union sector.

REHU 4407. COMPENSATION SYSTEM. Three credits. Three lecture hours per week. Prerequisite: REHU 4405

Introduction to design, implementation and administration of efficient compensation system that become a vehicle of organizational satisfaction. Emphasis on organizational diagnosis in terms of the internal and external influences that the design and administration of compensation system.

REHU 4408. ORGANIZATIONAL BEHAVIOR. Three credits. Three lecture hours per week. Prerequisite: ADMI 3005

Introduction to fundamental concepts, theories and processes related to the study of individual, group and organizational behavior. Emphasis on the organization as an open system.

REHU 4409. HUMAN RELATIONS. Three credits. Three lecture hours per week.

An objective approach to the nature of human relations. Personality factors in human relations. The framework of human relations problems; formal organization, informal organization, labor unions, etc. The interaction between management, human relations and productivity: effective supervision; communication with employees; group dynamics; development of participation. Procedure and work system. Trends in human relations.

REHU 4419. LABOR LAW AND JURISPRUDENCE. Three credits. Three lecture hours per week.

Analysis of social and labor legislation (Local-Federal) in Puerto Rico and their impact in the management decision making process. Study and analysis of jurisprudence from the Supreme Court as well as its effects on organizations. The course emphasizes labor law, particularly, protective legislation.

REHU 4426. COLLECTIVE BARGAINING. Three credits. Three lecture hours per week.

Historical background of labor management relations. Collective bargaining and its role in modern society. General principles and practice of collective negotiation in the public and private sectors. Problems of collective bargaining steps and content of collective bargaining discussions and management of the agreement: its interpretation, solution of complaints and grievances, including arbitration.

REHU 4450. INTERNSHIP IN HUMAN RESOURCES MANAGEMENT. Three credits. Three lecture hours per week. Prerequisites: REHU 4005, REHU 4007, REHU 4419 y SICI 4008. Corequisite: REHU 4408

The practical experience of theory and concepts of human resources management learned in the class room is put into practice through 180 hours of work in a designated organization. Involves faculty consultation and supervision in the integration of the student into the working world.

COMPUTER SYSTEM INFORMATION

SICI 1008. INTRODUCTION TO COMPUTERS. Four credits. Three lecture hours and three practice hours per week.

Introduction to the use of computers in the field of industrial engineering. It includes a brief history of the development of computers, a general description of the structure and function of computers and an explanation of the numerical systems related to computers. It includes programming in BASIC, FORTRAN and other languages which can be applied to engineering. The student will become acquainted with the preparation of fluxograms and programming in BASIC.

SICI 3001. PROGRAMMING IN BASIC. Two credits. Three lecture hours per week. Prerequisite: one programming language. SICI 3011

The study of the languages used in scientific programming. It covers the principles of problem definition, algorithms, flowcharts, and codification of the following languages: basic, fortran, algol, PL-1 and other languages used in science and engineering.

SICI 3002. PROGRAMMING IN COBOL. Four credits. Five hours of lecture per week. Prerequisites: SICI 3011, SICI 3020.

Detailed study of the structure, syntax and codification of problems in COBOL language. The student is required to prepare and test programs for various exercises based on actual problems in industry and business.

SICI 3005. INFORMATION PROCESSING. Three credits. Three lecture hours per week.

Introduction to the concepts and terminology related to the computers. It will provide basic concepts of administration from the electronic data processing manager's point of view. It will also provide the necessary skills for using peripheral equipment, specially the electronic keyboard of terminals and microcomputers.

SICI 3008. OPERATING SYSTEMS OF MINI-COMPUTERS AND MICRO-COMPUTERS. Three credits. Three lecture hours per week. Prerequisites: SICI 3030, SICI 3011

Examines mini-computers and micro-computers, emphasizes hardware capacities and the language it uses, characteristics of software and its different application, and operation of the system.

SICI 3009. DATA BANKS. Three credits. Three lecture hours per week. Prerequisite: SICI 3002.

Basic concepts of organization design and application of computerized files. Sequential and random organization, concatenations and links between records of the same and or different files are discussed. One or various programming languages are used.

SICI 3011. INTRODUCTION TO COMPUTER SCIENCE I. Three credits. Three lecture hours per week. Co-requisite: SICI 3020

General introduction to the concepts and terminology related to computer programming logic. Design of algorithms and the representation using flowcharts pseudo code. Fundamental control structures in computer programs sequence selection and loops.

SICI 3012. INTRODUCTION TO COMPUTER SCIENCE II. Three credits. Three lecture hours per week. Prerequisites: SICI 3001 Y SICI 3020

Intermediate-level concepts and terminology related to computer programming logic. The following topics are discussed: parallel arrays, files, records, and arrays of records. In addition, basic sorting and searching algorithms are covered.

SICI 3015. ANALYSIS AND DESIGN OF INFORMATION SYSTEMS. Three credits. Three lecture hours per week. Prerequisites: SICI 3012, SICI 3002

This course is designed to prepare the student in the phases of analysis, design, and implementation of computerized system. This course is composed of discussion, application and solution of real problems in the industry.

SICI 3016. PROJECT IMPLEMENTATION. Four credits. Prerequisites: SICI 3030, SICI 3009, SICI 3015

Study and development of the industrial applications of data processing. The students will apply the previously acquire knowledge by completing a project using cases based on real life situation form industry.

SICI 3019. CONTROL AUDITING INFORMATION SYSTEMS. Three credits. Three lecture hours per week. Prerequisite: SICI 3016.

The causes of risks related to computerized information systems are examined along with the controls necessary to avoid the same. The technique utilized by the auditors in verifying the existence and quality of the controls are studied in detail.

SICI 3020. C-PROGRAMMING FOR SYSTEMS DEVELOPMENT. Three credits. Three lecture hours per week. Co-requisite: SICI 3011 Prerequisite: SICI 3012

Detailed study of the structure, syntax, and coding of problems in the C language. It is required that the student prepares programs based on application areas from business and industry.

SICI 3028. APPLICATION SOFTWARE Three credits. Three lecture hours per week. Prerequisite: SICI 4008

Provides the student an in depth knowledge and hands on experience on current widely used application software on the market place. Includes word processing, spreadsheets and database management systems. And other widely used programs.

SICI 3030. TELECOMMUNICATIONS. Three credits. Three lecture hours per week. Prerequisite: SICI 3012

The teaching of the basic knowledge of systems and the methods used in data communication such as communication channels “distribute process network,” communication protocols, signal modulators and their structure.

SICI 3039. COMPARISON OF PROGRAMMING LANGUAGES. Three credits. Three lecture hours per week. Prerequisites: SICI 3016.

This course introduces the principle of language programming, their design and implementation. The problems of automatic translation from one language to another and their syntax of a variety of modern languages will be studied. Emphasis will be focused at unifying the programming languages: those general languages, the ones for special purposes as well as those of low and high level.

SICI 3101. COOPERATIVE EDUCATIVE PRACTICE I. Three credits. Ten lecture hours per week of supervised practice. Prerequisite: CISO 3121 or HUMA 3101

A course organized in cooperation with private industry or government to provide the student with practical experience in his technical field. The work performed by the student will be

jointly supervised by the academic department and an appropriate official from the cooperating organization a written reports will be required from student during this practice and upon completion of the semester.

SICI 4008. PRINCIPLES OF ELECTRONIC DATA PROCESSING IN BUSINESS. Four credits. Four hours of lecture per week.

Study of the concepts and terminology utilized in the field of data processing. The diversity of programs with business application is emphasized, as well as the diverse ways in which they can help managers in the process of decision making. The concepts and commands of the operating systems are studied, as well as the programming most frequently utilized by managers: word processing and programming sheets.

SICI 4010. APPLICATION OF STATISTICAL ANALYSIS THROUGH. Three credits. Three lecture hours per week. Prerequisites: CISO 3155, SICI 4008

In this course the use of the computer for statistical analysis of an investigation in the field of the social sciences will be developed. This course requires use of the computer laboratory and a statistical program.

SICI 4020. STRUCTURAL SYSTEM ANALYSIS DESIGN. Three credits. Three lecture hours per week. Prerequisite: SICI 3015.

Emphasis on strategies and structural analysis and structured design of producing logical methodologies for dealing with complexity in the development of information systems.

SICI 4029. FUNDAMENTALS OF OPERATING SYSTEMS. Three credits. Three hours of lecture per week. Prerequisite: SICI 3008.

An extensive study of the general principles of operating systems. The basics of multiprocessing, managing real and industrial memories, merging of processes and resources solution to deadlocks.

SICI 4030. DATABASE PROGRAM DEVELOPMENT. Three credits. Three lecture hours per week. Prerequisites: SICI 3016, SICI 2055 or SICI 3020, SICI 4020, SICI 3009

Introduction to application program development in database environment with an emphasis on loading, modifying and querying the database using a host language (pascal). Discussion and application of data structures, indexed and direct file organization, models of data including hierarchical, network and relational. Discussion of storage devices, data administration and data analysis, design and implementation.

SICI 4036. DATA STRUCTURE. Three credits. Three lecture hours per week. Prerequisites: SICI 3020 ó SICI 2055, CISI 3012

Concepts and terminology related to the most common data structures such as arrays, records, linked list, stacks, queues, and trees. Sorting and searching algorithms are also covered.

SICI 4038. RESEARCH WORKSHOP. Four credits. Twelve lecture hours per week. Prerequisites: SICI 3016, SICI 4029

Provides the student with the methodology for research and developing computerized systems. It includes the study of all stages, from identifying the problem up to its solution. The faculty will select the problems and the students will present their conclusion in a written report.

SICI 4039. COMPUTER LAW. Three credits. Three lecture hours per week. Prerequisite: SICI 3016

The concepts, terminology and methodology of the field of computer law; with special emphasis on the implications that it bears on the professional practice of the fields of computer science, information systems and data processing.

SICI 4066. COMPUTER ASSISTED INSTRUCTION. Three credits. Three lecture hours per week. Prerequisites: SICI 3009, SICI 3001

Applications of CAI; interactive language; different types of computerized classes; Principles which govern their creation; computer managed instruction; integration into an operating system, maintenance of student files.

SICI 4175. INTRODUCTION TO JAVA PROGRAMMING. Three credits. Three lecture hours per week. Prerequisites: SICI 3012, SICI 3001

Introduction to object oriented programming concepts. Detailed coverage of the java language and its syntax.

BIOLOGY

BIOL 3010. CELLULAR AND MOLECULAR BIOLOGY. Three credits. Three lecture hours per week. Prerequisites: BIOL 3012; QUIM 3032. Co-requisite: BIOL 3020

Structure, function and regulation in cell biology from the macular molecular level to tissues with emphasis on research techniques.

BIOL 3011. GENERAL BIOLOGY I. Four credits. Four lecture hours per week. Co-requisite: BIOL 3013.

Study of the fundamental topics of organic life. A characterization of the properties, behavior, and ecological interdependency between the three different levels of biological organization: the cell; the organism; and the population. Laboratory practices at the molecular and cellular level. Zoology and Botany phenomena are studied in an integrated manner.

BIOL 3012. GENERAL BIOLOGY II. Four credits. Three lecture hours per week. Co-requisite: BIOL 3011

Study of Mendelian and Molecular Genetics, Mechanisms of genetic control, reproductive systems in animals and their development. This course integrates the topics of evolution. Ecology and behavior, which service to complement a general view of organisms as part of the biosphere.

BIOL 3013. GENERAL BIOLOGY LABORATORY. None credit. Three lecture hours per week. Co-requisite: BIOL 3011

Laboratory experience to complement and supplement general Biology I. Laboratory practice is developed under the direct supervision of the teacher, who guides students by giving introductory conferences complemented with the use of audio-visual resources.

BIOL 3014. GENERAL BIOLOGY LABORATORY. None credit. Three lecture hours per week. Co-requisite: BIOL 3012

Laboratory practice to complement and supplement General Biology II. Laboratory practice is developed under the direct supervision of the teacher, who guides students by giving introductory conferences complemented with the use of audio-visual resources.

BIOL 3020. CELULAR AND MOLECULAR BIOLOGY LABORATORY. None credit. Three lecture hours per week. Co-requisite: BIOL 3010

Laboratory practice to complement and supplement Biology 3010. Emphasis on the use of techniques for molecular and cellular analysis.

BIOL-3108. UNDERGRADUATE RESEARCH. Two credits. Six hours per week of contact. Prerequisite: BIOL 3012. Suggested electives: BIOL 3705, 3707; QUIM-3001-3002; QUIM 3031 3033; BIOL. 3305, 3306.

Supervised research in the area of biological sciences which provides the university student with the training and experience in the application of the scientific method and investigation.

BIOL 3115. GENERAL ECOLOGY. Four credits. Three lecture hours per week.

Prerequisite: BIOL 3011, 3012. Co-requisite: BIOL 3116

A study of the mutual relationships between organism and their natural environment. A study of the structure and function of ecosystems. Special emphasis on the ecosystem existing in Puerto Rico.

BIOL 3116. GENERAL ECOLOGY LABORATORY. None credit. Three lecture hours per week. Co-requisite: BIOL 3115

Laboratory practice to complement the general ecology course. Laboratory experience and field trips with emphasis on the ecological aspects of the common species found in Puerto Rico and the structure and composition of tropical terrestrial community.

BIOL 3117. INTRODUCTION TO OCEANOGRAPHY. Four credits. Three lecture hours per week. Co-requisite: BIOL 3115

Study of the geological, physical, chemical and biological principles governing the seas and oceans and their effects on marine communities. In the laboratory students are familiarized with modern techniques used in the analysis of the physical and chemical parameters of coastal waters, among others, temperature, currents, transparency, salinity and chemical composition.

BIOL 3118. INTRODUCTION TO OCEANOGRAPHY LABORATORY. None credit. Four lecture hours per week. Pre-requisite: BIOL 3115. Co-requisite: BIOL 3117

Laboratory practice of the introduction to oceanography course. Measurement of the physical, chemical and biological characteristics of Puerto Rico's coastal waters. Students will be familiarized with modern techniques used in the analysis of the different parameters.

BIOL 3155. HUMANITY AND THE ENVIRONMENT. Three credits. Three lecture hours per week. Pre--requisite: BIOL 3012

Course in environmental science designed to provide the student with an understanding of humanity's interdependence with the physical and social environment in addition to demonstrating the student's responsibility towards them.

BIOL 3305. GENETICS. Four credits. Three lecture hours per week. Prerequisite: BIOL 3012. Co-requisite: BIOL 3306

A study of the fundamental principles of heredity through the concepts of molecular biology. Identification, mechanism of action and transmission of genetic material. A detailed study of the physical organization of the gene, genetic behavior in individuals and in populations, the genetic control of metabolism and development.

BIOL 3306. GENETIC LABORATORY. None credit. Three lecture hours per week. Co-requisite: BIOL 3205

Laboratory exercises to complement and supplement topics discussed in biology 3305.

BIOL 3417. PLANT ORGANISMAL BIOLOGY. Four credits. Three lecture hours and three laboratory hours per week. Pre-requisite: BIOL. 3012, Co-requisite BIOL. 3418.

A study of general concepts of the taxonomy, anatomy, physiology, and ecology of plants.

BIOL 3418. PLANT ORGANISMAL BIOLOGY LABORATORY. None credit. Three hours per week. Co-requisite: BIOL 3417.

Study of cells and plant tissues. Structure and function of root, stem, leave and reproductive organs such as: flower, fruits and seed. Photosynthesis, growth and development. The classification and nomenclature of vascular and nonvascular plants.

BIOL 3425. ANIMAL ORGANISMAL BIOLOGY. Four credits. Three lecture hours per week. Pre-requisite: BIOL 3012

A survey of the different phyla or the animal kingdom. A general account of the Morphology, Physiology, Ecology and evolution of the different groups, with references to their importance to human welfare.

BIOL 3426. ANIMAL BIOLOGY LABORATORY. None credit. Three lecture hours per week. Co-requisite: BIOL 3425

The practical study of morphology, life cycle, physiologic, behavior patterns and ecology of different groups of animals through dissection, use of microscope slides, slides, pictures and live and preserved animals.

BIOL 3705. GENERAL MICROBIOLOGY. Four credits. Three lecture hours per week. Pre-requisite: BIOL 3012. Co-requisite: BIOL 3707; QUIM 3032

A study of microorganisms and their activities with emphasis on bacteria. Includes evolution, classification and identification reproduction, morphology, ecology, biochemistry, genetics and control. Includes applied aspects such as microbiology of food, land, water and basic principles of immunology.

BIOL 3707. GENERAL MICROBIOLOGY LABORATORY. None credit. Three lecture hours per week. Pre-requisites: BIOL 3012-3014, QUIM 3002-3004

Laboratory exercises to complement and supplement biology 3705. Emphasis on the use of basic techniques in the study of microorganisms.

BIOL 3740. BIOMETRY. Three credits. Three lecture hours per week. Co-requisite: BIOL 3012

Study of the statistical techniques applicable to Biology. Emphasis is given to: Descriptive statistics, regressions, correlations, tests of hypotheses, analysis of frequency and variance, the use of non-parametric tests, and use of the calculator and the computer.

BIOL 3791. HUMAN BIOLOGY PART III. Four credits. Three lecture hours per week. Pre-requisites: BIOL-3012

A study of the structure and function of the cell. The four basic tissue of the skeletal intergumentary, muscular and nervous system of the human body.

BIOL 3792. HUMAN BIOLOGY PART IV. Four credits. Three lecture hours per week. Pre-requisite BIOL-3791

The study of the structure and function of the circulatory, digestive, respiratory, urinary, endocrine, reproductive and immunological systems, aging and function of the human body.

BIOL 3793. HUMAN BIOLOGY III LABORATORY III. None credit. Three lecture hours per week. Co-requisite BIOL-3791

Laboratory for the course Human Biology III

BIOL 3794. HUMAN BIOLOGY IV LABORATORY. None credit. Three lecture hours per week. Co-requisite BIOL-3792

The laboratory of the course Human Biology IV

BIOL-3907. MOLECULAR BIOLOGY. Three credits. Three lecture hours per week. Prerequisites: BIOL-3012, QUIM 3032

The study of basic principles of molecular biology. A discussion of the structure, function and biosynthesis of the most important biological macromolecules and their interaction with the cell. An analysis is done of the fundamental biological processes in terms of the physio-chemical properties of these molecules. Emphasis is specially placed on DNA and its major role in the genetic process.

BIOL 3909. BIOLOGY SEMINAR. One credit. One lecture hours per week.

Seminar oriented towards the investigation of literature concerning scientific knowledge. The student will carry out an investigation project about an assigned topic that later will be presented to and discussed with classmates.

BIOL 3919. WATER MICROBIOLOGY. Three credits. Three lecture hours per week. Prerequisites: BIOL 3705

Basic principles of microbiology and their applications to water. Study of the major groups of microorganisms related to basic problems in water bodies management. Deals with the methods used for the microscopic control and analysis of water.

BIOL 3920. WATER MICROBIOLOGY LABORATORY. None credit. Three lecture hours per week. Pre-requisites: BIOL 3707

Techniques and methods of water microbiology related to industrial process it will emphasize in methods of detention of different indispensable components.

BIOL 4041. HUMAN GENETICS. Three credits. Three lecture hours per week.

Pre-requisites: BIOL 3012

Study of the concepts of human genetics and genetics technology for the detection, treatment, and prevention of hereditary illnesses. The origin and magnitude of genetic diversity of the human genome and the effect of the selection on the genotype and phenotype are analyzed. Social, cultural and ethical implications of genetic research are emphasized.

BIOL 4056. IMMUNOLOGY. Three credits. Three lecture hours per week.

Prerequisite: BIOL 3012

Discussion of the basic principals of immunology and its clinical applications in medicine and other disciplines. The course describes the function of the immunological system including cells, immunoglobuline organs. Also, some topics immunology such as: histocompatibility systems, tumor immunology, immediate and deled hypersensibility as well as self immunity will be discussed. Also, the immunological aspects of various human deseases. The interaction between microorganism that cause infectious deseases, the immunological and immunity will be described.

BIOL 4335. EVOLUTION. Three credits. Three lecture hours per week.

Prerequisite: BIOL 3305

Mechanisms, processes, and consequences of evolution: factors which cause genetic changes in population; speciation; population genetics; coevolution, evolution, and the inheritance of animal behavior.

BIOL 4375. CLINICAL MICROBIOLOGY. Three credits. Three lecture hours per week.

Pre-requisites: BIOL 3705, BIOL 3707

Etiology, pathogenicity, epidemiology, and laboratory analysis for the diagnosis of diseases caused by microorganisms. Emphasis will be placed on those diseases of high incidence in Puerto Rico.

BIOL 4415. INVERTEBRATES BIOLOGY. Three credits. Three lecture hours per week.

Pre-requisites: BIOL 3012

Introduction to the study of invertebrates with special emphasis on taxonomy, morphology, anatomy, ecology, physiology, development and evolutionary and phylogenic relationships.

BIOL 4417. INVERTEBRATE BIOLOGY LABORATORY. None credit. Three lecture hours per week. Pre-requisite: BIOL 3012

A study of the different groups that constitute that plant kingdom with emphasis on their morphology and evolution. The physiological and developmental processes of plants will also be studied.

BIOL 4607. MARINE ECOSYSTEMS OF PUERTO RICO. Three credits. Three lecture hours per week. Pre-requisites: BIOL 3115, BIOL 3425

The ecology of shallow marine ecosystems of Puerto Rico: predominant flora and fauna, population fluctuations, effects of physical factors, life strategies, and environmental disturbances. Field trips required.

BIOL 4755. HISTOLOGY. Three credits. Two lecture hours per week. Pre-requisite: BIOL 3012. Co-requisite 4756

Introduction to the microscopic anatomy of tissues and organs in animals with interest in the human being.

BIOL 4756. HISTOLOGY LABORATORY. None credit. Three lecture hours per week.

This course includes laboratory experiences with light microscopy to study tissues and organs in animals with interest in the human being. It also includes basic histological techniques in preparing tissues for light microscopy.

BIOL 4895. EXPERIMENTAL BIOTECHNOLOGY. Three credits. Three lecture hours per week. Pre-requisites: BIOL 3012

In the late 70's a revolution in biotechnology begins after the scientists induces human protein synthesis in microbial models. This revolution is bases on technology related to genetic engineering, recombinant DNA, and genetic modifications (Alcamo, 1996) with the development of these techniques we enter into a foregoing era of control and manipulation of genetic material, which could lead finally to the possibility of creating humans clones. The debate about legal, medical and social ethics of genetic engineering and biotechnology is constant in the modern society (Kiefer, 1987; Billing 1992)

CIBI 3001. FUNDAMENTALS OF BIOLOGY I. Three credits. Three lecture hours per week.

The course covers three main topics: The dynamics of living organisms, with special emphasis on man, organics evolution, and heredity. Selections from a physiology textbook are used as well as some original papers dealing with scientific research. These original papers are studied and analyzed with understanding the scientific method used by the researcher. A fourth hour a week is devoted to other activities such as viewing scientific films, attending lectures, or performing laboratory demonstrations. Some sections have two hour laboratory once a week instead of these activities.

CIBI 3002. FUNDAMENTAL OF BIOLOGY II. Three credits. Three lecture hours per week. Pre-requisite: CIBI 3001

The course covers three main topics: The dynamic of living organisms, with special emphasis on man, organic evolution, and heredity. Selections from a physiology textbook are used, as well as some original papers dealing with scientific researched. These original papers are studied and

analyzed with the dual purpose of acquiring knowledge of biology, and understanding the scientific method used by the researched. A fourth hour a week is devoted to other activities such

as viewing scientific films, attending lectures, or performing laboratory demonstrations. Some sections have two hour laboratory once a week instead of these activities.

CIIN 1003. INTEGRATED SCIENCES II. Three credits. Three lecture hours per week.

The study of the fundamental concepts of biology and physics needed for the teaching of modern science at an elementary level.

CIIN 1004. SCIENCE II LABORATORY. One credit. Three hours per week.

This lab develops the basic skills in using the lab equipment and materials related to elementary school biology and physics emphasis is given to the use of materials and equipment which are easily obtained and inexpensive.

CIIN 3003. INTEGRATED SCIENCES II. Three credits. Three lecture hours per week.

Course designed to prepare students in the area of science as teachers in the elementary level. Science is emphasized as an integrated dynamic discipline system and in constant change. The course is divided into two parts: Fundamental concepts in science, physics and chemistry and fundamental concepts in terrestrial science and space. In both parts the student is related with the material and references which he/she is to use as a teacher to accomplish future tasks.

CIIN 3004. LABORATORY FOR INTEGRATED SCIENCE II. One credit. Three lecture hours per week.

Course designed to develop basic skills in procedures, use of materials, and proper equipment of a science laboratory, future teachers will learn to substitute expensive and inaccessible equipment and laboratory materials for less expensive ones which are available in the student's home.

SOCIAL SCIENCE

ANTR 3005. INTRODUCTION TO CULTURAL ANTHROPOLOGY. Three credits. Three lecture hours per week. Pre-requisite: CISO 3122

The concept to culture: socio-cultural evolution, language technology, economy, social stratification, types of association, law, magic, religion, art, social change. The role of applied anthropology.

CIPO 3011. PRINCIPLES IN POLITICAL SCIENCE. Three credits. Three lecture hours per week. Pre-requisite: CISO 3122

Different view of political life, different concepts and approaches in the political sciences, within the social sciences. Analysis of the most important processes and institutions that intervene in the collective decision making process of the political system, universal mechanisms used to control social order. Analysis of political change and social control.

CIPO 3025. POLITICAL SYSTEM OF THE UNITED STATES. Three credits. Three lecture hours per week. Pre-requisite: CISO 3122

A study of the historical background of the United States Government and the political theory on which it is based. An analysis of the structure of this government at the national and states levels: the political process, with emphasis on separation of power, federalisms, pressure groups and political parties.

CIPO 3035. GOVERNMENT OF PUERTO RICO. Three credits. Three lecture hours per week. Pre-requisite: CISO 3122

Historical and analytical survey of the government of Puerto Rico from 1898 to the present; governmental institutions developed during United States rule, 1898-1952; the constitution of

the commonwealth of Puerto Rico; the political process in Puerto Rico; the legislature, the executive, the judiciary, local governments, and relations between Puerto Rico and the United State of America.

CISO 3121. AN INTRODUCTION TO THE STUDY OF THE SOCIAL SCIENCE. Three credits. Three lecture hours per week.

This course is directed toward a better understanding of social force that has produced the world in which we live. It introduces the student to the basic problems of man in contemporary society, such as the incorporation of the individual in society, population pressure, wealth and freedom.

CISO 3122. AN INTRODUCTION TO THE STUDY OF THE SOCIAL SCIENCE. Three credits. Three lecture hours per week. Pre-requisite: CISO 3121

This course is directed toward a better understanding of the social force that have produced the world in which we live. It introduces the student to the basic problems of man in contemporary society, such as the incorporation of the individual in society, population pressure, wealth and freedom.

CISO 3155. FUNDAMENTS OF STATISTICAL REASONING. Three credits. Three lecture hours per week. Pre-requisites: CISO 3122, MATE 3001

Application of the basic concept in statistical reasoning, the mechanic involved in the computation of basic statistical measure as applied to social problems. Emphasis on why and when to use certain statistical measure and to point out their limitations.

CISO 3225. SOCIAL MORAL. Three credits. Three lecture hours per week. Pre-requisite: CISO 3121

This course examines the guiding principles of moral reasoning and defense. It analyzes the current principal theories of ethical justification and studies the main contemporary moral problems.

CISO 3227. SEMINAR THE USE AND ABUSE OF DRUGS IN PUERTO RICO. Three lecture hours per week. Pre-requisites: PSIC 3003, SOCI 3245, CISO 3121

The seminar seeks to offer the student the opportunity to study the drug addiction phenomenon from the integral perspective. The psychosocial aspect and the historical context in which the drug addiction problem appears in Puerto Rico are discussed. A criminal analysis of the different kinds of treatment and rehabilitation that exist in Puerto Rico. Analysis the government public policy to fight against the drug problem, and prevention methods used by the private and public sector as well as the proposed alternatives for medication and legalization of drug are emphasized.

COOP 3005. HISTORY/PHILOSOPHY OF THE COOPERATIVE MOVEMENT. Three credits. Three lecture hours per week. Pre-requisite: CISO 3122

Present a global vision of the cooperative doctrine. Studies the principles and cooperative methods established by the precursors of this movement, and analyzes its evolution up to the present. Studies the historical development to the cooperative movement as a socioeconomic system whose main objective is to obtain the maximum level of fairness in the distribution of

goods and services, substituting the lucrative spirit for one of service and self-help. This system is compared with others in existence.

ECON 3005. INTRODUCTION TO ECONOMICS. Three credits. Three lecture hours per week. Pre-requisites: CISO 3122

Introduction to the theory and application of the fundamental concepts of economics: Historical concepts and perspectives, fundamental problems, methods of analysis, fundamentals of micro economy and contemporary and future economic problems.

GERO-3005. FUNDAMENTALS OF GERONTOLOGY. Three credits. Three lecture hours per week.

An overview on gerontology. Discussion of physical, social and psychological processes that affect aging people in Puerto Rico.

JUST 3005. INTRODUCTION TO THE CRIMINAL JUSTICE SYSTEM. Three credits. Three lecture hours per week. Pre-requisite: SOCI 3245

This course will analyze the traditional components of the judicial system: the policy, the courts, the correction agencies, and all those agencies that in one way or another intervene with the criminal justice system.

JUST 3205. FOUNDATION OF RIGHT WITHIN JUSTICE SYSTEM. Three credits. Three lecture hours per week. Pre-requisite: JUST 3005

In this course the legal foundation relevant to the criminal justice system are studied. Emphasis will be made on criminal law, the criminal procedure, and legal proof in Puerto Rico. The course of positive rights, the Constitution and the jurisprudence decisions will also be studied.

PSIC 3003. INTRODUCTION TO GENERAL PSYCHOLOGY. Four credits. Four lecture hours per week. Pre-requisite: CISO 3121

The course is a reflection on general psychology as a scientific discipline which has resulted from social historical processes. It examines its disciplinary frontiers, the biological and cultural foundations that constitute the human subject, fundamental areas and controversies among them the following are explores: perception, development of human cognition, memory, learning, language and the social demands made to psychology.

PSIC 3005. GENERAL PSYCHOLOGY. Three credits. Three lecture hours per week. Pre-requisite: CISO 3121

An introduction to scientific psychology, its range and limits, the biological and cultural basic constituting the human subject and selected topics in general psychology: perception, emotion, cognition, learning, memory, language and a reflection on the social functions of psychology.

PSIC 3006. SOCIAL PSYCHOLOGY. Three credits. Three lecture hours per week. Pre-requisite: PSIC 3003

A psychological approach to social life from the point of view of the individual. Emphasis on the critical analysis of the relationship between culture and personality, language, suggestion, imitation, attitudes, stereotypes, public opinion, propaganda, rumors, fashions and fads, and leadership. Consideration is given to the psychology of institutions and social conflicts.

PSCI 3015. THEORIES OF PERSONALITY. Three credits. Three lecture hours per week. Pre-requisite: PSIC 3003 or PSIC 3005

Study of the development of the moral personality from the standpoint of dynamic psychology; introduction to personality theories; brief survey of the techniques used in the measurement of personality.

PSIC 3016. PSYCHOPATHOLOGY. Three credits. Three lecture hours per week. Pre-requisite: PSIC 3015

Pathological reaction in the feeble-minded, neurotics and psychotics. Discussion of research methods and theories of abnormal conduct. Visit to local institution for the observation of clinical cases.

PSIC 3017. MEASUREMENT OF PERSONALITY. Three credits. Three lecture hours per week. Pre-requisite: PSIC 3015

A survey of the principles and techniques for measuring adjustment, sociability, intelligence, attitudes, motivation and character, and the use of scientific methods of appraising them quantitatively; the nature and status of projective techniques, questionnaires, and rating scales.

PSIC 3018. PHYSIOLOGICAL PSYCHOLOGY. Three credits. Three lecture hours per week. Pre-requisite: PSIC 3003 y CIBI 3002

An introduction to the physiological bases of human behavior, the structure and function of the nervous system and its relation to the psychological phenomena of sensation, perception, thought, motivation, learning and emotion.

PSIC 3019. CLINICAL AND COMMUNITY PSYCHOLOGY. Three credits. Three lecture hours per week. Pre-requisite: PSIC 3003

This is an introductory course of the history, the actual study and the issues in clinical psychotherapy, the investigation method and ethic within the field.

PSIC 3025. HUMAN DEVELOPMENT. Three credits. Three lecture hours per week. Pre-requisite: PSIC 3003 or PSIC 3005

Study of the human development from conception to death. Particular emphasis will be given to interpersonal, cognitive and motivational process learning cognitive development and psychodynamic theories will be provide the theoretical and empirical reference for the study of human development.

PSIC 3016. PSYCHOPATHOLOGY. Three credits. Three lecture hours per week. Pre-requisite: CISO 3122

Pathological reactions in the feeble-minded, neurotics and psychotics. Discussion of research methods and theories of abnormal conduct. Visit to local institutions for the observation of clinical cases.

PSIC 3116. INDUSTRIAL PSYCHOLOGIC. Three credits. Three lecture hours per week. Pre-requisite: CISO 3122.

A study of psychological techniques as applied to business and industry, including procedures for promotion, upgrading and selection of employees. Study of psychological factors that contribute to the efficiency of business or industrial organization.

PSIC 3155. PSYCHOLOGY AND THE LAW. Three credits. Three lecture hours per week. Pre-requisite: PSIC 3003

In this course the concept of human development, general psychology, psychological mediation and social psychology are integrated with those of the family rights, damages criminal law and the judicial decision process.

PSIC 3205. INTRODUCTION TO FORENSIC PSYCHOLOGY. Three credits. Three lecture hours per week. Pre-requisite: PSIC 3003

This course present an overview of the field of forensic psychologist in the criminal justice system will be highlighted.

PSIC 3305. COUPLE FAMILY RELATION. Three credits. Three lecture hours per week. Pre-requisite: CISO 3122

This course deals with couple's relationship and the family institution based in a social and developmental context. Changed and crisis that affect contemporary couples, marriages and families as well as strategies to cope with them, will be analyzed.

PSIC 3315. CONCEPTUAL ANALYSIS OF CRISIS INTERVENTION. Three credits. Three lecture hours per week. Pre-requisites: PSIC 3016 and PSIC 3025

This course deals with crisis processes, types, characteristic and possible crisis intervention strategies, as well the necessary skill to manage them.

PSIC 4006. EXPERIMENTAL PSYCHOLOGY. Four credits. Three lecture hours per week and two of laboratory. Pre-requisites: PSIC 3003, SOCI 3265 and CISO 3155.

Introduction to the experimental method in the study of behavior. Includes the considerations of the classical experiments and the design of an original research project.

PSIC 4015. PRACTICUM IN SOCIAL PSYCHOLOGY. Three credits. Six a ten hours of practice per week. Pre-requisite: PSIC 3006

The application of knowledge acquired I the social psychology area. The practicum will be carried out in a concrete community. The student will identify a problem, will develop an action plan for its solution, and will evaluate the results. The practice will be directed toward the development of programs of primary prevention. Among the problems that merit more attention are: violence and aggression, discrimination, tension between groups, drug addiction and other social problems.

PSIC 4095. COUNSELLING AND SHORT TERM THERAPIES. Three credits. Three lecture hours per week. Pre-requisite: PSIC 3016

This seminar will explore theory and issues in the area of community mental health with the emphasis on prevention. After the theoretical base is completed, student will practice in a mental health center at the community under supervision.

PSIC 4097. PRACTICUM IN CLINICAL PSYCHOLOGY AND MENTAL HEALTH. Three credits. Three lecture hours per week. Pre-requisites: PSIC 3016, PSIC 4160

The student must practice in a mental health center or a psychiatric hospital. Among others, the objectives of this course are to become familiar with the professionals of the field, to practice and demonstrate proficiency interviewing, counseling, group therapy, etc.

PSIC 4155. BEHAVIOR ANALYSIS. Three credits. Three lecture hours per week. Pre-requisite: PSIC 3003 or PSIC 3005

Principles, application and practice of the model of behavior modification. Emphasis will be given to the management of adaptation problems. Attention will be given to the concept of adaptation from the conductive cognoscitive perspective. It will also include: discussion and application of techniques on self. Control assertively, stress management and other adaptation problems.

PSIC 4160. INTERVENTION AND INTERVIEW IN CRISIS SITUATION. Three credits. Three lecture hours per week. Pre-requisites: PSIC 3003 ó PSIC 3005

This is a two part course on theory and practice. The first part involves the principles and application of the interview as essential information gathering instrument for the evaluation and decision is making process in different of the criminal justice system. The second part of the course addresses the topic of intervention in crisis situation. It includes theoretical and strategic considerations of the intervention process.

PSIC 4206. CORRECTIONAL PSYCHOLOGY. Three credits. Three lecture hours per week. Pre-requisites: PSIC 3003, JUST 3005

This course presents the most frequent problem in the psychological treatment of prisoners. The tasks of the correctional psychologist and the training and supervision of the paraprofessionals within the prison environment are discussed. The different psychological types the most frequent psychological types within the prison population are explored and the different treatment methods for these are analyzed. The violent offender, the antisocial personality, the sociopath and the psychopath, the alcoholic offender, the drug addicted offender, the sexual offender the formal offender and the juvenile offender are studied in depth. The different treatment used in the control of the above mentioned psychological dysfunctions are discussed.

PSIC 4415. PRACTICAL TO FORENSIC PSYCHOLOGY. Three credits. Three lecture hours per week. Pre-requisites: PSIC 3205, PSIC 3016, PSIC 4160 and JUST 3005

This course will provide student with a practice in correctional institutions and other related to forensic work. Student will be assigned cases to manage under the supervision of licensed psychologists. They will be exposed to individual and groups work experiences and interdisciplinary team work on cases within the institution.

SOCI 3005. CRIMINOLOGY. Three credits. Three lecture hours per week. Pre-requisite: PSIC 3245

The course begins with an analysis of the concepts of crime and delinquency, as well as the different theories aimed at explaining these concepts. The different factors which affect the crime problem are analyzed from a legal and sociological perspective, emphasizing the particular situation of Puerto Rico. Student will be familiarized with the criminal justice system.

SOCI 3025. VIOLENCE OF SOCIOLOGY. Three credits. Three lecture hours per week. Pre-requisite: SOCI 3245

This course will discuss the following concepts: Reform social change obedience and revolution interaction between the victim and the offender it will examine the concept of violence in the

Anglo-Americans and Hispanic societies it will explore the origin of violence its different expressions and the law violence in Puerto Rico its characteristics its cause and effect its future processes.

SOCI 3245. PRINCIPLES OF SOCIOLOGY. Three credits. Three lecture hours per week. Pre-requisite: CISO 3122

Fundamental concepts of sociology: society, human nature, communication, interaction, competition and conflict groups, adjustment and assimilation, social control status, change etc. An overall view which enables the student to interpret concrete situation and form the basic for later scientific preparation in the social science.

SOCI 3265. RESEARCH METHODS IN THE SOCIAL SCIENCE. Three credits. Three lecture hours per week. Pre-requisite: CISO 3122

Critical analysis of the principles and techniques of research in the fields of the various social science discussion of the historical development of these up to the present time; practical application of basic research method in field work; tabulation, analysis and report writing.

SOCI 3275. THE SOCIOLOGY OF DEVIANT BEHAVIOR. Three credits. Three lecture hours per week. Pre-requisite: CISO 3122

Pathological aspect of modern society: poverty, family disorganization, alcoholism and prostitution.

SOCI 3277. THE RIGHTS OF WOMEN IN SOCIETY. Three credits. Three lecture hours per week. Pre-requisite: CISO 3122

Analysis of the situation of women in different societies and its evolution, with emphasis on the social, cultural and legal development in Puerto Rico; includes the study institution involved with the protection of integral human growth of women in the Puerto Rico society.

SOCI 3285. SOCIAL DYNAMICS. Three credits. Three lecture hours per week. Pre-requisite: CISO 3122

Analysis of the social interaction between personalities and the group which they form.

SOCI 3335. SOCIAL DISORGANIZATION. Three credits. Three lecture hours per week. Pre-requisite: CISO 3122

A detailed analysis of the most relevant problems of social disorganization with which our society has to cope, such as discrimination, prostitution, delinquency, and the sexual revolution.

EDUCATION

EDES 3006. DIAGNOSIS AND CORRECTION OF DEFICIENCIES IN READING AND WRITING. Three credits. Three lecture hours per week. Pre-requisite: EDES 4006

Study of the difficulties in reading and writing in the elementary school, with emphasis on diagnosis and correction of such difficulties. Discussion of tests and techniques for diagnosis. Field experiences required.

EDES 3007. PHYSICAL EDUCATION STUDENTS SPECIAL NEEDS. Three credits. Three lecture hours per week. Pre-requisites: EDES 4006 and fourty credits approved in Bachellor of Education.

This course has the purpose of relation the students with the different activities of physical education for children with special needs. Through it the student will develop an understanding of public law 94-142 and physical education; physical development of the handicapped child; curricular development in physical education that will provide experiences and individual instructions; attention to individual needs selection and adaptation of equipment and material physical education.

EDES 3009. CARE OF THE CHILD IN THE CLASSROOM. Three credits. Three lecture hours per week. Pre-requisite: EDES 4006.

This course is offered to professors and regular students of the regional colleges. A discussion and analysis of the different methods used in dealing with the child's behavior in the classroom. It emphasizes the teacher's role in dealing with the student's behavior so it conforms to the norms established for the classroom.

EDES 4006. NATURE AND NEEDS OF EXCEPTIONAL LEARNERS. Three credits. Three lecture hours per week.

A general view of the nature and psychological and educational needs of exceptional children. Emphasis on identification of handicaps and use of individual and group processes for helping children with hearing difficulties, visual problems, speech disorders, emotional problems and intelligence deviations, including the mentally retarded and de gifted. The course will be offered by a team of instructors for each area of exceptionality and/or related areas.

EDES 4010. COMMUNICATION PROBLEMS OD PRE-SCHOOL CHILDREN. Three credits. Three lecture hours per week. Pre-requisites: EDES 4006, EDPE 3002.

Study of the communication problems of preschool and school aged children and the effects these difficulties have on the teaching-learning process. (This course was requested by Ponce as an elective for the Bachelor's Degree Program in Elementary Education.)

EDES 4049. CHARACTERISTICS AND NEEDS OF THE CHILD WITH SPECIFIC LEARNING DISABILITIES. Three credits. Three lecture hours per week.

Introductory course that discusses the theories on the origin of the specific disability, the characteristics present in the child, the identification and referral to special education services.

EDES 4050. METHODS, TECHNIQUES AND MATERIALS USED IN THE EDUCATION OF THE EMOTIONALLY-DISTURBED. Three credits. Three lecture hours per week.

The study of the learning problems of the emotionally disturbed child and the analysis of the modern education approach (programs, techniques, materials, diagnosis, corrections) that is used in educating this child. Also studied is the role of the teacher and other professional personnel in identifying, diagnosing and educating emotionally-disturbed children and those with deviate conduct.

EDFU 3001. HUMAN GROWTH AND DEVELOPMENT I. Three credits. Three lecture hours per week.

The first semester will be devoted to an inquiry into the nature of psychology as background for a better understanding of the educational process. The growth and development of children and adolescents will be examined, as well as the natural and environmental forces which influence the development of a well balanced personality. The second semester the student will analyze the psychological principles which underlie the teaching-learning process and the individual and social conditions which act upon it. Analysis of the process of evaluation and the principles underlying the creation of education testing and grading.

EDFU 3002. HUMAN GROWTH AND DEVELOPMENT II. Three credits. Three lecture hours per week. Pre-requisite: EDFU 3001

In this course the student comes into contact with the principles of psychology which explain the learning-teaching process and the conditions in each individual that affect it. Part of the semester is dedicated to the study of the evaluation process; special attention is given to the principles that govern the creation of educational tests and student promotions.

EDFU 3007. SOCIAL FOUNDATIONS OF EDUCATION. Three credits. Three lecture hours per week.

Analysis of the basic social science principles in terms of the educational process. Study and discussion of the social problems that have conditioned the development of education in Puerto Rico.

EDFU 3028. FAMILY AGENT OF SOCIAL CHANGE. Three credits.

The topic of the family is one of great relevance. The social changes that have place in Puerto Rico make it imperative to reevaluate the institution of the family so as to search for alternatives that will improve the humanistic dimension that should prevail in this institution and thus contribute to form a better Puerto Rico for the future.

EDFU 4007. PRINCIPLES OF RESEARCH. Three credits.

The purpose of this course is to acquaint the student with the techniques and methods of scientific research. It is geared to the development of the ability to identify problems and hypotheses, and to the selection of methods for gathering, analyzing and interpreting data.

EDFU 4019. PHILOSOPHICAL FOUNDATIONS OF EDUCATION. Three credits. Three lecture hours per week.

Study of philosophical theory and its relationship to pedagogical practice. Presentation of major problems that have been caused by conflicting educational philosophies in terms of their historical development and their present impact.

EDFU 4105. ADULT HUMAN DEVELOPMENT. Three credits. Three lecture hours per week.

This course provides the student with opportunities to related in specific areas of growth and human development in the adult stage as in: scientific base that fundaments his development; maturity and apprenticeship existent relationship, between genetic and the ambient in human

development, knowledge of the different stage of growth and development from young adult to agony and death.

EDFU 4107. HEALTH AND SECURITY. Three credits. Three lecture hours per week.

This course will give the participants opportunity to investigate, learn and comprehend information about security, accidents and disaster in order to justify the need for prevention indifferent setting of life. Also they will identify risky conditions for human security, factors that put people at risk, behavior that requires modifications, and effective ways or strategies that make people fell motivated to correctly apply security rules for the protection of their health lives.

EDPE 1005. TEACHING OF PHYSICAL EDUCATION AT THE PRESCHOOL ELEMENTARY SCHOOL LEVELS. Two credits. Two hours a week of lecture and one hour of laboratory a week.

A study of the history and development of physical education and the physical education program for elementary grades. Relevant laboratory experiences complement the course.

EDPE 2005. THE TEACHING OF ART AT THE PRESCHOOL AND ELEMENTARY SCHOOL LEVELS. Two credits. One hour of lecture per week and two hours of laboratory.

Instructional methods and materials that may be used in the elementary grade classroom to develop the capacity for artistic expression in the plastic arts: the development of the teacher's sensitiveness and his ability to transmit it to his pupils. The course will consist of lectures, discussions and a workshop, which will be conducted in an especially reserved art room.

EDPE 2006. THE TEACHING OF MUSIC AT THE PRESCHOOL AND ELEMENTARY SCHOOL. Two credits. One hours of lecture per week.

Songs and dramatization of chanted games, the playing of the recorder to obtain rhythmic and melodic expression, the teacher will make use of the student's auditory experiences. The study of the correct methodology to guide students in their artistic creations. Through their experiences, the student will observe the individual nature of artistic communication and feelings, emotions and ideas involved in this process.

EDPE 2007. ELEMENTARY SCHOOL INTERNSHIP. Six credits. Fifteen hours a week of practice. Pre-requisite: EDPE 2008.

The beginning teacher works three hours daily, five days a week, for one semester in one of Puerto Rico's public schools. The student-teacher will be under the guidance and supervision of a regular teacher and a teaching-practice supervisor. The practice is complemented by lectures, demonstrations, direct observations, and participation in other activities appropriate for teachers.

EDPE 2008. CURRICULUM AND TEACHING IN ELEMENTARY SCHOOL SEMINAR. Three credits. Three lecture hours per week. Pre-requisite: EDFU 3002.

Analysis and discussions of the elementary school curriculum and how to implement it. Special attention is given to the writing of behavioral objectives, classification of questions, individualized instruction, and student grouping and planning of learning activities.

EDPE 3001. THE TEACHING OF LANGUAGE ARTS IN THE ELEMENTARY SCHOOL I. Three credits. Three lecture hours per week.

The course “The Teaching of Language Arts in Elementary School” seek that the students acquire consciousness of their ethical responsibility in the development of Spanish as the mean of communication and expression and indentify its importance as the means of teaching in he elementary school program (K-6). The content of this course is organized around six basic units that present a logical sequence of activities that permits the demonstration of the thematic trajectory of the course:

- a. the nature of language
- b. the nature and developing of the child
- c. general considerations of the language arts
- d. the arts of listening and writing
- e. resources for the teaching of language and methodology recommendations
- f. adequate techniques for the development of the oral and aural forms of the language

EDPE 3002. TEACHING OF LANGUAGE ARTS IN ELEMENTARY SCHOOL II. Three credits. Three lecture hours per week. Pre-requisites: EDPE 3001

The course “The Teaching of Language Arts in Elementary School” seek that the students acquire consciousness of their ethical responsibility in the development of Spanish as the mean of communication and expression and indentify its importance as the means of teaching in he elementary school program (K-6). The content of this course is organized around six basic units that present a logical sequence of activities that permits the demonstration of the thematic trajectory of the course:

- a. the nature of the acts of listening and writing
- b. the art of listening and writing
- c. resources for the teaching of the written language
- d. the adequate techniques for the development of skills in the language arts: listening and writing
- e. the constant interaction of the language arts

EDPE 3005. THE CHILD AND LANGUAGE. Three credits. Three lecture hours per week.

This course provides for the study of the child language development, its philosophic, psychologist and sociopedagogic perspectives. It emphasizes in the acquisition of the basic language concept, completed with clinical experiences. It specializes in preschooler and primary education.

EDPE 3006. TEACHING OF SOCIAL STUDIES IN THE ELEMENTARY SCHOOOL Three credits. Three lecture hours per week.

Curricular trends, instructional practices, teacher-pupil planning and evaluation, unit organization, use of community resources. Clinical experience required.

EDPE 3008. ASSESSMENT IN ELEMENTAL SCHOOL. Three credits. Three lecture hours per week. Pre-requisites: EDFU 3001, EDFU 3002.

A study of the basic concepts, principles and techniques used in evaluating the results of the education process. It also emphasizes the relation between academic evaluation and effective teaching.

EDPE 3010. TEACHING OF SOCIAL STUDIES IN ELEMENTARY SCHOOL. Three credits.

In this course, special attention will be given to concepts and generalization which have emerged from the social science disciplines. The curriculum for social studies instruction at the elementary level will be analyzed. However, emphasis will be put on grades K-III.

EDPE 3011. TEACHING OF MATHEMATICS AT THE ELEMENTARY LEVEL. Three credits.

Methodology and basic content of mathematics courses in the elementary school.

EDPE 3018. THE TEACHING OF ENGLISH AS A SECOND LANGUAGE. Three credits. Three lecture hours per week. Pre-requisite: INGL 3102

Analysis of the nature and functions of language; study of the phonological, morphological and syntactic characteristic of American English and the basic differences between it and the Spanish spoken in Puerto Rico; study of the principles underlying; the teaching of foreign languages; analysis of the problems arising when teaching English to Puerto Ricans; specific methods; examination of textbook used in Puerto Rico; plan development for guiding and evaluation the teaching of English as a second language. Laboratory experience in elementary schools in required.

EDPE 3041. SCIENCE IN THE ELEMENTARY SCHOOL. Three credits. Three lecture hours per week.

The course is based on the content of science courses in the active curriculum of the elementary school. Students have the opportunity to develop skills in the processes of science (observing, using space-time relationships, predicting, measuring inferring, etc) and to apply them in the analysis of laboratory exercises will be selected from among courses of study that are currently being implemented in the public schools of Puerto Rico and from other innovative elementary school science programs.

EDPE 3058. THE TEACHING OF GRAMMAR IN THE ELEMENTARY LEVEL. Three credits. Three lecture hours per week.

The teaching of Spanish grammar following a systematic approach closely related to the language arts and the cognitive development of the elementary school student.

EDPE 3060. LITERACY DEVELOPMENT IN THE PRIMARY LEVEL. Three credits. Three lecture hours per week.

Analysis of the principles that lay the foundation for the active development of the reading and writing processes in the primary level. It fosters the acquisition of skills need in order to be able to implement approaches, methods and techniques to teach reading and writing. It requires field experiences.

EDPE 3065. PEDAGOGICAL INNOVATIONS. Two credits. Three lecture hours per week.

Design for Ponce. (Bachelor in Elementary Education Program). Analysis and discussion of the latest focuses or pedagogical techniques and new prevailing tendencies in the different subjects or disciplines that are taught at elementary level. Special attention will be given to the introduction or establishment of innovated programs such as: non grade school, team teaching,

individualized teaching, the use of instructional modules or instructional programs, phased scheduled, and the employment of technological educational resources to enrich learning. Visit to schools to observe the latest innovation in functions.

EDPE 3097. TEACHING OF MUSIC IN THE ELEMENTARY SCHOOL. Three credits.

Songs and dramatization of chanted games, the playing of the recorder to obtain rhythmic and melodic expression, the teacher will make use of the student's auditory experiences. The study of the correct methodology to guide students in their artistic creations. Through their own experiences, the student will observe the individual nature of artistic communication and feeling, emotion and ideas involved in this process.

EDPE 3116. TEACHING SCIENCE AT THE ELEMENTARY LEVEL. Three credits. Three lecture hours per week.

The course aims at identifying and analyzing those basic scientific concepts that an elementary school teacher must possess in order to achieve more effective teaching. The Education Department guidelines, texts, and programs will be analyzed. Emphasis on learning activity planning, writing of performance objectives and teaching methods will be given.

EDPE 3325. CREATIVE DEVELOPMENT OF PRESCHOOL THEATER AND MUSICAL ARTISTIC EXPERIENCES. Three credits.

Study and analysis of creativity development as a dynamic and unifying activity; and of creative teaching as a tool to fulfill the demands and challenges of the contemporary world. The study includes the artistic development of the child up to adolescence, experimenting with activities, resources, and materials for the development of skills and competencies of preschool and elementary level children in the subjects of music, art, and theater. Includes the analysis of the curricular implications.

EDPE 4016. PRACTICE IN THE ELEMENTARY SCHOOL. Six credits.

The student is assigned to a public elementary school for three hours daily, five days a week. Four days will be devoted to teaching and participation in other teacher-oriented activities. One day a week will be spent in a seminar with the university supervisor to analyze and discuss the problems students are facing in student teaching.

EDPE 4210. PHYSICAL EDUCATION ELEMENTARY SCHOOL. Three credits. Two hours lecture and one hour practice per week.

A study of the history and development of physical education and the physical education program for elementary grades. Relevant lab experiences complement the course.

EDPE 4335. SEMINAR CURRICULUM ELEMENT. Three credits.

Analysis and discussion of the elementary school curriculum and how to implement it. Special attention is given to behavioral objective, classification of question, individualized instruction, and student grouping and planning of learning activities.

EDPE 4340. TEACHING PRACTICE ELEMENTARY SCHOOL. Six credits.

The beginning teacher works three hours daily, five days a week, for one semester in one of Puerto Rico's public school. The student teacher will be under the guidance and supervision of

a regular teacher and a teaching practice supervisor. The practice is complemented by lectures, demonstration, direct observation, and participation in other activities appropriate for teachers.

EDFI 1006. RECREATION FOR THE PHYSICALLY HANDICAPPED. Two credits. Two hours of lecture per week and one of practice.

The possibilities of offering the physically handicapped recreational activities in order to foment a positive attitude toward life. Based on the belief of recreation for a democratic society, this course teaches that the physically handicapped also have the right to these activities. Emphasizes the special techniques recommended for working with achieving maximum group participation.

EDFI 3009. FOLK DANCE I. Two credits. One hour of lecture per week and two of teaching folkdance.

Short history of the development of dance; information about the origins and styles of specific dances and about the customs of the peoples who practice them. Simple folk dances with emphasis on fundamental movements. Dance exercise.

EDFI 3025. ELEMENTARY VOLLEYBALL. Two credits. Three hour of lecture per week.

Includes the theory and practice of the sport. Knowledge or the skills and fundamental techniques, preparation and training for the sport. Development of skills at an advanced level. Techniques of competition.

EDFI 3035. ELEMENTARY BASKETBALL. Two credits. Three lecture hours per week.

Includes the theory and practice of the sport. Knowledge of the skills and fundamental techniques, preparation and training for the sport. Development of skills at an advance level. Techniques of competition.

EDFI 3075. COACHING AND OFFICIATING TRACK AND FIELD. Two credits. One lecture hour per week and two of teaching skills.

Theory, strategy and mechanics of coaching various interscholastic and intercollegiate track and field events.

EDFI 3096. TEACHING PHYSICAL EDUACTION K-3. Two credits. Two lecture hours per week.

In this course, emphasis will be given to the curriculum, the organization, and the planning of a K-3 elementary school physical education program. Selection and practice of activities through the use of the movement teaching method which contributes to the perceptual, motor, emotional, and intellectual development of K-3 children will be given emphasis.

EDFI 3097. TEACHING PHYSICAL EDUCATION 4-6. Two credits. Two lecture hours per week.

In this course, emphasis will be given to the curriculum, the organization, and the planning of a 4-6 elementary school physical education program, and to the selection and practice of appropriate activities for the development of 4-6 elementary school children. Emphasis will be given to physical education teaching methods and techniques.

EDFI 3371. BASIC COURSE PHYSIC EDUCATION. One credit.

Principles of physical education; physical conditioning; elementary volleyball; lectures on venereal diseases and drug abuse.

EDFI 3385. PHYSICAL FITNESS. Two credits. Three hours of lecture and two hours of practice per week.

Knowledge and understanding of physical fitness and its relationship to health. Methods for achieving the level of conditioning necessary to obtain and maintain desirable physical proportions.

EDFI 3405. GYMNASTICS. Two credits. Three hours of lecture and two hours of practice per week.

Leads to demonstrable skill in the basic exercises comprising the competitive gymnastic program.

EDFI 3425. WEIGHT LIFTING. Two credits. One hour of lecture and two hours of practice a week.

During the theoretical part of the course, the history, rules, terminology and principles of the sport will be studied. Olympic weight-lifting and free-style weight-lifting will be taught during the skills teaching portion. Special emphasis will be given to the sport as a means of conditioning the body for other sports.

EDFI 3451. ELEMENTARY TENNIS. Two credits. Three hours of lecture per week.

Includes the theory and practice of the sport. Knowledge of the skills and fundamental techniques, preparation and training for the sport. Development of skills at an advanced level. Techniques of competition.

EDFI 3452. ADVANCED TENNIS. Two credits. Three hours of lecture per week. Pre-requisite: EDFI 3451

Includes the theory and practice of the sport. Knowledge of the skills and fundamental techniques, preparation and training for the sport. Development of skills at an advanced level. Techniques of competition.

EDFI 3465. PERSONAL AND COMMUNITY HEALTH. Three credits. Three hours of lecture per week.

Basic knowledge of current individual and community health problems.

EDFI 3470. HEALTH AND PERSONAL CARE. Two credits. Three hours of lecture per week.

It is pretended that the students learn the personal care aspects and its relationship with the health. It will include themes related with nutrition, physical exercises, sleep, rest, the stress manage, and the correct way to consume different products. In addition, the course will give the teachers opportunities to use variety educational strategies and play the role of group facilitator. In this way the students will practice different activities as: interviews, study cases, independent studies, debates, peer work, cooperative work, and socialized discussion.

EDFI 3475. SOFTBALL, VOLLEYBALL AND BASEBALL. Two credits. One hour of lecture and two hours of practice a week.

Leads to demonstrable skill in the basic aspects of those sports necessary to be demonstrated adequately in a physical education class.

EDFI 3555. HISTORY AND PRINCIPLES OF PHYSICAL EDUCATION. Three credits. Three hours of lecture per week.

The origin, nature and development of physical education to the present time as experience and medium of education.

EDFI 3645. FIRST AID & ATHLET TRAINING. Two credits. Three hours of lecture per week.

A consideration of the incident and methods of prevention and care of injuries: conditioning of athletes and safety precautions.

EDFI 3655. GAMES FOR ELEMENTARY SCHOOL. Two credits. Three hours of lecture per week.

Theory, practice and methods of games of simple organization, relays, lead-up games and sports, track and field events, and special activities.

EDFI 3665. RECREATION GAMES. Two credits. Three hours of lecture per week.

Includes the theory and practice of a variety of activities for both men and women. Includes table tennis, badminton, shuffleboard, ring tennis and others.

EDFI 4155. INTRODUCTION TO PHYSICAL EDUCATION HANDYCAPPED CHILDREN IN THE ELEMENTARY SCHOOL. Three credits. Three hours of lecture per week.

Introduces the student to the field of physical education for handicapped children and the differences in term of their limitations, physical abilities and motor skills. Different areas of sensorial perception, conditions, convulsions, dyslexia, neuromuscular conditions, cardiovascular problems, diabetes and emotional disturbances are studied. Introduction to sign language, the manual alphabet and signs related to the teaching of physical education.

EDFI 4156. PERCEPTUAL MOTOR TEACHING. Two credits. Three lecture hours per week.

In this course, emphasis will be given to the perceptual motor development of children, to therapeutic techniques and theories applied to the perceptual motor development of children, and to perceptual motor development through the practice of movement activities.

EDFI 4159. ANATOMY AND KINESIOLOGY WITH LABORATORY. Three credits. Three hours of lecture per week.

Introduction to the study of the composition and structure of the human body and the biomechanics of its movement. It includes topics such as: the study of the human cadaver and the biomechanical analysis of various body human in activity related with physical education. It presents various reasons for which a future physical education teacher such know each of the kinesiology concepts. They should be able to locate, name, and identify the principle actions of

the muscles or group of muscle. Identify the osteology, miology, angeology, and neurosis involve in different physical activities and be able to use them learning experiences. Mention,

explain, demonstrate, define and apply the principles of physics involved in different physical exercises.

EDFI 4165. MANAGEMENT IN PHYSICAL EDUCATION, RECREATION AND SPORTS. Three credits. Three hours of lecture per week.

Introduction to planning, organization, supervision and administration procedures involved in a physical education, sports and/or recreation program. It includes legal implications, professional skills in management of students in physical education, sport and/or recreation programs. Introduction to computer software for management purposes.

TEED 1005. AUDIO-VISUAL WORKSHOP. Three credits. One hour of lecture and five of workshop per week. Discussion of characteristics and advantages of audiovisual resources in elementary school teaching. Systematic analysis of communication process and learning theories that apply. Basic skills in the preparation of graphic materials.

TEED 3008. INTRODUCTION TO EDUCATIONAL TECHONOLGY. Three credits. Three hours of lecture per week.

Analyze the role of educational technology in contemporary education. Familiarizes the student with the concept of instructional systems, education media, their characteristics, potential and limitations. Discusses the role of education technology in the teaching-learning process and communication.

TEED 3009. PREPARATION OF GRAPHIC MATERIAL. Three credits. Three hours of lecture a week. Pre-requisite: TEED 3008.

It includes the simple and economical methods of preparing audiovisual materials for the classroom: lettering, coloring, slide mounting, preparation of materials for low cost exhibitions and the basic principles of photography that permit the teachers to improve their presentations

TEED 3035. INTEGRATION OF TELECOMMUNICATION TO THE CLASSROOM. Three credits. Three hours of lecture per week.

The study of the telecommunications as an effective medium for the enrichment of the learning process. Basic knowledge is imparted for the identification, searching and interchange

TEED 4018. INTRODUCTION TO COMPUTERS IN EDUCATION. Three credits. Three hours of lecture per week. Pre-requisite: TEED 3008

Emphasis on their evolution, impact and educational implications, theories supporting computer use, the analysis of studies and research findings, and the evaluation and selection of software. Practice with some computers programs. Study of basic aspect about a computer lesson development.

TEED 4020. COMPUTER ASSISTED INSTRUCTION. Three credits. Three hours of lecture per week. Pre-requisites: TEED 3008, TEED 4018

To provide the student the opportunity to produce lessons for computer assisted instruction utilizing microcomputers. Students will have the opportunity to interact with the different types

of computer assisted instruction, computer languages and evaluation methods available for use in microcomputers for instructional purposes.

TEED 4038. PRODUCTIVITY PROGRAMS FOR MICROCOMPUTERS. Three credits. Three hours of lecture per week. Pre-requisites: TEED 4018, TEED 4020

Prepares teachers in the use of programs designed to facilitate administrative work such as: keeping student's records, writing documents, preparing handouts, and keeping inventories among others.

TEED 4045. COMPUTER LABORATORY ADMINISTRATION. Three credits. Three hours of lecture per week. Pre-requisite: TEED 4018.

Development of the administrative competences necessary to realize common activities at a computer laboratory. Preparing inventories, buying equipment and materials, planning seminars, preparing budgets and evaluating and integrating materials to the elementary and secondary school curriculum.

CONTINUING EDUCATION AND PROFESSIONAL STUDIES DIVISION (DECEP)

EDFU 3017. EVALUATION OF LEARNING. Three credits. Three hours of lecture per week. Pre-requisite: EDFU 3002

To create consciousness on the part of the student-teacher toward the philosophy of evaluation as a part of the educational process and promotes a knowledge of the quantitative and qualitative techniques of evaluation and their uses. The evaluation techniques will be analyzed, and practice will be offered in the development to valid and reliable evaluative instruments to identify, stimulate, predict and guide student behavioral characteristics.

EDFU 3110. CONCEPTS AND PRINCIPLES OF PUBLIC HEALTH. Three credits. Three hours of lecture per week.

This course will present a conceptual and integral picture of the basic principles related to public health and health education. It will study the natural history of the term disease and the different levels of prevention as: primary, secondary and tertiary giving emphasis to the primary prevention, that is, promotion and education. The goal of the general promotion of the health by the education, knowledge and moral values that will enrich the health. They will be discussed basic concepts of epidemiology. They will be analyze the factors that interview is the health of the individual.

EDFU 3115. BIBLIOGRAPHY AND REFERENCE. Three credits. Three hours of lecture per week.

A study of the most important works in the different fields of research, including the basic types of reference materials; encyclopedias, dictionaries, yearbooks, handbooks, periodical indexes and bibliographies.

EDFU 4106. HUMAN SEXUALITY. Three credits. Three hours of lecture per week.

The course will give the students to opportunity to visualize sexuality as an important and vital part in the development of his/her whole life. It is intended to expose the students in the different sexuality areas: physical, psychological, social-cultural and spiritual and the educative implications of this development since childhood to elderly. It will be discuss typical erotic behavior problems, STD infections, and sexual dysfunction. This educative experience will guide the students to identify the difference between sexual reality and sexual myths in order to develop positive attitudes among them. There must be a special emphasis, based in our historic and cultural perspective, in the following themes: high risk sexual.

EDFU 4109. DYNAMIC AND DEVELOPMENT OF THE HUMAN BEING'S PERSONAL. Three credits. Three hours of lecture per week.

The course is based on some theatrical approaches visualize the dynamics and development of he human being's personalities problems and behavior identify as high risk (drug use and abuse, tobacco, alcohol). It will also evaluate its repercussion in the society, focus primarily the school. The teacher's role will be emphasized regarding the prevention and promotion of healthy behavior. It will also include the discussion of social problems and its implications (sexual deviation school vandalism, etc). The emphasis will be on skills that help the students to deal in assertive way with the situation happens in the classroom.

EDFU 4115. COUNSELLING AND ORIENTATION FUNDAMENTS. Three credits. Three hours of lecture per week.

The emphasis will be on counseling and orientation fundaments that enable the health teacher in his/her relationship with the students. It will analyze and discuss the counselor's theories as its strategies methods, and techniques that the teacher should use. Specific themes are: communication, self esteem, kind of behaviors, empathy, rapport, making decision, crisis intervention, high risk behavior, the characteristic of a good counselor propitious atmosphere for the intervention, a help process model, interviews, assessment, confidence reports, and school's team work.

EDIN 3005. PRINCIPLES/PRACTICES OF INDUSTRIAL/VOCATIONAL EDUCATIONAL. Three credits. Three hours of lecture per week.

An analysis of the objectives governing the operation of the various types of vocational education programs.

EDIN 3006. SPECIAL METHODS IN INDUSTRIAL EDUCATION. Three credits. Three hours of lecture per week.

Practices in the techniques of analysis, determination of curriculum, content and preparation of instruction sheets in industrial vocational education.

EDIN 3029. COOPERATIVE PROGRAMS IN OCCUPATIONAL TRAINING. Three credits. Three hours of lecture per week. Pre-requisite EDIN 3005, EDIN 3006

Organization, administration and evaluation of a cooperative training program.

EDIN 4005. TEST AND MEASUREMENT FOR INDUSTRIAL EDUCATION. Three credits. Three hours of lecture per week.

A course designed to develop knowledge of the relationship between scientific evaluation and effective teaching in industrial and vocational education. The content of the course covers the essential principles of psychometrics as applied to shop course; the construction, administration, interpretation, and application of achievement, performance and aptitude tests; the organization and presentation of evaluative data; and the conversion of raw scores to letter of standard grades as used in the school system of Puerto Rico.

EDIN 4006. LABOR RELATIONS. Three credits. Three hours of lecture per week.

Development of the labor movement organized labor and its relationships to industry and school. Labor legislation and its applications in Puerto Rico.

EDIN 4029. SHOP ORGANIZATION AND MANAGEMENT. Three credits. Three hours of lecture per week.

A course designed to offer an opportunity for the discussion of problems related to shop organization and management. Includes practice and procedures in the field of industrial education, types of shop organization, layouts and housing, light, ventilation equipment, supplies, inventories and requisitions, community needs, records and reports, safety practices; organization of activities, student control, and other shop administrative problems in vocational industrial education.

EDIN 4035. INDUSTRIAL SAFETY AND OCCUPATIONAL HEALTH. Three credits. Three hours of lecture per week. Pre-requisites: EDIN 3005, EDIN 4029

Discussion and analysis of the basic principles related to industrial safety and health, and its relation to the teaching of vocational industrial education.

EDIN 4065. CURRICULUM MODIFICATION AND TEACHING STRATEGIES FOR TEACHING INDUSTRIAL VOCATIONAL EDUCATION EXCEPTIONAL. Three credits. Three hours of lecture per week. Pre-requisite: EDES 4006

Curriculum modifications and teaching strategies appropriate for teaching industrial vocational education to exceptional adolescent.

EDPE 3305. EARLY CHILDHOOD EDUCATIONAL PROGRAM I. Three credits. Three hours of lecture per week. Pre-Requisite: EDFU 3002

History and philosophy of preschool education considering various preschool programs and their educational techniques (Head Start Montessori and others). Includes information and aspects to consider in the creation, organization, establishment and administration of preschool program.

EDPE 3306. EARLY CHILDHOOD EDUCATION PROGRAM II. Three credits. Three hours of lecture per week. Pre-requisite: EDPE 3305

Organization, study and analysis of the preschool level curriculum by covering subject areas such as: language arts, mathematics, science, health, creative expression: art, music, and movement; the social studies and the development of values as learning means for the cognitive, psychomotor and affective development the preschool child, also reinforces and develops his social interaction and his emotional strength. It also requires field experiences-observation in

the educational laboratory of the educational sciences at the C.U.T.B and/or other nearby centers.

EDPE 3308. PRESCHOOL CHILDREN EDUCATION. Three credits. Three hours of lecture per week. Pre-requisite: EDPE 3306

Study and analysis of preschool teacher work, personal and professional characteristics and their influences towards the behavior, development and teaching-learning process of the child. It provides a framework of the educational methods, techniques, and strategies, evaluation process and the professional applicability of the curriculum areas at the preschool level. It requires experience at the educational laboratory of science.

EDPE 3315. READING AND WRITING READINESS. Three credits. Three hours of lecture per week. Pre-requisites: EDPE 3102, EDFU 3005

Explorations into the nature of language, the importance of the native language as a means of effective oral and written expression and the understanding of how linguistics and semantics contribute to children's speaking, written and listening, and the relation with the growth and the development of language skills, giving emphasis on the preschool level. Studies the progressive instruction of the various phases of Reading and writing methods, techniques, classroom organization and management by levels.

EDPE 3317. CHILDREN LITERATURE. Three credits. Three hours of lecture per week. Pre-requisites: EDPE 3305, ESPA 3102

Study and analysis of children's literature, its characteristics, kinds that compose the methodology and appropriate techniques in order for the child to acquire linguistic skills that help them express their thoughts and emotions with property and correction.

EDPE 3326. RHYTHM AND MOVEMENT FOR THE DEVELOPMENT OF SENSORY. Three credits. Three hours of lecture per week.

The course will provide information about the needs, values, concepts and curriculum contents necessary for the teaching of physical education in the pre-school level. Principles and sequence of the development of the perceptual motor skills of the pre-school age are emphasized to Schedule motor and rhythm activities to develop the perceptual, motor and physical science.

EDPE 4059. METHODOLOGY IN THE TEACHING OF BUSINESS SUBJECT. Three credits. Three hours of lecture per week.

This course will prepare the students in the methodology of teaching business subjects and will reinforce the cognitive, affective and motor skills. Studies of theories, general procedures in teaching development, selecting and preparing teaching materials for business subjects will be discussed. Various forms of evaluating student's progress will be integrated into the necessary elements in the development of necessary skills in this process.

EDPE 4070. STUDENT TEACHING AND TASKS OF THE COOPERATING TEACHING. Three credits. Three hours of lecture per week.

Discussion, analysis, and practice of different strategies related to the tasks implemented by the cooperating teacher during student teaching activities.

EDPE 4205. METHODOLOGY VOCATIONAL INDUSTRIAL EDUCATION SECONDARY SCHOOL. Three credits. Three hours of lecture per week.

Theoretical and practical approach to the teaching-learning process. All aspects related to the teaching of the industrial vocational education in secondary school are studied: Planning, innovative education and curriculum analysis; basic content in this area of specialization; preparation and adaptation and utilization of resources; methodology, teaching techniques and strategies; fundamentals of measurement and evaluation.

EDPE 4276. METHODS, TECHNIQUES AND STRATEGIES FOR THE TEACHING OF SCHOLASTIC HEALTHS. Three credits. Three hours of lecture per week.

Practical and theoretical analysis of the teaching-learning process. Studies the different focuses in the teaching of health at the secondary level. Analyzes the health curriculum to determine the adequate methodologies techniques and/or strategies to use and discusses of demonstrates the same. Laboratory contact hours are required.

EDUC 3025. CURRICULUM AND TEACHING SEMINAR. Three credits. Three lecture hours per week.

In this course, special attention will be given to aspects related to the areas of resource and material specialization, of teaching techniques, and of the teacher's role in relation to the students, the school, and the community. It includes analysis, discussion, and implementation of the middle school curriculum: readings, discussions and exchange of ideas concerning the most adequate methods to approach them.

SPANISH

ESCO 3001. PSYCHOLOGY OF COMMUNICATION. Three credits. Three lecture hours per week. Pre-requisite: ESPA 3102

Business letter writing, its role in business and public relations. Emphasis is given to new writing styles using psychological principles and language as a communication tools within our culture.

ESCO 3002. PSYCHOLOGY OF COMMUNICATION. Three credits. Three lecture hours per week. Pre-requisite: ESPA 3101

A continuation of ESCO 3001. Business letter writing, its role in business and public relations. Emphasis is given to new writing styles using psychological principles and language as a communication tool within our culture.

ESCO 3005. COMPOSITION PRINCIPLES & BUSINESS DOCUMENTS. Three credits. Three lecture hours per week. Pre-requisite: ESPA 3102

Review on spelling, punctuation, capitalization and style. Study of negotiable documents, merchandising business and the various kinds of administrative and business communication.

ESCO 3006. ORAL AND WRITTEN BUSINESS COMMUNICATION IN SPANISH II. Three credits. Three lecture hours per week. Pre-Requisite: ESPA 3005

This course focuses on the study of the methodology and techniques for report writing and its oral presentation. Proposal writing as well as other kinds of business communication are also studied.

ESCO 4005. TECHNICAL REPORT WRITING. Three credits. Three lecture hours per week. Pre-requisite: ESPA 3102.

The objective of this course is to train students in the writing of college level technical reports. In order to achieve this goal, grammar is taught with the purpose of improving orthography and written expression. Further on, efforts are aimed at creating conscience in students of the purpose and characteristics that technical writing style must possess. The rest of the course is centered in

the teaching of different investigation methods and techniques, and how to apply them in the writing of different types of technical reports.

ESPA 0001. PRE BASIC SPANISH I. Three non-degree credits. Three lecture hours per week.

The purpose of the course is to help students who exhibit oral and written linguistic deficiencies in Spanish due to an inadequate integration of the Spanish and English languages. It aims at making the student recognize the basic characteristic elements of Spanish, promoting the learning of the basic skills of the language. This course is not a substitute to any of the Spanish Program courses.

ESPA 0002. PRE BASIC SPANISH II. Three non-degree credits. Three lecture hours per week.

This course aims at improving the linguistic skills of students that evidence deficiencies in the use of Spanish as their first language in the engagement of effective oral and written communication. It focuses its attention on the logical ordering of linguistic discourse. It involves the practice of grammar exercises integrated with the writing process.

ESPA 3015. GRAMMAR AND COMPOSITION. Three credits. Three lecture hours per week. Pre-requisite: ESPA 3102.

The course is of a corrective and practical nature in which the student is introduced to the correct use of the language through the analysis of gramatical and literary themes.

ESPA 3101. BASIC SPANISH I. Three credits. Three lecture hours per week.

The aim of this course is to help the student enrich and improve his command of the Spanish language. Several anthologies of selections which are chosen as models of literary language are used throughout the course. These are supplemented with representative works of the most outstanding Spanish, Latin American, and Puerto Rican authors.

ESPA 3102. BASIC SPANISH II. Three credits. Three lecture hours per week. Pre-requisite: ESPA 3101

The aim of this course is to help the student enrich and improve his command of the Spanish language. Several anthologies of selections which are chosen as models of literary language are

used throughout the course. These are supplemented with representative works of the most outstanding Spanish, Latin American and Puerto Rican Authors.

ESPA 3201. LITERARY GENRES I. Three credits. Three lecture hours per week.

Pre-requisite: ESPA 3102

A study of the development and techniques of literary genres through the analysis of works by representative authors. Includes the study of the narrative.

ESPA 3202. LITERARY GENRES II. Three credits. Three lecture hours per week.

Pre-requisite: ESPA 3201

A study of the development and techniques of literary genres through the analysis of works by representative authors includes the study of the literary forms of drama, poetry and essay.

ESPA 3211. INTRODUCTION TO SPANISH LITERATURE I. Three credits. Three lecture hours per week. Pre-requisite: ESPA 3102

A study of literary movement, authors and representative works of Spanish literature from the middle ages to the renaissance in the first semester, and from the golden age to the present in the golden age to the present in the second semester.

ESPA 3212. INTRODUCTION TO SPANISH LITERATURE II. Three credits. Three lecture hours per week. Pre-requisite: ESPA 3111

A study of literary movements, authors and representative works of Spanish literature from the middle ages to the renaissance in the first semester, and from the golden age to the present in the second semester.

ESPA 3291. SPANISH GRAMMAR I. Three credits. Three lecture hours per week. Pre-requisite: ESPA 3102.

A descriptive study of the morpho-syntactical aspects of the Spanish language, beginning with simple sentence structure and including the study of coordination and subordinating. Analysis of texts which illustrate the different linguistic levels and their values.

ESPA 3292. SPANISH GRAMMAR. Three credits. Three lecture hours per week. Pre-requisite: ESPA 3291

Second semester of Spanish grammar in which students continue with the study of morphology and syntax.

ESPA 4231. PUERTO RICAN LITERATURE I. Three credits. Three lecture hours per week. Pre-requisite: ESPA 3102

A study of principal authors of Puerto Rican Literature from its beginnings to the present.

ESPA 4232. PUERTO RICO LITERATURE II Three credits. Three lecture hours per week. Pre-requisite: ESPA 4231

A study of principal authors of Puerto Rican Literature from its beginnings to the present.

HUMANITIES

ARTE 3115. ART APPRECIATION. Two credits. Two lecture hours per week.

A study of general concepts in of the fine arts, based on a thematic and formal approach.

ARTE 3116. GENERAL HISTORY OF WESTERN ART-CONDENSED. Three credits. Three lecture hours per week.

Panoramic view of western art from the prehistoric times to the present.

ARTE 3118. PUERTO RICAN ART. Three credits. Three lecture hours per week.

Architecture and the fine arts in Puerto Rico from the 16th century to the presents.

ARTE 3125. DRAWING I. Three credits. Three lecture hours per week.

Techniques of drawing and composition using a variety of media and concentrating on still life and the human figure.

ARTE 3135. BASIC PAINTING. Three credits. Four lecture hours per week.

Introduction to the basic elements of painting and the principles of composition using oils and acrylics. Free theme and forms.

FILO 3001. INTRODUCTION TO PHILOSOPHY. Three credits. Three lecture hours per week. Pre-requisite: HUMA 3101

Introduction to philosophical method; main problems and questions throughout the history of philosophy; an examination of the relationship between philosophy and other subject and activities; and a look at the social and existential conditions that generate the philosopher's activity.

FILO 3005. ETHICS. Three credits. Three lecture hours per week.

Pre-requisite: HUMA 3102

Analysis of the fundamental problems of ethics: The nature of moral and ethics, (the principles of) responsibility and moral obligation. Act and moral conduct. Axiological and ethical values and theories.

FILO 4028. BIOETHICS. Three credits. Three lecture hours per week.

Problems related to the advancement in Biomedic science and technology. Case studies.

FILO 4031. LOGIC I. Three credits. Three lecture hours per week.

Principles of modern and traditional logical reasoning, deductive and inductive inference, Aristotelian syllogistic, truth functions and quantification theory. Analysis of reasoning and discernment of sophisms. The relation between logic mathematics and empirical science.

FILO 4471. PHILOSOPHY OF SCIENCE I. Three credits. Three lecture hours per week.

Introduction to the main problems of the philosophy of science. The nature of laws in the empirical science; explanation and prediction; verification and falsification; the problem of induction, hierarchy in theories and laws, and reduction of theories.

FRAN 3191. INTENSIVE ELEMENTARY FRENCH. Four credits. Five lecture hours per week. Co-requisite: FRAN 3193

The study of the basic grammatical, oral and written aspects of the French language through the use of direct, intensive methods and the participations of the student.

FRAN 3192. INTENSIVE ELEMENTARY FRENCH II. Four credits. Five lecture hours per week. Pre-requisite: FRAN 3191. Co-requisite FRAN 3194

Continuation of the course French 3191.

FRAN 3193. FRENCH PRACTICE I. No credit. One hour of practice per week.

Practice for FRAN-3191.

FRAN 3194. FRENCH PRACTICE II. No credit. One hour of practice per week.

Practice for FRAN-3192.

HIST 3111. HISTORY OF THE UNITED STATES OF AMERICA. Three credits. Three lecture hours per week.

A census of the history of the United States from the beginnings of colonization in the seventeenth century to the civil war. Social, political and cultural development will be studied in order to understand the events that led to the American revolution, the founding of the republic, the rapid growth of the nineteenth century, and the events leading to the civil war in 1861.

HIST 3112. HISTORY OF THE UNITED STATES OF AMERICA. Three credits. Three lecture hours per week.

Historical development of the United States of America from the reconstruction period to the present, with emphasis on the impact of economic and social forces on national policies.

HIST 3165. HISTORY OF THE RENAISSANCE. Three credits. Three lecture hours per week. Pre-requisite: ESPA 3102

The renaissance as threshold to the modern world in its social, political, economic and cultural aspects. The religious crisis which was initiated in the sixteenth century until the peace of Westphalia, and following this, the manifestation of the two great currents of the modern state; monarchical absolutism exemplified in France, and the English model: the parliamentary system. The European intellectual revolution up to the eighteenth century.

HIST 3205. PROBLEMS OF THE CONTEMPORARY WORLD. Three credits. Three lecture hours per week.

The intention of this course is to show the remote origins of the principal problems and conflicts of contemporary history. Therefore, for the example, we will study the mechanisms of underdevelopment, the Israeli-Palestinian conflict, the great revolutions, the cold war, etc. Due to the impossibility of exhausting the interminable list of problems of the twentieth century, principal emphasis will fall upon the clarification of concepts and the development of a historic vision to overcome the episodic and journalistic concept of the contemporary conflicts.

HIST 3211. SPANISH AMERICAN HISTORY. Three credits. Three lecture hours per week.

Approach to the Hispanic American colonial world, especially the areas conquered by Spain. A vision of the geographical and cultural environment of Pre-Columbian American will be provided as a point of departure for the course. Major emphasis will be given to the process of discovery colonization and conquest, to be followed by an analysis of colonial society and institutions up to the eighteenth century.

HIST 3212. SPANISH AMERICAN HISTORY. Three credits. Three lecture hours per week.

General vision of the historical development of Hispanic America from the beginning of the nineteenth century up to the present special importance will be given to the emancipation stage in the first third of the nineteenth century, as well as to the nineteenth century, as well as to the comparative study of the historic process of different independent states up to the present in conjunction with their economic and socio cultural evolution and their relation with the outside world.

HIST 3219. LATIN AMERICAN HISTORY COMPENDIUM. Three credits. Three lecture hours per week.

The purpose of this course is to study the history of Latin American from the Pre-Hispanic period to the present. Emphasis to the study of the Hispanic America, but some attention to the American Portuguese. In general terms, pre Hispanic America in European history begins during the modern age to provide a vision of the situation that prevails in both roles in the years previous to discovery. Special attention will be given to the process of discovery, exploration, and conquest, to the political, economical and social situation that existed in Latin America during the dynasty of Hapsburg and Borbon, the world of independence to different forces and factors that molded the different regions during XIX and XX century and have determined the present conditions.

HIST 3241. HISTORY OF PUERTO RICO I. Three credits. Three lecture hours per week.

Historical evolution of Puerto Rico from its origins in Pre-Columbian times to the present.

HIST 3242. HISTORY OF PUERTO RICO II. Three credits. Three lecture hours per week.

History of Puerto Rico from the second half of the nineteenth century to the present.

HIST 3245. HISTORY OF PUERTO RICO CONDENSED. Three credits. Three lecture hours per week.

The objective of this course is to provide the student with a general vision of our history up to and including the twentieth century. The course covers Pre-Columbian cultures and an analysis of the Spanish period in the area of politics, population, military aspects and economics from the beginning to the present.

HUMA 3005. STUDY TRAVEL. Three credits.

The student will experience first-hand the culture, geography, social structure and idiosyncrasies of the countries visited. The knowledge acquired will be used in the theoretical

part of the course. If the student decides to take the trip without the theoretical course (HUMA-3006) will be administer two partial test on previously chosen topics and will require that the student write a monograph on a topic related to the trip. If these requirements are met, the student will be granted three credits.

HUMA 3006. DISCUSSION OF TRAVEL STUDY HUMA 3006 THEORY OF STUDY TRAVEL. Three credits. Pre-requisite: HUMA-3005.

A discussion of the countries visited. The following topics will be discussed in each unit: a) Physical, political and economical geography; b) History, art and cultural, c) Social organization and information about the folklore the didactic materials and bibliography for these units will be provide using traditional and non-traditional methods.

HUMA 3031. MUSEUM AND CULTURE I. One credit. Twenty lecture hours per semester.

Appreciation of art works and participation in cultural activities through assistance to painting and sculpture exhibits, concerts, artistic and literary presentation offered by the Ponce Art Museum.

HUMA 3032. MUSEUM AND CULTURE II. One credit. Twenty lecture hours per semester.

Study of art works and analysis of cultural activities through participation in exhibits and concert, artistic and literary presentation offered by the Ponce Art Museum. Critical study of the content of presentation in relationship with University Studies, world history, art and music within the context of the modern world.

HUMA 3035. THE PLACE OF PONCE IN PUERTO RICO'S REALITY. Three credits. Three lecture hours per week.

An integrated view of the factors and aspects that have configured this city into a kind of unit it has been along three centuries, the role it plays in Puerto Rico's reality and the possibilities that lie in its future.

HUMA 3101. WESTERN CULTURE I. Three credits. Three lecture hours per week.

Critical reflection on the most important fundamental aspects of western culture, from the perspective of diverse humanistic discipline such as art, history, literature, philosophy and religious thought the analysis of the most significant works and original texts, with a particular emphasis on ancient Greece and its relationship with the present.

HUMA 3102. WESTERN CULTURE II. Three credits. Three lecture hours per week.

Critical reflection on the most important fundamental aspects of western culture, from the perspective of diverse humanistic discipline such as art, history, literature, philosophy and religious thought the analysis of the most significant works and original texts, with a particular emphasis on ancient Rome, the origins of Christianity and the transition from the Hellenistic era to the middle ages and their relationship with the present.

HUMA 3105. SOCIO-JURIDICAL FOUNDATION OF WESTERN CULTURE. Three credits. Three lecture hours per week.

Critical reflection from the humanistic perspective on the foundation of Western Culture. Special attention will be given to ethical, juridical and political characteristics. Fragments chapters of the original works and texts of the following periods will be analyzed: Mesopotamian, Hebrew, and Greek, Roman and Medieval Christians and their relationship with the contemporary world.

HUMA 3111. COMPENDIUM STUDY OF WESTERN CULTURE 1-2. Three credits. Three lecture hours per week.

Critical analysis of the foundational elements of western cultures, from the diverse perspectives of such humanistic disciplines as art, history, literature, philosophy and religion. We will study in their historical contexts and in works and texts from Greek, Roman, Hebraic, and Medieval Cultures.

HUMA 3112. INTRODUCTION STUDY TO WESTERN CULTURE. Three credits. Three lecture hours per week. Pre-requisite: HUMA 3111

Critical analysis of the foundational elements of Western Cultures, from the diverse perspectives of such humanistic discipline as art, history, literature, philosophy and religion. We will study in their historical contexts the most significant works and texts from the renaissance to the modern period.

HUMA 3201. WESTERN CULTURE III. Three credits. Three lecture hours per week. Pre-requisite: HUMA 3102.

Critical reflection on the Western Culture process from the Middle Ages to the Renaissance emphasizing the areas of literature, philosophy, arts, history and religious thought, through an analysis of the most representative works and texts from these periods and their relationship with the contemporary world.

HUMA 3202. WESTERN CULTURE IV. Three credits. Three lecture hours per week. Pre-requisite: HUMA 3201

Critical reflection on the western cultural process from the eighteenth century to the presents, emphasizing the areas of literature, philosophy, art, history and religious thought and analysis of the most representative works and texts from these periods.

MUSI 3141. BAND TECHNIQUES I. Two credits. Three lecture hours per week.

Improvements of individual instruments techniques; advances theory, concerts, toccatas and military parades.

MUSI 3142 BAND II. Two credits. Three lecture hours per week.

Pre-requisite: MUSI 3141

Improvements of individual instrument technique, advances theory, concerts, toccatas and military parades.

MUSI 3143 BAND II. Two credits. Three lecture hours per week.
Continuation of MUSI 3142

MUSI 3144 BAND II. Two credits. Three lecture hours per week.
Continuation of MUSI 3142

MUSI 3170. FUNDAMENTALS OF MUSIC. Three credits. Three lecture and practice hours per week.

The fundamentals of music include the development of the aural ability of the rhythmic and melodic skills, and of intone music reading. It also deals in depth with musical elements such as: timbre, dynamics, texture and form, and technical knowledge.

MUSI 3201. CHORUS I. One credit. Eight lecture hours per week. Pre-requisite:
Audition.

The class is organized as a mixed voice chorus for a capella singing. Study and performance of choral works in several languages. Secular, religious and folk songs.

MUSI 3202. CHORUS I. One credit. Eight lecture hours per week. Pre-requisite:
Audition.

The class is organized as a mixed voice chorus for a capella singing. Study and performance of choral works in several languages. Secular, religious and folk songs.

MUSI 3203. CHORUS II. One credit. Eight lecture hours per week.

Practical course in reading and interpreting musical works from all epochs, style and movements, organized to be sung by a choir "A Capella."

MUSI 3204. CHORUS II. One credit. Eight lecture hours per week.

A continuation of MUSI 3203.

MUSI 3211. CHORUS III. One credit. Eight lecture hours per week.

Practical course in reading and interpreting musical work from all epochs, style and movements, with emphasis on the interpretation of repertoire appropriate for this level.

MUSI 3212. CHORUS III. One credit. Eight lecture hours per week.

Continuation of MUSI 3211.

MUSI 3225. THE HISTORY OF MUSIC. Three credits. Three lecture hours per week.

The course offers a panoramic view of the musical development in the West from Greek and Roman times to the present. Emphasis is placed on works of the great composers. These are studies as a part of the historical period in which they were created.

MUSI 3227. HISTORY PUERTO RICAN MUSIC. Three credits. Three lecture hours per week.

Pre-Columbian music. European and African contributions; popular traditions; development of typical instruments; development of traditional forms; the music and musicians of the nineteenth century; Romanticism and the musical theatre; the formation of the first musical groups teaching organizations and propagation organizations. The music and musicians of the

twentieth century modernism nationalism and post nationalism. Institutionalized music development of the teaching of music.

MUSI 3235. MUSIC APPRECIATION. Two credits. Two lecture hours per week.

Music as a source of enjoyment through lectures, records and actual playing the student will be exposed to folk and art songs, fugue, sonata, symphony and other forms of musical composition.

MUSI 4071. CHORUS IV. One credit. Eight lecture hours per week.

A continuation of MUSI 3211-3212

MUSI 4072. CHORUS IV. One credit. Eight lecture hours per week.

A continuation of MUSI 4071.

TEAT 3025. THEATER APPRECIATION. Three credits. Three lecture hours per week.

Analysis of the different elements which contribute to making up a theatrical production.

ENGINEERING

INGE 3011. ENGINEERING GRAPHICS 1. Three credits. Three lecture hours and two of laboratory per week.

Underlying principles of the graphic language: fundamentals of delineation, analysis and solution of space problems, symbols and standards as applied to engineering. Freehand drawing. Principles of orthographic projection: points, lines, plane and solids, sections and conventional practices. Pictorial drawings: Axonometric, oblique and perspectives.

INGE 3012. ENGINEERING GRAPHICS II. Two credits. Two lecture hours and two of laboratory per week.

Underlying principles of the graphics language: fundamentals of delineation, analysis and solution of space problems, symbols and standards as applied to engineering, spatial geometry: distances between planes and lines, rotation problems. Introduction to graphical mathematics and nomography.

INGE 3016. ALGORITHMS AND COMPUTER PROGRAMMING. Three credits. Three lecture hours per week. Pre-requisite: MATE 3031

Development of algorithms and their implementation in a structured high level language. Programming techniques applied to the solution of engineering and mathematical problems.

INGE 3031. ENGINEERING MECHANICS-STATICS. Three credits. Three lecture and two hours of laboratory per week. Pre-requisite: MATE 3031. Co-requisites: MATE 3032, FISI 3171

Analysis of force systems, the law of the equilibrium; analysis of simple structures; distributes loads; friction; centroids and moments of inertia.

INGE 3032. ENGINEERING MECHANICS – DYNAMICS. Three credits. Three lecture hours and two of laboratory per week. Pre-requisite INGE 3031, FISI 3171

Kinematics of particles and rigid bodies; relations among force, mass and acceleration, kinetics of particle and rigid bodies, work and energy; impulse and momentum.

INGE 4011. MECHANICS OF MATERIALS I. Three credits. Three lecture and two hours laboratory per week. Pre-requisite: INGE 3031 y MATE 3032

Stresses and strains due to axial, torsional and bending loads; shear and moment diagrams.

TECI 1005. TECHNICAL DRAFTING. Three credits. Three lecture and practice hours of per week.

Fundamental principles of drafting as a means of technical and graphic expression. Includes applied geometry, letter practice, orthographic projection of: Points, line, planes and objects as well as reading of blueprints, analysis and solution of problems by means of orthographic projection, auxiliary views, sections, procedures and practice norms. Also included is pictorial drafting: oblique isometrics, principles of perspective and free hand drafting, dimensions, notes and annotations on details and relates designs.

TECI 1007. BUILDING CONSTRUCT DRAW I. Three credits. Three lecture and practice hours of per week. Pre-requisite: TECI 1005

Application of architectural drawing principles to working drawing for building construction; architectural symbols and conventions; plumbing, electrical and structural drawings; study of typical construction details, such as foundation, walls floors, windows, doors and cornices.

TECI 2001. ARCHITECTURAL DRAFTING I. Three credits. Three lecture and practice hours per week. Pre-requisite: TECI-1007.

Study of the most advanced architectural drafting techniques applied to a one-family residential project in accordance with the regulations of the Puerto Rico planning board. The courses includes the analysis of the functions and aesthetics and the special areas of a residence, including the distribution of furniture, family activity areas, service and rest areas, as well as preliminary sketches, use of reference books, use of templates for architectural symbols and letters also included.

TECI 2002. BUILDING CONSTRUCTION DRAWING III. Three credits. Three lecture and practice hours per week. Pre-requisite: TECI 2001

Development of architectural working drawing for projects such as residential, apartment house, commercial and office buildings; preliminary study of projects; interrelation between owner, designer and the planning board regulations, functional and aesthetic analysis; more advanced perspective drawing, including shades and shadows, individual creativity, professional ethics and rates.

TECI 2003. SOILS AND FOUNDATIONS. Three credits. Three lecture hours per week. Pre-requisite: TECI-2037

Study of the index properties of the soil, soil drainage, consolidation, pressure, stability and compression, including compressibility and foundation and the theory of soil testing.

TECI 2005. SURVEYING I. Three credits. Three lecture and practice hours per week. Pre-requisites: TECI-1005, MATE-1001.

Study of the basic principles of surveying including the use, care and adjustment of instruments. Also included is the study of the level of measurement of distances, direct and differential leveling as well as the transit for the measurement of direction and angles and for the measurement and calculation of areas.

TECI 2006. PLANE SURVEYING TOPOGRAPHY. Three credits. Three lecture and practice hours per week. Pre-requisites: TECI 2005

A continuation of INTE 141. Element of plane and topographical surveying; field problems in traverses; obstructed lines; stadia theory, stadia mapping with transit and plane tables, route surveying topographic surveying and map marking.

TECI 2007. COST ESTIMATION. Two credits. Two hours of lecture per week.

Pre-requisites: MATE-1001, TECI-1007.

Study of the costs of equipment, materials, and labor for different engineering projects such as: buildings, roads, land movement and others.

TECI 2008. REINFORCED CONCRETE. Three credits. Three lecture hours per week. Pre-requisite: TECI-2036.

Study of the theory of reinforced concrete. Includes design of structural elements such as beams, columns, walls, foundations, retaining walls, floors and ceilings.

TECI 2009. AQUEDUCT AND SEWAGE SYSTEM. Three credits. Three lecture hours per week. Pre-requisite: Being a second year student or permission of the Department Director.

Study of the general characteristics of water and its treatment for conversion into drinking water. Also includes the study of the composition of sewage water, it includes the disposal: with field to drinking and sewage water treatment plants.

TECI 2012. MATERIALS TESTING LABORATORY. Two credits. One lecture and three hours per week. Pre-requisite: TECI 2037

Experimental studies of the physical properties of the more common materials used in building and highway construction practice, laboratory work will also cover demonstrations of the physical laws that govern the use of these materials.

TECI 2015. STRUCTURAL STEEL. Three credits. Three lecture hours per week.

Pre-requisite: TECI-2036.

Introduction to structural steel design, including design of beams, small beams, columns and connections with bolts and welding. Also includes the design of the most common structural parts in construction, and the application of engineering principles and formulas.

TECI 2035. CONSTRUCTION MANAGEMENT. Four credits. Four hours of lecture per week.

Study of the methodology utilized in the performance, supervision and inspection of construction projects. Format of a construction project, organization of a construction company

and the duties of management. Actions, kinds of contracts, specifications and plans, quality control, security and others are discussed.

TECI 2036. STATISTICS. Five credits. Three hours of lecture and two of discussion per week. Pre-requisite: MATE-1001. Co-requisite: FISI-1001.

Study of the essential concepts and definitions of statistics, including the analysis of force and force system, center of gravity, moment of inertia and radius of rotation, equilibrium and analysis of structural strength.

TECI 2037. CONSTRUCTION PROCESS AND MATERIAL. Four credits. Four hours of lecture per week.

Study of construction materials and processes. Includes selection of materials, soils, work sites, foundations and pavements concrete, wood and related products, masonry and alloys, acoustic materials, ceilings, walls and floors. Also included are materials, equipment, accessories, finishes and mechanical and electrical equipment.

TECI 2045. SOILS AND PAVEMENTS. Two credits. Two lecture hours per week.

Pre-requisite: TECI 2037.

Introduction to the study of the index properties of soils. Types of soils, mass-volume relations, classifications, humidity content, compaction and settling. Study pavement materials and designs. Sub-grade, granular and stabilized bases. Asphalt surfaces.

TECI 2046. ARCHITECTURAL MODELS. Two credits. One hour of lecture and three laboratory hours per week.

Study of the techniques necessary for the construction of architectural models, including analysis of tools and material (traditional and contemporary) used in the construction of models based on blueprints. Emphasis will be given to the study and planning of models, equipment, materials and methods used in the construction of models, as well as to the representation of materials and elements in the models.

TECI 2047. INTRODUCTION TO GEOMETRIC DESIGN OF HIGHWAY. Two credits. Two lecture hours per week. Pre-requisite: TECI 2005.

Study of the geometric design of highways, transportation systems; study of routes, circular curves, compound curves, horizontal and vertical parabolic curves. Earth movement, study of base and subbase, compaction, gradients and mass diagrams.

TECI 2049. INTRODUCTION TO COMPUTER SYSTEM. Two credits. Two hours of lecture and one of demonstration per week. Pre-requisite: MATE-1001.

Description and used of computer languages applicable to civil engineering technology. Emphasis will be given to the solution of technical problems related to the design and construction of structures using software available on the market.

TECI 2057. COMPUTER AIDED DRAFTING (BASIC CAD). Two credits. Two lecture and supervise drafting hours per week. Pre-requisite: TECI 1005.

A fundamental course in computer aided drafting, using cad hardware to produce engineering and architectural drawings.

TIIN 1005. INDUSTRIAL ORGANIZATION. Three credits. Three lecture hours per week.

Principles of industrial management. Includes production, management, mechanization, specialization, structure and control of an organization, manufacturing methods and facilities, purchases, sales, marketing, wages, budget control costs and administration.

TIIN 1008. ENGINEERING MATERIALS. Three credits. Three lecture and demonstration hours per week..

An introduction to the engineering materials used in industry; their application and properties. An explanation of the manufacturing process which materials are subjected. Tests, demonstrations to determine the characteristics and properties of materials and the effects of certain treatments on these properties.

TIIN 1015. INDUSTRIAL SECURITY. Three credits. Three lecture hours per week.

Pre-requisite: TIIN 1005.

A discussion of the factors that affect the safety on an industrial operation. Accident prevention; safety as a working tool; how to create awareness for safety; accident cost and control; safety programs.

TIIN 2005. INDUSTRIAL SUPERVISION. Three credits. Three lecture hours per week

Pre-requisite: TIIN 1005.

How to supervise office employees and production workers. The art of communicating with subordinates. How to obtain a larger production and better quality from subordinates. How to delegate responsibilities, establish discipline and maintain good worker-employee relations.

TIIN 2009. QUALITY CONTROL. Three credits. Three lecture hours per week.

Pre-requisite: MATE 3015 or ESTA 3001.

A basic approach to the analysis of quality control, for persons not experienced in the field. Includes basic information of statistical formulas and diagrams used for quality control. includes sample inspection techniques and the preparation and interpretation of central graphs. The relationship between theoretical concepts and manufacturing process will be established.

TIIN 2010. METHODS DESIGN. Four credits. Three lecture hours per week.

Pre-requisite: MATE 1001. Co-requisite: TIIN 2020

This course is designed to help students figure out the most efficient work method. The different types of graphs used in methods analysis are studied.

TIIN 2011. WORK MEASUREMENT. Three credits. Two hours of lecture per week.

Pre-requisites: TIIN 2010, MATE 1001. Co-requisite: TIIN 2021

The different techniques used in industry to measure the time required for a specific task are studied. Techniques such as: time study, predetermined time systems, work sampling, standard data, etc. The use of standard time in formulating incentive plans is also studied.

TIIN 2015. PRODUCTION CONTROL. Three credits. Three lecture hours per week.

Pre-requisites: MATE 1001, MATE 3015.

An introduction to the necessary controls for coordinating and regulating handling of materials in industry. It includes the principle goals, norms and procedures of production control; the

elements and practical application of production control. Incoming materials, shipments, storage, planning, follow-up and inspection are discussed.

TIIN 2016. ACCOUNTING FOR ENGINEERS. Four credits. Three lecture hours per week. Co-requisite: TIIN 2026

Introduction to the use of accounting in engineering management. It starts by describing the different tools of engineering applicable to accounting (financial statements, profit and loss statements) and goes on to emphasize how these supply information to the engineer in order to control production quality, safety and decision-making at top management levels. The course is designed for students with no formal background in accounting that need to know the relationship between engineering and accounting. This course gives the student the opportunity to work with the accounting theory and apply it to the engineering management problems during class discussion and preparation of projects. It exposes the technician to the basic concepts of accounting necessary to interpret and use financial documents in making decisions related to alternatives in production.

TIIN 2017. INDUSTRIAL ECONOMY. Three credits. Three lecture hours per week.

Pre-requisite: MATE 1001

The application of basic economic analysis to the decision-making process at management level. The study of demand, costs, profit analysis, price discrimination and capital budget.

TIIN 2018. PLANT LAY-OUT. Four credits. Three lecture hours per week.

Pre-requisite: TECI 1005. Co-requisite: TIIN 2028

Planning and location of industrial building considering the process handling of materials, transportation and type of industry. Selection and arrangement of production machinery, manufacturing process and production flow, line balance, flexibility and production line operation.

TIIN 2020. METHOD DESIGN PRACTICUM. No credit. Three hours per week.

Taken concurrently with TIIN 2010.

Application of techniques studied in the method design applied to real life problems. Students will be presented with real situations and asked to make recommendation in basis of the theories studied.

TIIN 2021. WORK MEASUREMENT PROJECT. No credit. Three practice hours per week. Taken concurrently with TIIN 2011.

Practice in the different techniques used in industry to determine the time required to perform a task. Application of the techniques of work measurement by using chronometers, time study machines, predetermined time systems, work sampling and standard data.

TIIN 2026. ACCOUNTING PRACTICUM FOR ENGINEERING. No credit. Three lecture hours per week. Taken concurrently with TIIN 2016.

Discussion of accounting exercises and their application to engineering issues. Typical cases are studied and analyzed.

TIIN 2028. PLANT DISPLAY PROJECT. No credits. Three practice hours per week. Taken concurrently with TIIN 2018.

Simulated as well as real situations are studied. Research projects and improvement proposals are carried out in which the majority of the concepts related to industrial engineering are incorporated.

ENGLISH

INCO 3005. BUSINESS ENGLISH I. Three credits. Three lecture hour per week.

Pre-requisite: INGL 3102 or INGL 3104

Course designed for students in the business administration and secretarial science programs. Provides training in effective written business communication in English. Special attention is given to the logical and psychological processes governing the process of writing business letters.

INCO 3006. BUSINESS ENGLISH II. Three credits. Three lecture hour per week.

Pre-requisite: INCO 3005

Study of the fundamental elements, principles and practices underlying business communication. Attention is given to the logical creative process involved in effective writing special emphasis is given to business correspondence.

INCO 3025. CONVERSATIONAL ENGLISH FOR SECRETARIES. One credit. Two lecture hour per week. Pre-requisite: INCO 3102 or INGL 3104.

This course has been designed for students seeking an associate degree in secretarial sciences. Practice is provided to develop the student's ability to communicate orally in situations relevant to office routines.

INCO 4006. REPORT WRITING. Three credits. Three lecture hour per week. Pre-requisite: INCO 3006.

Training in the fundamentals techniques of business communications through written reports. Special attention is given to the procedures employed in writing an objective well organized factual report; the classification of reports; and research methods. The actual writing of the short analytical report is required.

INCO 4035. BUSINESS TRANSLATION. Two credits. Two lecture hours per week.

Pre-requisite: INCO 3032 or INCO 3006

This course is designed to develop skills in the techniques used in Spanish/English and English/Spanish translations. Emphasis is given to vocabulary, idioms, and structure of both languages as they apply to business, with special emphasis in the style and tone of the business letter.

INCO 4055. ADVANCED CONVERSATIONAL ENGLISH. One credit. Two lecture hours per week. Pre-requisite INCO 3025.

This course is designed for students in the Office Systems Program. Students are given training in oral-aural skills. Special attention is given to developing vast vocabulary are includes, clichés and idiomatic expressions. Stress and intonation are also emphasized throughout the course.

INGL 0080. PRE-BASIC ENGLISH. Three credits. Pre-requisite: 450 or less in CEEB (English)

This is preparatory course designed to enable the student to successfully complete their English requirement by developing listening, speaking, reading and writing skills. It also aims to modify students' attitudes toward the learning of English.

INGL 3011. HONOR ENGLISH I. Three credits. Three lecture hours per week.

This course is designed to meet the special needs of those students who show ability in English. It is taken in place of INGL 3201-3202. Analysis of selected reading in the various literary genres, and the composition of essays bases upon these readings.

INGL 3012. HONOR ENGLISH II. Three credits. Three lecture hours per week.

Pre-requisite: INGL 3011.

This course is designed to meet the special needs of those students who show ability in English. It is taken in place of INGL 3201-3202. Analysis of selected reading in the various literary genres, and the composition of essays bases upon these readings.

INGL 3021. ORAL AND WRITING ENGLISH I. Three credits. Three lecture hours per week. Pre-requisite: INGL 3102, 3104 OR 3012

Course designed for future elementary school teachers. Its major objective is to develop correctness and fluency in oral and written English.

IINGL 3022. ORAL AND WRITTEN ENGLISH II. Three credits. Three lecture hours per week. Pre-requisite: INGL 3021

Continuation of the English 3021 course.

INGL 3101. BASIC COURSE IN ENGLISH. Three credits. Three lecture hours per week. Pre-requisite: 451+ IN CEEB (ENGLISH) OR ENGLISH 0080 (PRE-BASIC); 471+ IN RUM.

This course integrates the four language skills: listening, speaking, reading, and writing while developing student vocabulary and grammatical structures.

INGL 3102. BASIC ENGLISH II. Three credits. Three lecture hours per week. Pre-requisite: INGL 3101

This course integrates the four language skills: listening, speaking, reading, and written while developing student vocabulary and grammatical structures.

INGL 3103. INTERMEDIATE ENGLISH I. Three credits. Three lecture hours per week. Pre-requisite: 650+ IN CEEB (ENGLISH)

Analysis of selected readings, such as essay, fiction, poetry or drama and practice in writing with attention given as needed to grammar and idiomatic expressions.

INGL 3104. INTERMEDIATE ENGLISH II. Three credits. Three lecture hours per week. Pre-requisite: INGL 3103

Continuation of analysis of selected readings, such as essay, fiction, poetry or drama and practice in writing with attention given as needed to grammar and idiomatic expressions.

INGL 3113. BASIC ENGLISH LABORATORY I. No credit. One lecture hour per week. Co-requisite: INGL 3101

Basic English (3101) Laboratory.

INGL 3114. BASIC ENGLISH LABORATORY II. No credit. One lecture hour per week. Pre-requisite: INGL 3113. Co-requisite: INGL 3102.

Basic English (3102) Laboratory.

INGL 3116. COMMERCIAL COMMUNICATION COMPENDIUM. Three credits. Three lecture hours per week. Pre-requisite: INGL 3102.

Intensive study of report writing, letter and resume writing motivates the student to speak in order to gain self-confidence in using English a second language.

INGL 3191. INTRODUCTION TO SPEECH COMMUNICATION CONVERSATIONAL ENGLISH. Three credits. Three lecture hours per week. Pre-requisite: INGL 3201.

Corrective speech training to develop fluency and accuracy in conversation, and exercises in the listening-comprehension of spoken English. All integrated with language laboratory practice. In the second semester, special emphasis is given to the study of the speech communication process.

INGL 3201. ENGLISH COMPOSITION AND READING. Three credits. Three lecture hours per week. Pre-requisites: INGL 3102 or INGL 3104.

Practice in writing compositions and making oral reports upon selected readings, including essays, short stories, poems, dramas and novels. Attention will be given as needed to grammar and idiomatic expressions. This course or its equivalent is a requisite for graduation.

INGL 3202. ENGLISH COMPOSITION AND READING. Three credits. Three lecture hours per week. Pre-requisite: INGL 3201 or 3104.

Practice in writing compositions and making oral reports upon selected readings, including essays, short stories, poems, dramas and novels. Attention will be given as needed to grammar and idiomatic expressions. This course or its equivalent is a requisite for graduation.

INGL 3205. GRAMMATICAL CHARACTERISTICS OF MODERN ENGLISH. Three credits. Three lecture hours per week. Pre-requisites: INGL 3102 OR 3104.

Parts of speech, clauses, phrases, word order, punctuation.

INGL 3221. INTRODUCTION TO LITERATURE I. Three credits. Three lecture hours per week. Pre-requisite: INGL 3102 OR 3104.

Analytical and appreciate reading of short stories, novels and essays.

INGL 3222. INTRODUCTION TO LITERATURE II. Three credits. Three lecture hours per week. Pre-requisite: INGL 3102 and 3221.

Continuation of the course ENGL 3221. Analysis and appreciation of drama and the novel. Oral and written practice on the genres studied in class and related topics.

INGL 3227. PHONETICS OF AMERICAN ENGLISH. Three credits. Three lecture hours per week. Pre-requisites: INGL 3221 AND 3104.

Techniques of correct pronunciation, rhythm, and intonation, with considerable practice in oral English throughout the semester. Special attention is given to the aspects of American English which are particularly difficult for Spanish-speaking students. Practice in phonetic transcription. Speech laboratory practice required.

INGL 3231. ADVANCED COMPOSITION I. Three credits. Three lecture hours per week. Pre-requisite: INGL 3102 OR 3104.

Topics with emphasis on expository writing; note-taking precise writing, answers to discussion-type examination questions, book reports. Research paper during second semester. Regularly scheduled individual conferences.

INGL 3251. AMERICAN (U.S.) LITERATURE I. Three credits. Three lecture hours per week. Pre-requisites: INGL 3102 OR 3104.

Critical study of the development of American Literature from the colonial period to the present. Analysis of representative works will be complemented by the discussion of the political, social and economic backgrounds which they reflect.

INGL 3252. AMERICAN LITERATURE II. Three credits. Three lecture hours per week. Pre-requisite: INGL 3103 OR 3104.

Study of the development of American Literature from the colonial period to the present. Analysis of representative works will be complemented by the discussion of the political, social and economic backgrounds which they reflect.

INGL 4021. TECHNICAL REPORT WRITING FOR BIOLOGY. Three credits. Three lecture hours per week. Pre-requisites: INGL 3102 OR 3104.

Introduction to technical report writing. Designed to provide students the skills for writing reports that require research on topics to biology. The analysis of scientific articles from journals and magazines will be emphasized.

INGL 4205. INTRODUCTION TO LINGUISTIC THEORY. Three credits. Three lecture hours per week. Pre-requisite: ENGLISH 3227

Contemporary linguistic theory, with particular attention to English. Pre-requisite in CUC; 12 credits in English or second year, honors students.

INGL 4235. STRUCTURE/SYNTAX ANALYSIS OF ENGLISH & SPANISH.

Pre-requisite: ENGLISH 4325

Comparative analysis of the syntactic, semantic, phonological and lexical structures of English and Spanish. Identification, summarization and explanation of the nature and origin of different types of errors common among students of English as a second language. Analysis of samples of oral and written English.

INGL 4326. CHILDREN'S LITERATURE. Three credits. Three lecture hours per week. Pre-requisite: INGL 3252

The study and analysis of the role of literature in child development. Introduction to the methods, techniques, materials and activities essentials for good elementary school level reading program. Emphasis will be given to the criteria for evaluating literature that will introduce children to the world of books.

MATHEMATICS

MATE 1001. TECHNICAL MATHEMATICS I. Four credits. Four lecture hours per week.

Includes the study of exponents and radicals operations with polynomials, algebraic fractions, solution of linear and quadratic equations, systems of equations, algebraic and trigonometric functions and their applications.

MATE 1002. TECHNICAL MATHEMATICS II. Four credits. Four lecture hours per week. Pre-requisite: MATE 1001.

Includes exponential and logarithmic functions, calculations with logarithms, determinants, matrices and their applications complex numbers, polar coordinates, sequences, arithmetic and geometric progressions, lines, circles and the study of conics.

MATE 3001. INTRODUCTORY MATHEMATICS I. Three credits. Three lecture hours per week.

Elements and radicals. Polynomials and rational expressions. Elementary functions and their graphs. Equations and inequalities. Systems of linear equations. Quadratic equations.

MATE 3005. PRE-CALCULUS. Five credits. Five lecture hours per week.

A preparatory course for the calculus covering the essentials of relations, functions, complex numbers, linear algebra, trigonometry and analytic geometry.

MATE 3011. QUANTITATIVE METHODS I. Three credits. Three lecture hours per week.

Includes basic notions about the set theory, numerical systems equations with absolute value, relations and functions; domain and range; elementary algebraic functions and their properties, graphs and zeroes; algebra of functions and composition of functions, linear functions and their applications systems of linear equations, linear inequalities in two variables, quadratic equations and quadratic functions, summation, the binomial theorem; polynomial function, synthetic

division, remainder and factor theorems, zeroes of polynomial and graphs. Complex numbers system and basic operations.

MATE 3012. QUANTITATIVE METHODS II. Three credits. Three lecture hours per week. Pre-requisite: MATE 3011

Include matrix and matrix operations, transformation, determinants, and Cramer's rule, the exponential and logarithmic functions, the properties of logarithms, use of tables, interpolations, calculations with logarithms, natural logarithms, sequences, arithmetic and geometric progressions, simple and compound interest, business math, curve sketching, rational and irrational function, graphs, the circle and its properties, trigonometric, trigonometric functions, graphs of sine, cosine and tangent functions.

MATE 3013. QUANTITATIVE METHODS III. Three credits. Three lecture hours per week. Pre-requisite: MATE 3012.

Review of functions, limits and sequences, differential calculus, introduction to integral calculus and its use in the business field.

MATE 3015. ELEMENTARY STATISTICS. Three credits. Three lecture hours per week. Pre-requisite: MATE 3015.

Descriptive statistics and basic concepts of probability and statistical inference.

MATE 3021. CALCULUS I FOR BIOLOGICAL SCIENCE. Three credits. Three lecture hours per week. Pre-requisite: MATE 3172 o MATE 3005.

A basic course in differential and integral calculus of one real variable, with applications.

MATE 3022. CALCULUS II FOR BIOLOGICAL SCIENCE. Three credits. Three lecture hours per week. Pre-requisite: MATE 3021.

Integration techniques. Probabilities themes, various variables functions. Introduction to differential equations and their applications.

MATE 3026. INTRODUCTION TO STATISTICS WITH COMPUTERS. Three credits. Three lecture hours per week. Pre-requisite or Co-requisite: MATE 3031.

Elementary combinatory. Probability theory. Bayes' Theorem. Descriptive statistics. Random variables. Discrete and continuous sampling distributions. Estimation. Hypothesis testing, correlation and regression. Scientifics programming. Statistical computers packages, computer simulations of random experiments. the student will carry out programming projects in which the concepts of the course are implemented.

MATE 3031. CALCULUS I. Four credits. Four lecture hours per week. Pre-requisite o Pre-requisite: MATE 3005 or MATE 3172.

Elementary differential and integral calculus of one real variable with applications.

MATE 3032. CALCULUS II. Four credits. Four lecture hours per week. Pre-requisite: MATE 3031.

Integration techniques, infinite series, vectors, polar coordinates, vector functions, and quadric surfaces, applications.

MATE 3041. INTRODUCTION TO MATHEMATICS. Three credits. Three lecture hours per week.

Notions of sets theory and logic. Axioms and elementary properties of the real numbers. Linear equations and inequalities. Laws of exponents. Binary and other scales. Introduction to the computer and elementary programming. The course will emphasize an understanding of the methods and philosophy of mathematics.

MATE 3042. INTRODUCTION TO MATHEMATICS II. Three credits. Three lecture hours per week. Pre-requisite: MATE 3041

Functions and graphs. Elements of Euclidean geometry. Measures of area and volume. Elements of probability and statistics. The normal distribution. The course will emphasize an understanding of the methods and philosophy mathematics.

MATE 3063. CALCULUS II. Three credits. Three lecture hours per week. Pre-requisite: MATE 3032

Differential and integral calculus of several variables, and an introduction to differential equations with applications.

MATE 3171. PRE-CALCULUS I. Three credits. Three lecture hours per week.

Properties of the real number system, exponent and radicals inequalities, absolute value, algebraic, exponential, logarithmic and trigonometric functions and their graphs; systems of two linear equations in three unknowns.

MATE 3172. PRE-CALCULUS II. Three credits. Three lecture hours per week. Pre-requisite: MATE 3071

Analytic trigonometry, complex numbers, plane analytic geometry, sequence and mathematical induction.

MATE 4009. ORDINARY DIFFERENTIAL EQUATIONS. Three credits. Three lecture hours per week. Pre-requisite: MATE 3063

Ordinary differential equations of the first order. Linear differential equations with constant coefficients. Linear differential equations of the second order. Systems of differential equations. Applications.

MATE 4031. LINEAR ALGEBRA. Three credits. Three lecture hours per week.

Pre-requisite: MATE 3031 and authorization of the Mathematics Department Director.

Matrix algebra. Determinants. Systems of linear equations. Finite dimensional vector spaces. Linear dependence and independence. Bases. Euclidean spaces. Linear transformations. The matrix of a linear transformation. Similarity transformations. Eigenvectors and eigenvalues. Inner products. Norms. Orthogonal projection. Gram-schmidt orthogonalization.

CHEMISTRY

CIIN 1001. INTEGRATED SCIENCE I. Three credits. Three lecture hours per week.

A study of the fundamental concepts of earth and space science needed for the teaching of modern at an elementary level.

CIIN 1002. LABORATORY INTEGRATED SCIENCE I. One credit. Three lecture hours per week.

This laboratory develops the basic skills in using the lab equipment and materials related to elementary school earth and space science. Emphasis is given to the use of equipment and materials which are easily obtained and inexpensive.

CIIN 3001. INTEGRATED SCIENCE I. Three credits. Three lecture hours per week.

A study of the fundamental concepts of earth and space science needed for the teaching of modern science at an elementary level.

CIIN 3002. INTEGRATE SCIENCE LAB I. Three credits. Three lecture hours per week.

This laboratory develops the basic skills in using the lab equipment and materials related to elementary school earth and space science. Emphasis is given to the use of equipment and materials which are easily obtained and inexpensive.

QUIM 3001. GENERAL CHEMISTRY. Four credits. Three lecture hours per week.

Pre-requisite: QUIM 3003

Fundamental principles of the science of chemistry with emphasis on atomic and molecular structure and chemical equilibrium. The laboratory includes qualitative analysis of cations and anions.

QUIM 3003. GENERAL CHEMISTRY LABORATORY I. None credit. Three lecture hours per week.

This laboratory will complement the topics studied in class. Includes representative experiments for each one of the areas covered in the course.

QUIM 3002. GENERAL CHEMISTRY II. Four credits. Three lecture hours per week.

Pre-requisite: QUIM 3004. Co-requisite: QUIM 3004.

The fundamental principles of chemical science, and the descriptive chemistry of the more common elements and their important compounds. Solution of problems.

QUIM 3004. GENERAL CHEMISTRY LABORATORY II. None credit. Three lecture hours per week.

This laboratory will complement the topics studied in class includes experiments in chemical equilibrium oxidation and reduction reactions, acids and gases, electrochemistry thermodynamics and kinetics.

QUIM 3025. ANALYTICAL CHEMISTRY. Four credits. Three lecture hours per week.
Pre-requisite: QUIM-3002. Co-requisite: QUIM-3026.

The study of the quantitative and qualitative methods of analysis, which chromatography, volumetric analysis, gravimetric analysis, electrochemistry and spectrophotometry. Emphasis is given to the fundamental principles on which these methods are based.

QUIM 3026. ANALYTICAL CHEMISTRY LABORATORY. None credits. Six lecture hours per week.

Training in the quantitative methods of volumetric, gravimetric, electrometric and spectrophotometric analysis. Emphasis in determining unknown samples.

QUIM 3031. ORGANIC CHEMISTRY I. Four credits. Three lecture hours per week.
Pre-requisite: QUIM 3002. Co-requisite: QUIM 3033.

A study of the carbon compound organized by family groups. Includes the theory of spectroscopy analysis as a tool for identifying the structure of organic compounds. Application of these concepts biochemical, environmental and industrial systems.

QUIM 3032. ORGANIC CHEMISTRY II. Four credits. Three lecture hours per week.
Pre-requisite: QUIM 3031. Co-requisite: QUIM 3034

Continuation of the study of carbon compound organized by family groups. Includes the theory of spectroscopic analysis as a tool for identifying the structure of organic compounds application of these concepts to biochemical. Environmental and industrial systems.

QUIM 3033. ORGANICS CHEMISTRY LABORATORY I. None credits. Four lecture hours per week. Pre-requisite: QUIM 3002

Laboratory to complement the course of organic chemistry I.S. student are trained in basic laboratory techniques such as distillation, recrystallization, extraction and chromatography.

QUIM 3034. ORGANIC CHEMISTRY LABORATORY II. None credit. Four lecture hours per week.

Laboratory to complement the course of organics chemistry II. Develops skills in anhydrous reactions, reductions, condensations and substitutions.

QUIM 4055. BIOCHEMISTRY. Three credits. Three lecture hours per week.
Pre-requisites: BIOL 3012, QUIM 3032

A study of the structure and functions of the biological membranes and molecules in living being. Includes the chemical and biological aspects of carbohydrates, lipids, proteins, enzymes, nucleic acids, vitamins and hormones, as well as the integration of the metabolic routs with the control mechanisms of the cell.

QUIM 4058. CHEMISTRY OF NATURAL PRODUCTS. Three credits. Three lecture hours per week. Pre-requisite: BIOL 3032, QUIM 3012

This course is intended for natural sciences students and pretends to train them more advanced courses and for careers related with natural products. The lecture and discussion comprises the study of the chemistry of natural product or secondary metabolites such as aromatic polyketides, terpenes, phenolic compounds and alkaloids. The classification, structure, origin, synthesis, isolation, function and uses of these metabolites included. Biosynthetic pathways are studied

through biogenic precursors in term of the reaction's nature and mechanisms. They will also be compared, where applicable, to chemical synthesis reaction and mechanisms.

QUIM 4999. SPECIAL PROBLEMS. Two credits. Six lecture hours per week.

Pre-requisite: QUIM 3002

Introduction to chemical research, consisting of experimental work supervised by a faculty member, and stressing the student's in the solution of a research problems.

PHYSICS

CIFI 3001. INTRODUCTION TO PHYSICAL SCIENCES I. Three credits. Three lecture hours per week.

One studies the origin and construction of the fundamental concepts in the diverse disciplines of physical sciences, the theoretical evolution of such and the methodology used in the construction of the scientific knowledge. Fundamental concepts of astronomy, kinematics, dynamics and energy study. Laboratory experiences are included in where the thematic one of the course acquires knowledge and applies.

CIFI 3002. INTRODUCTION TO PHYSICAL SCIENCES II. Three credits. Three lecture hours per week. Pre-requisite: CIFI-3001.

This course presents from the point of view of the evolution of concepts, the theories of electricity, magnetism, the development of the atomic theory of matter and those fundamental ideas that make modern a predominant cultural factors of this century.

FISI 1001. TECHNICAL PHYSICS I. Three credits. Three lecture hours per week.

Co-requisite: MATE 1002.

Introductory course in physics that concentrate on the technical applications of the fundamental concepts of kinematics, dynamics, analytical mechanics, energy, hydraulics and thermodynamics.

FISI 3011. UNIVERSITY PHYSIC I. Three credits. Three lecture hours per week.

Co-requisite: MATE 3031.

Introductory course to physic as a fundamental science. Offers a unified vision of physics, with emphasis on the principles of conservation, the concepts of field an waves and matter as seen from the perspective of the atomic theory of matter. The first semester includes kinematics, dynamics of the particle, energy, oscillatory motion, dynamic of a system of particles and the gravitational field.

FISI 3013. UNIVERSITY PHYSIC LABORATORY I. One credit. Three lecture hours per week. .

This course complements the knowledge acquired by the students in class. It consists of experiments designed to verify the laws of mechanics and thermodynamics.

FISI 3012. UNIVERSITY PHYSICS II. Three credits. Three lecture hours per week.

Pre-requisites: FISI 3011, FISI 3013.

An introduction to electricity and magnetism with calculus for science majors. Electrostatics; charges and fields. Coulomb's law, gauss law. Energy of the electrostatic fields. Introduction to concepts of vector calculus; line and surface integrals; gradient, divergence and curl of a vector function gauss and stokes theorems. Electric potential electric fields in conductors and insulations, energy stored in a capacitor. Electric current. OHM'S law. Circuits; electromotive force. Variable currents in capacitors for potential. Ampere's law. Electromagnetic induction. Displacement currents and Maxwell's equations. Inductive circuits. Alternating currents circuits and solutions to ordinary linear equations. At the level of Berkeley series.

FISI 3014. UNIVERSITY PHYSICS LABORATORY II. One credit. Three lecture hours per week. Pre-requisite: FISI 3011, FISI 3013.

This course includes experiments on electromagnetism, optics and modern physics.

FISI 3171. PHYSICS I. Four credits. Four lecture hours per week.

Pre-requisite: MATE 3031

Principles of mechanics, waves and optics for modern physics for engineering and the science.

FISI 3172. PHYSICS II. Four credits. Four lecture hours per week.

Pre-requisite: FISI 3171, FISI 3173, MATE 3032

Principles of electricity, magnetism and modern physics for engineering and the science.

FISI 3173. PHYSICS LABORATORY I. One credit. Three lecture hours per week.

Pre-requisite: MATE 3031. Co-requisite: FISI 3171

Experiments in mechanics, waves, and optics to complement the physic I course.

FISI 3174. PHYSICS LABORATORY II. One credit. Three lecture hours per week.

Pre-requisite: FISI 3171, FISI 3173

Experiments in electricity, magnetism and modern physics to complement the physics II course.

FISI 4038. FUNDAMENTALS OF GENERAL PHYSICS. Four credits. Three lecture hours per week. Pre-requisite: MATE 3172

Basic principles of mechanisms, sound, light, electricity, and magnetism, study of fundamental quantities: length, mass, time, measurements and standard systems of precision; vectors, uniform motion: distances and displacement, velocity, speed and uniform acceleration.

FISI 4039. FUNDAMENTALS OF GENERAL PHYSICS LABORATORY. No credit. Two lecture hours per week. Laboratory to accompany physics 4038.

Complements FISI-4038

PHYSICAL THERAPY

BIOL 1011. HUMAN ANATOMY PHYSIOLOGY I. Four credits. Three lecture hours per week. Co-requisite: BIOL 1012

A study of the basic principles of human anatomy and physiology. A study of cellular morphology and cellular physiology and of the skeletal, muscular and nervous systems from a histological, anatomical and physiological viewpoint. Course designed for students in the associate degree programs in nursing and therapy and the bachelor's degree program in nursing.

BIOL 1012. HUMAN ANATOMY PHYSIOLOGY LAB I. No credits. Three hours per week.

Laboratory practice to complement and supplement the course BIOL 1011. A study of the basic concepts in chemistry, microscopy techniques, cellular morphology and physiology and system studied in class. Models, films and the other audiovisual resource are used in order to achieve a better comprehension of the topics studied.

BIOL 1013. HUMAN ANATOMY AND PHYSIOLOGY II. Four credits. Pre-requisite: BIOL 1011.

A study of the basic principals of human anatomy and physiologic and the digestive, respiratory, endocrine, seculatory and urogenital systems. Emphasis on interrelation of all the systems in coordinating the normal functioning of the body. Course design for students in the Associate Degree Program in Nursing and Therapy and the Bachelor Degree program in Nursing.

BIOL 1014. LABORATORY HUMAN ANATOMY PHYSIOLOGY II. Four credits. Pre-requisite: BIOL 1012.

Laboratory practice to complement and supplement the course BIOL 1013. A study of the anatomical and physiological systems study in class and their interrelation. Models, films and other audiovisual resources are used in order to achieve a better comprehension of the topic studied.

TEFI 1005. INTRODUCTION PHYSICAL THERAPY. Three credits. Three lecture hours per week. Co-requisite: TEFI 1006, TEFI 1016

The definition, historical and philosophical development scope and contribution of Physical Therapy in the health field. It also includes: medical terminology, professional ethics, and principles of organization an administration and law degrees which govern the practice of Physical Therapy in Puerto Rico.

TEFI 1006. THERMOTHERAPY. Four credits. Three lecture and practice hours per week. Co-requisite: TEFI 1007, TEFI 1005, TEFI 1016.

Lectures, demonstrations, and practice of the different types of thermotherapy. Provides the knowledge for the development of skills in applying the different treatment used in Physical Therapy using: water, electrical shock, energy and ultrasound.

TEFI 1007. SUPERVISED TRAINING OF THERMOTHERAPY. No credit. Three hours per week. Co-requisite: TEFI 1006
Practice of TEFI-1006, Thermotherapy

TEFI 1008. MASSAGES. Two credits. One hour per week. Pre-requisites: BIOL 1011, TEFI 1005, TEFI 1016. Co-requisite: BIOL 1013, TEFI 1009.
Lectures, demonstrations and practice, the historical development, effects, instructions and contradictions. The study and development of skills in applying different techniques in therapeutic massages for the backs, limbs and face are included.

TEFI 1009. SUPERVISED PRACTICE MASSAGES. No credit. Two hours per week. Co-requisite: BIOL 1011. Co-requisite: TEFI 1008.
Practice for TEFI-1008, Massages.

TEFI 1015. INTRODUCTION TO PRACTICAL EXPERIENCE. One credit. One hundred twenty hours of contact. Pre-requisites: TEFI-1005, TEFI-1006. Co-requisites: TEFI-1008, TFOC-1006.
This is the first supervised practical experience where the student will attend and institution that provides services in Physical Therapy. The student will observe how patients of the institution are treated with different procedures. They will also observe the organization and operation of the situation and of its Physical Therapy Department.

TEFI 1016. HOSPITAL TECHNIQUES. Two credits. One lecture hour per week. Co-requisite: TEFI 1017
Lectures, demonstrations and practice in the techniques required of the paramedic personnel. It includes: bandages, asepsis bed making, vital signs recognition, first aid, etc.

TEFI 1017. HOSPITAL TECHNIQUES PRACTICE. No credit. Two hours per week. Co-requisite: TEFI 1016
Practice for TEFI-1016, Hospital Techniques.

TEFI 2001. PRACTICAL EXPERIENCE I. Two credits. Eight hours per week. Pre-requisite: TEFI-1015. Co-requisites: TFOC 1005, TEFI 2005
This is the second supervised practical experience where the students will observe and treat patients (of the assigned institution) with different procedures of Physical Therapy. It includes observing the organization and operation of the institution and its Physical Therapy Department.

TEFI 2002. PRACTICAL EXPERIENCE II. Two credits. One hundred twenty hours of contact. Pre-requisite: TEFI-2001. Co-requisites: TEFI 2007, TEFI 2009, TFOC 1007.
This is the third supervised practical experience where the students will treat patients with the different procedures used in Physical Therapy.

TEFI 2005. THERAPEUTIC EXERCISE I. Four credits. Three lecture hours per week. Pre-requisites: BIOL-1011, BIOL 1013. Co-requisites: TEFI 2006, TFOC 1005.
The study of exercise as a therapeutic means. The different types of exercises, their effects and indications. The precautions taken and the use of special equipment during the practice of these

exercises are studied. The student is taught his responsibility as the Assistant Physical Therapist by completing evaluations for the purpose of preparing exercise programs.

TEFI-2006 SUPERVISED PRACTICE OF THERAPEUTIC EXERCISE. No credit. Three hours per week. Co-requisite: TEFI 2005.

Practice for TEFI-2005, Therapeutic Exercises I.

TEFI-2007. THERAPEUTIC EXERCISES II. Four credits. Three lecture hours per week. Pre-requisite: Pre-requisites: TEFI 2005, TFOC 1005. Co-requisite: TEFI 2008

Lectures, Demonstrations and training in normal walking patterns and their deviations. It includes the study of the different aid and support apparatus that is used in dealing with problems of the superior and inferior extremities; essential daily activities.

TEFI 2008. THERAPEUTIC EXERCISE II PRACTICE. None credit. Three lecture hours for week.

Complements TEFI-2007, Therapeutic Exercises II.

TEFI 2009. APPLICATION OF PHYSICAL THERAPY IN PHYSICAL DYSFUNCTION. Four credits. Four hours of lecture per week. Pre-requisites: TEFI-1005, TEFI 1006, TEFI 1015, TEFI 1016, TEFI 2001, TEFI 2005, TFOC 1006. Co-requisite: TEFI 2002

Lectures and demonstrations of the Physical Therapy Programs which are used when working with patients with different medical conditions, specially in relation to the respiratory, cardiovascular, nervous and muscular-skeletal systems. Includes visits to hospitals and rehabilitation centers.

TEFI 2013. PHYSICAL THERAPY APPLICATION LABORATORY FOR PHYSICAL DYSFUNCTION. No credit. Three hours per week. Co-requisite: TEFI-2009. Co-requisite: TEFI 2009

Practical experience in which the student applies knowledge related to evaluation and interpretation of ergonomic and architectonic barriers. The student will put into practice specialized treatment techniques related to special populations, pediatrics, geriatrics, neurology, and orthopedics, among others.

TFOC 1005. FUNCTIONAL ANATOMY. Three credits. Three lecture hours per week. Pre-requisites: BIOL-1011, BIOL 1013

Lectures, demonstrations and practice related to different body movements, the joints in which they occur and the muscles responsible for these actions. Includes muscle innervations and general concepts of body mechanics.

TFOC 1006. INTRODUCTION TO PHYSICAL DYSFUNCTION. Four credits. Four lecture hours per week. Pre-requisite: BIOL 1011. Co-requisite: BIOL 1013

Lectures and discussion about the definition, Etiology, Pathogenesis, major clinical manifestations, and general principles of treatment of medical conditions with emphasis on those affecting the nervous, respiratory, cardiovascular, and musculoskeletal systems. Includes general concepts on health illness, growth, and human development.

TFOC 1007. INTRODUCTION TO PSYCHOSOCIAL DYSFUNCTION. Three credits. Three lecture hours per week. Pre-requisite: PSIC 3005. Co-requisite: TEFI 2002

Study of the factors associated with mental health. The course focuses on the system theory for the analysis of the causes, symptoms, course and type of psychosocial disorders. Includes the relation between normal and abnormal psychosocial development and the evolution of the psychiatric field. Different world vision, frames of reference and specific techniques used by different theorists are presented. Also includes visits to institutions that provide services for patients with psychosocial dysfunction.

TFOC 1008. FUNCTIONAL ANATOMY SUPERVISED PRACTICE. No credit. One hour per week. Co-requisite: TFOC 1005.

Laboratory for TFOC-1005.

ATHLETIC THERAPY

TATL 3210. SEMINAR ON ATHLETIC THERAPY. Three credits. Three hour per week.

A general background of athletic therapy is presented: it includes, but is not limited to the following: organization and administration of the services, moral and ethical aspect rehabilitation concepts and group work, existing laws that rule the practice of the profession; groups or existing profession associations and their impact on the profession.

TATL 3211. INTRODUCTION TO SPORTS I – SPORTS IN PUERTO RICO. Three credits. Three hour per week.

Teaching and practice of the sports that are commonly practice in Puerto Rico at the amateur level as well as professional. It includes basketball, volleyball, baseball and softball, track and field, swimming, gymnasium, weight lifting, tennis active and passive games, among others.

TATL 3212. INTRODUCTION TO SPORTS II – WORLD SPORTS. Three credits. Three hour per week. Pre-requisite: TATL 3211

Teaching of sports that although practiced in Puerto Rico, are more common in the international world of amateur and/or professionals. It includes boxing, cycling, soccer, handball martial arts, (judo, karate), golf, lawn hockey, fencing bowling, Olympic fight, football (American), tough, archery, badminton, and sports that are adapted to those physically handicap, among others.

TATL 3225. GENERAL CONCEPTS OF COMMUNITY HEALTH. Three credits. Three hour per week. Pre-requisite: TATL 3210. Co-requisite: TATL 3026.

Fundamental information about the concepts of individual health and its implications in the interactions of the individual with in environment and the surrounding community. The importance of personal hygiene, the preventions of conditions that endanger health, the necessity to transfer the means of health care from the personal to the community and collective level, the importance of creating conscience about present problems of group health and the necessity to unite efforts to better the quality of life the community is emphasized throughout the course.

TATL 3226. LABORATORY OF GENERAL CONCEPTS OF COMMUNITY HEALTH. None credit. One hour per week. Pre-requisite: TATL 3225

During the laboratory the student will have the opportunity to put into practice the knowledge of community and personal health acquired during lectures he/she be able to practice relaxation techniques, personal health, maintenance asepsis and detection of health problems, among others.

TATL 3235. FIRST AID IN SPORTS. Three credits. Three lecture hours per week. Three credits. Three hour per week. Pre-requisites: TATL 3210, TATL 3225. Co-requisite: BIOL 3013

This course present an analysis of the appropriate first aid techniques used in sport competition where athletic injuries occur. The strategy to identify injuries and the use of first aid techniques, according to the tissues and the physically affected area, will be discussed. The cardiopulmonary resuscitation techniques and the coordination of its needed services are included in this course.

TATL 4001. ATHLETIC INJURIES. Four credits. Four lecture hours per week. Pre-requisites: TATL-3210, TATL 3235, BIOL 1011, BIOL 1013. Co-requisite: TATL 4002.

The identification of the factors or causes of injury risk or illness connected to the athletic competitions, in addition, of the plans to introduce the components of a program which includes the prevention and first aid treatment of the athlete of sport activity participant.

TATL 4002. ATHLETIC INJURIES LABORATORY I. No credits. Three hours per week. Co-requisite: TATL 4001

This laboratory involve experiences which complement the theoretic aspects discussed in the athletic injuries I course. The practical experiences include the participation of the student in the evaluation of the injured athletes and their neuromuscular function which will be carried out by the medical personnel.

TATL 4003. ATHLETIC INJURIES II. Four credits. Four hours of lectures per week. Pre-requisites: TATL-4001, TATL 4002, BIOL 1011, BIOL 1013. Co-requisite: TATL 4004.

Continuation of the identification of the causes for the risk of injuries of illness, connected to the participation in athletic competitions, in addition to the plan of introducing the components of a program which includes the prevention and first aid treatment of the athlete or sport activity participation.

TATL 4004. ATHLETIC INJURIES LABORATORY II. No credits. Three hours per week. Co-requisite: TATL 4003.

This laboratory involves experiences which completing the theoretical aspects discussed in the athletic injuries II course. The practical experiences include the participation of the student in the practice of bandaging techniques and rehabilitation strategies, emphasizing exercises and therapeutic massage.

TATL 4025. BASIC PATHOPHYSIOLOGY. Four credits. Four hours of lectures per week. Pre-requisites: BIOL 1011, BIOL 1013.

Revision of the most common patho-physiological conditions resulting from injuries of illnesses which occur mostly in athletes. This course includes concepts of general medicine, surgery, neurology, orthopedics and others.

TATL-4027. BASIS CONCEPTS OF THE PHYSIOLOGY OF EXERCISE. Three credits. Three lecture hours per week. Pre-requisites: BIOL 1011, BIOL 1013.

Co-requisite: TATL 4028.

The course describes, explains and reviews the scientific investigation of the answers and adaptations of the bioenergetic, neuromuscular, pulmonary and circulatory functions, as a result of the physical activities and sports training of a normal human being. Besides, the effects of the environment and the doping in the performance of the physical activities and sports productions are studies in this course. Throughout the course, the student discusses and gets acquainted with the use of equipment; technological resources test and techniques for the evaluation of the answer and adaptations of the physical activities and sports training.

TATL 4028. BASIS CONCEPTS OF THE PHYSIOLOGY OF EXERCISE LABORATORY. No credits. One hour per week. Co-requisite: TATL 4027

In the laboratory the student will put into practice the knowledge gained during the lectures. He/she will familiarize himself/herself with the uses of equipment, technological resources, tests, and techniques for the evaluation of responses to physical activity and athletic sports training.

TATL 4035. MEASUREMENT AND EVALUATION IN SPORTS. Four credits. Three lecture hours per week. Pre-requisite: TATL 4027. Co-requisites: TATL 4036, TATL 4065.

In this course the basic principles of measurement as they apply to the different sport are presented and discussed. The technical, methodological and interpretative aspects of measurement of sports performance are analyzed. There are also discusses the field and laboratory tests of greatest utility in the evaluation of the physical aptitude and sports skills, and also their reliability and certainty.

TATL 4036. LABORATORY OF MEASUREMENT AND EVALUATION IN SPORT. No credits. Three hours per week. Co-requisite: TATL 4035.

In this laboratory the student will be able to put into practice those measurement and evaluations that are undertaken as part of the athlete's training and are discussed during lectures. The

students will familiarize himself with the equipment that is used and will be able to practice the techniques discussed in class using another laboratory student as patient.

TATL 4065. INTRODUCTION TO THE METHODOLOGY OF SPORTS TRAINING. Three credits. Three lecture hours per week. Pre-requisite: TATL-4027. Co-requisites: TATL 4035, TATL 4036.

This course will include the discussion of the basic principles of sports training, the importance of planning, the stages and structure of a training annual plan and the technical means used to

develop the functional capability and the skills needed in sports. The student will learn, in general terms, to design a training plan for the most essential sports.

TATL 4101. CLINICAL PRACTICE I. Four credits. Eight hours per week.

Pre-requisites: Having approved the first and second year curriculum. TATL 3010, TATL 3211, TATL 3235, TATL 3211, TATL 3212, TATL 3235, TATL 4001, TATL 4025, TATL 4027, BIOL 1012, BIOL 1013. **Co-requisite:** TATL 4003, TATL 4035, TATL 4035.

This course is designed to offer the students the training experience that is part of theoretical courses. During this training will observed the critical activity and learn about sports events. They will be able to assume a progressively active role in terms of initial examination of the injury and in making suggestions for the coordination of the service in the sports events.

TATL 4102. CLINICAL PRACTICE II. Four credits. Eight hours per week.

Pre-requisites: TATL-4101, TATL 4003, TATL 4035, TATL 4065.

This course is designed to offer the student the training experience that is part of the theoretical courses. During this training the student will assume an active role in the initial examination of injuries and in the coordination of services, under the direct supervision of his clinical instructor. The student will assume certain responsibility for the tasks carried out under supervision. He can make suggestions, out will not be held responsible for the making of decisions.

TATL 4115. PSYCHOLOGY OF EXERCISES AND SPORTS. Three credits. Three lecture hours per week. Pre-requisites: PSIC 3005, TATL 4001, TATL 4003.

Revision of the normal psychophysiological patterns and he risk factors associated with them, beginning at the preadolescent stage up to an adult. It includes the psychological answers to traumas and how they affect the rehabilitation process. The most common social and personal conflict are discussed, and also the psychotic and psychoneurotic disorders. The psychological theories are emphasized in order to control and manage the chronic acute pain.

TATL 4125. NUTRITION IN SPORTS. Three credits. Three lecture hours per week.

Pre-requisites: BIOL-3011, BIOL-3012, TATL 4027.

This course presents basic concepts of nutrition and its relation to the exercise and sports. The nutritional requisites for the different sports, including the basic aspects of the metabolism of the carbohydrates, the proteins and the fat are analyzed in this course. The role of the vitamins, the minerals and the water are also discussed. The principles for an athlete's diet including the requisite of an ideal weight for competing forms parts of the course content.

TATL 4135. SPORTS HEALTH FOR SPECIAL POPULATION. Three credits. Three lecture hours per week.

In this course the following will be discussed: biological answers to acute exercises in children, the elderly, women and the persons with handicap. There will also be studied the bio-psychosocial benefits of chronic of acute exercises (example, training) in the mentioned population. Particular emphasis will be given to the discussion of the factors that distinguish these populations' forms other average groups.

TATL 4201. CLINICAL PRACTICE III. Four credits. Eight hours a week.

Pre-requisites: TATL-4101, TATL-4102, TATL 3235, TATL 4001, TATL 4003, TATL 4025, TATL 4027, TATL 4035, TATL 4065. **Co-requisite:** TATL 4115.

This course is designed to offer the student the training experience that is part of the theoretical courses. During this training, the student will assume a more active role in the initial examination of injuries and in the coordination of the services in the sports events. The student will be assigned, as part of the health personnel of a team or national selection. The student will accompany the team in all of its practices and competitions under the supervision of the health personnel and/or clinical instructor. He will also be responsible of the revision and critical evaluation of the scientific literature in the field which might have an impact upon his clinical practice.

TATL 4202. CLINICAL PRACTICE IV. Four credits. Eight hours per week.

Pre-requisites: TATL-4102, TATL 4003, TATL 4027, TATL 4035, TATL 4065, TATL 4115, TATL 4125. **Co-requisite:** TATL 4135.

This course is designed to offer the student the training experience that is part of theoretical courses. This practice, the student will be responsible for the examination of injuries and the coordination of service in sports events. The student will be assigned as part of the health personnel of a team in all of its practices and competitions under the supervision of the health personnel and or clinical instructor. He will also be responsible of the revision and critical evaluation of the scientific literature in the field which might have an impact upon his clinical practice.

TFOC 1005. FUNCTIONAL ANATOMY. Three credits. Three hours per week.

Pre-requisites: BIOL 1011, BIOL 1013.

Lectures, demonstrations and practice related to different body movements, the joints in with they occur and the muscles responsible for these actions. Includes muscle innervations and general concepts of body mechanics.

TFOC 1008. FUNCTIONAL ANATOMY LABORATORY. Three credits. One hour per week. Co-requisite: TEFI 1005.

Demonstrations and practice of the anatomic and functional aspects of the human movement. Emphasize the function of the skeletal and neuromuscular structures, palpitation and identification of the anatomic structures, normal range of movement, manual muscular evaluation, among others.

OFFICE SYSTEMS

SOFI 3005. BASIC KEYBOARD TYPEWRITING. Three credits. Three lecture hours a week.

Teaching of the basic skills and techniques that are necessary for touch-typing on an electronic keyboard. Development (speed and accuracy). Transfer of basic skills to straight copy rough draft, and statistical copy. Introduction to problem solving keyboard typewriting: horizontal and vertical centering, personal letters, memoranda, easy tabulation exercises. Introduction to

the teaching of word division rules in typing, proofreading techniques and error-correcting methods. Development of the correct attitudes and work habits.

SOFI 3015. OFFICE SYSTEMS AND TECHNOLOGICAL CONCEPTS. Three credits. Three lecture hours a week.

Study of the theory and evolution of information processing as a system, its cycle, the human aspects in the use of this technology. It includes the study of the subsystems in information processing and telecommunication. The theoretical and practice concepts of operating systems are also introduced.

SOFI 3017. INTERPERSONAL RELATIONSHIP IN THE OFFICE. Three credits. Three lecture hours a week.

Promotes self knowledge through the study of personality development, the formation of the “I” concept, how to handle emotions, and effective communication. Includes the analysis of Human behavior in terms of the individual, groups and enterprise. Study of the terminology, formats, document, laws and ethical aspects related to processing information in medical offices. Basic procedures for the processing of billing medical services using a computer program.

SOFI 3105. DOCUMENTS PRODUCTION I. Two credits. Two lecture hours a week.

Pre-requisite: SOFI 3005. Co-requisites: SOFI 3106, SOFI 3125, SOFI 3126.

Continues with the development of basic skills and typing theories. Discussion about typing, grammatical and word division rules applied to the document creation, proofreading techniques during the document editing process, process, business letter format with special notations. Memoranda, tables with notation and the different means of reprographics. Emphasis in the development of proper work habits.

SOFI 3106. DOCUMENT PRODUCTION LABORATORY I. No credits. Two lecture hours a week. Pre-requisite: SOFI 3005. Co-requisites: SOFI 3105, SOFI 3125.

This is a complementary course of document production I. The student has the opportunity to develop the basic skills of speed and accuracy to the highest degree. Through a variety of exercises, the student will apply thinking skill in producing and editing documents. Special emphasis in the development of work attitudes and habits.

SOFI 3125. WORD PROCESSING. Two credits. Two lecture hours a week. Pre-requisite: SOFI 3015. Co-requisites: SOFI 3105, SOFI 3106, SOFI 3126.

Teaching of the functions of a word processing software, including the word processing cycle.

SOFI 3126. WORD PROCESSING LABORATORY. None credit. Two lecture hours a week. Pre-requisite: SOFI 3015. Co-requisite: SOFI 3105 y SOFI 3125.

Course designed to reinforce the mastering of the basic word processing software functions. The basic commands of the operating system and the basic functions of word processing software will be used in the creation on document.

SOFI 3210. DOCUMENTS ADMINISTRATION. Three credits. Three lecture hours per week.

Teaching of the rules for the alphabetical filing of documents. It studies the organization and procedure for alphabetic, numerical, geographic and subject filing methods. Training in the

methods and modern techniques for management: charge out method, transfer retention of documents microfilm and data processing.

SOFI 3215. SPEEDWRITING IN SPANISH. Five credits. Five lecture hours per week. Pre-requisite: ESPA 3101.

Teaching of the principles of speedwriting in Spanish includes reading and dictation using a speed writing system to transcribe in handwriting (longhand) includes a review of language rules.

SOFI 3217. INTRODUCTION TO SPANISH. Four credits. Four lecture hours per week. Pre-requisite: ESPA 3101.

Teaching of the basic techniques for taking dictation to transcribe acceptable documents. It includes the study of vocabulary and common expressions in modern written communication.

SOFI 3218. PRODUCTION OF DOCUMENTS II. Two credits. Two lecture hours per week. Pre-requisites: ESPA 3105, SOFI 3106, SOFI 3125. Co-requisite: SOFI 3219.

Teaching and creating of business document, such as: purchase forms, application forms, invoices, financial statements, report, job application and personnel data sheet. It reinforces the basic skills, producing of business reports, and memorandums. The techniques of evaluation during the editing process of the document are taught course also emphasizes on the development of positive attitudes and work habits.

SOFI 3219. LABORATORY OF PRODUCTION OF DOCUMENTS II. None credit. Two lecture hours per week. Pre-requisites: ESPA 3105, SOFI 3106. Co-requisite: SOFI 3118.

This is a complementary laboratory for the course of production of documents. The student will continue with the development of the basic and organizational skill through reinforcement exercises creation and editing of administrative correspondence, and statistical material. The development of positive attitudes to realize an assigned task are also emphasized.

SOFI 3305. INFORMATION PROCESSING. None credit. Two lecture hours per week. Pre-requisite: SOFI 3125. Co-requisite: SOFI 3306.

Teaching of application software's compatible with the administrative functions. It includes the basic functions of information processing, such as: spreadsheets, database and graphics.

SOFI 3306. INFORMATION PROCESSING LABORATORY. None credit. Two lecture hours per week. Pre-requisite: SOFI 3125. Co-requisite: SOFI 3305.

Course designed to reinforce the mastering of information processing software functions, such as: spreadsheets, database and graphics. Information processing function will be used in the creation of document.

SOFI 3315. SPEEDWRITING IN ENGLISH. Five credits. Five lecture hours per week. Pre-requisite: INGL 3101.

Teaching of the principles of speedwriting in English. Includes reading, writing and dictation using a speed writing system to transcribe in handwriting (longhand). Includes a review of languages rules.

SOFI 3317. INTRODUCTION TO ENGLISH TRANSCRIPTION. Four credits. Four lecture hours per week. Pre-requisites: INGL 3101, SOFI 3315.

Teaching of the basic dictation taking techniques and application of English language rules in order to transcribe in handwriting (longhand) mail able documents. Includes the study of vocabulary and idiomatic expressions used in written communications.

SOFI 3327. TRANSCRIPTION IN SPANISH. Four credits. Four lecture hours per week. Pre-requisites: SOFI 3215, SOFI 3125, SOFI 3105.

Training in the adequate techniques to transcribe using electronic equipment. Integration and application of the typing skills, speed writing systems and the application of language to the transcription of documents. This course must be approved with a minimum of "C".

SOFI 3328. TRANSCRIPTION IN ENGLISH. Four credits. Four hours of lecture per week. Pre-requisites: SOFI 3315, SOFI 3125, SOFI 3105.

Training in the adequate techniques to transcribe using electronic equipment. Integration and application of the typing skills, speed writing systems and the application of language to the transcription of documents. This course must be approved with a minimum of "C".

SOFI 3355. ADMINISTRATIVE OFFICE PROCEDURES. Three credits. Three hours of lecture per week. Pre-requisite: SOFI 3105. Co-requisite: SOFI 3327.

Emphasis on the duties and responsibilities, as well as in the professional image, characteristics and personality traits of the office professional. Discussion and personality traits of the office procedures in the modern office. Teaching of the principles of decision making and time management vital to the efficient and effective job performance in the office.

SOFI 3357. ELEMENTARY PROCEDURES OF ACCOUNTING. Three credits. Three lecture hours per week.

Accounting specially designed for the student of the Office Systems Program. It includes a general study of the basic elements of accounting on a double basis, with appropriate application on special journals, subsidiary ledgers and other related accounting records. Control of the petty cash system, preparation and analysis of payroll and financial statements.

SOFI 4005. INTEGRATION OF APPLICATION SOFTWARE IN THE ELECTRONIC INFORMATION. Four credits. Four hours of lecture per week.

Pre-requisite: SOFI 3305

Teaching of word processing, spreadsheets, and database advanced function. Integration of text to other application software's.

SOFI 4030. DESKTOP PUBLISHING. Three credits. Three hours of lecture per week. Pre-requisite: SOFI 3125.

Teaching of the basic computer concepts of desktop publishing. Training in the design, creation, and production of professional publication in the office environment.

SOFI 4035. SPECIALIZED TRANSCRIPTION. Four credits. Four lecture hours per week. Pre-requisites: SOFI 3327, SOFI 3328, SOFI 3218.

Advance training in the skills of transcription using specialized vocabulary in English and Spanish in diverse areas of the secretarial field, such as Advertising, Banking, Insurance,

Medicine, Government, Education and others. (The topics or specialized areas may vary according to the current necessities of the community and the employment markets of the institutional unit where this course is offered.)

SOFI 4036. PROCEDURES OF THE LEGAL OFFICE. Four credits. Four lecture hours per week. Pre-requisites: SOFI 3327, SOFI 3218.

Emphasis on the responsibilities and duties of the administrative personnel in the legal office. It includes learning and application of terminology functions and procedures in the legal document production. Development of effective human relations, good judgment, positive attitudes and professional ethics. Development and application of the time management principles, problem solvency, decision making process, analysis and interpretation of rules.

SOFI 4037. ADVANCED PRODUCTION OF DOCUMENTS. Three credits. Four lecture hours per week. Pre-requisite: SOFI 3218.

Emphasize on production techniques in the modern office. Mastery of techniques in transcribing from rough drafts; follow oral and written instructions. Production of specialized material and mastery of the proofreading techniques.

SOFI 4038. OFFICE ADMINISTRATION. Three credits. Three lecture hours per week. Pre-requisite: SOFI 3355.

Provides the principles of planning, organizing, leading and controlling of office activities and the problem solving situations, the theories of motivation the management of information processing as well as the effects of new technologies on the administrative of the office management and the office personnel will be stressed.

SOFI 4039. INTEGRATED ELECTRONIC OFFICE. Three credits. Four lecture hours per week. Pre-requisites: SOFI 3305, SOFI 3327 or SOFI 3328.

This course has been designed to strengthen skills, knowledge and proper attitudes in the administrative assistant. Emphasis in the office administration. It includes in decision making, setting priorities, transcription and editing documents and proofreading techniques.

SOFI 4040. PLANNING OR IMPLEMENT AND USER INFORMATION SYSTEM. Three credits. Three lecture hours per week. Pre-requisite: SOFI 3015.

Study of the planning and implementation strategies as: word processing, reprographics, communications, and records management. Emphasis upon employee and workgroup interactions. Particular attention is given to inter group needs as related to end-users, departmental, and organizational goals through cases or field-based projects.

SOFI 4045. MEDICAL OFFICE ADMINISTRATIVE PROCEDURES. Three credits. Three lecture hours per week.

Practice related with the processing and administrative documents in the medical office. Learning of the terminology, laws, format, and ethic aspect with the administrative procedures in the medical office. Emphasis of the basic basket simulation. This course is designed for processions related with office administrative.

SOFI 4046. MEDICAL PLANS BILLINGS. Three credits. Three lecture hours per week. Pre-requisite: SOFI 4045.

Practice related with the basic principles of medical plans billing using computer applications programs. Also, it promotes the use of skills and knowledge bases on: coding, procedures and medical diagnoses: manual and electronic medical plans billing, general procedures related with auditing and payment reclaim of the medical plan invoices through the simulated practice. This course is designed for professions related with office administration.

SOFI 4305. APPLICATION SOFTWARE AND EQUIPMENT SELECTION AND EVALUATION. Three credits. Three lecture hours per week. Pre-requisite: SOFI 3305.

Study and analysis of application software and office equipment from the end-user perspective. Emphasis in the comparative and evaluative techniques for appropriate selection or software applications and office equipment.

SOFI 4505. IN SERVICE TRAINING TECHNIQUES. **Three credits. Three lecture hours per week. Pre-requisites: SOFI 3305, SOFI 4005.

Teaching of techniques for employees' training in office systems. Implementation, evaluation, and management of training program in the organizational environment.

SOFI 4545. OFFICE SYSTEM SYNTHESIS AND EVALUATION. Three lecture hours per week. Pre-requisites: SOFI 4040, SOFI 4305.

Integration and evaluation of concepts related to current office system. Enhance problem-solving skill and provide opportunities to defend decision-marking alternatives through written and oral

communication; office system analysis emphasizing the human resources, technology, and the level of management relationships.

SOFI 4985. PRACTICUM AND SEMINAR. Five credits. Pre-requisites: SOFI 4038, SOFI 4005.

Supervised practice in offices of the community selected as centers of practice. The period of practice is equivalent to 135 hours per semester and 15 hours of seminar in which the students will engage in activities that will complement their transition from the university to the office.

* Free Elective Course. ** Elective Chosen Under Guidance.

MILITARY SCIENCES

CIMI 3011. INTRODUCTION TO MILITARY SCIENCES. Two credits.

Introduction to the basic military sciences concepts and principles. A brief history of the US Army ROTC Program. Emphasis on Principles of Leadership and land navigation.

CIMI 3012. BASIC MILITARY SKILLS. Two credits. Pre-requisite: CIMI 3011.

Training in basic military skills such as first aid, physical fitness, military drill, and ceremony, and land navigation using a map and compass. Emphasis on the development of leadership and basic military knowledge.

CIMI 3021. FUNDAMENTAL OF MILITARY TACTICS I. Two credits.

Pre-requisite: CIMI 3012.

Study of basic military tactics at the squad level. Introduction to military geography and land navigation. Advanced techniques in the improvement of oral expression. Leadership laboratory.

CIMI 3022. FUNDAMENTALS OF MILITARY TACTICS II. Two credits. Pre-requisite: CIMI 3021.

Continuation of basic military unit tactics. Principles of military strategy. Study of military formations, support and communication.

CIMI 3031. MILITARY COMMUNICATION SKILLS I. No credit. One lecture hour per week.

The course is designed for first and second year Military Science Program students. Intensive grammar, pronunciation, and conversational course. Emphasis will be given to the audio-oral aspect. Oral communication is intensified through group situations in which the student asks and answers questions, receives and gives directions, through short dramatizations, conversations, and the preparation and presentation of oral reports. A great number of resources are used such as: movies, magazines, news papers, and military manuals. The course follows a military format as departing point for the classes.

CIMI 3041. SPEAKING AND UNDERSTANDING ENGLISH IN TODAY'S. One credit. Two hours per week.

This course is designed for those military science students who have demonstrated a limited proficiency in the English language as measured by the English comprehension level test (ECLT), the official department of defense English language proficiency test. Course emphasis is on pronunciation, reading comprehension, vocabulary, and a general review of English grammar using a military centered functional-notional approach.

CIMI 3042. BASIC ENGLISH FOR TODAY'S ARMY. One credit. Pre-requisite: CIMI 3011.

This course is designed for those military science students who have demonstrated a limited proficiency in the English language as measured by the English comprehension level test (ECLT), the official department of defense English language proficiency test. Course emphasis is on pronunciation, reading comprehension, vocabulary, and a general review of English grammar using a military centered functional-notional approach.

CIMI 3043. INTERMEDIATE ENGLISH FOR TODAY'S ARMY. One credit. Two hours per week.

This course is designed for those military science students active who have demonstrated an intermediate level of proficiency in the English language as measured by the English comprehension level test (ECLT), the official department of defense English language

proficiency test. Course emphasis is on aural comprehension, speaking proficiency, pronunciation, vocabulary building, and general review of notional approach.

CIMI 3044. INTERMEDIATE ENGLISH FOR TODAY’S ARMY. One credit. Two hours per week.

This course is designed for those military science students who have demonstrated an intermediate level of proficiency in the English language as measured by the English comprehension level test (ECLT), the official Department of Defense English proficiency test. Emphasis is on aural comprehension, speaking proficiency, pronunciation, vocabulary building and a general review of English grammar using a military centered functional notional approach.

CIMI 3051. ADVANCED ENGLISH FOR TODAY’S ARMY. One credit. Two hours per week.

This course is designed for those military science students who have demonstrated advance English language proficiency as measured by the English comprehension level test (ECLT), the official department of defense English language proficiency test. Emphasis is on aural comprehension, speaking proficiency, reading comprehension, basic writing skills, and English grammar using a military centered functional-notional approach.

CIMI 3052. SPEAK AND UNDERSTAND ENGLISH (ADVANCE LEVEL). One credit. Two hours per week.

The course is designed for those military science students who have demonstrated advance English proficiency as measured by the English comprehension level test (ECLT), the official department of defense English language center proficiency test. Emphasis is on aural comprehension, speaking proficiency, reading comprehension, basic writing skills and English grammar, using a military-centered functional approach.

CIMI 4011. COMMUNICATION AND PSYCHOLOGY MILITARY LEADERSHIP. Four credits. Pre-requisite: CIMI 3022

Advanced course on communication techniques, both oral and written. Development of leadership by case studies and problems analysis that require psychological techniques. Army organization. Leadership Laboratories.

CIMI 4012. FUNDAMENTALS OF MILITARY STRATEGY. Four credits. Pre-requisite: CIMI 4011.

Study of the principles and fundamental premises in the development of military strategy. Command-staff functions and responsibilities in each level of command. Study of the principles for defense of a country. Leadership Laboratories.

CIMI 4021. MILITARY, HISTORY, LEADERSHIP & MILITARY ADM. Four credits. Pre-requisite: CIMI 4012.

Army writing style. Military administration,. Compendium of military and world history from the war principles to the basic military movements, the Spanish American war, and World War I, II, Korea and Vietnam. Leadership Laboratories.

CIMI 4022. SEMINAR: LEADERSHIP AND MILITARY ADMINISTRATION. Four credits. Pre-requisite: CIMI 4021.

Analysis of leadership problems. Study of the administration of units and military personnel. Command and staff responsibilities, duties and responsibilities of army officers.

CIMI 4031. MILITARY COMMUNICATION II. No credit. Two hours of lecture per week.

A course designed for cadets in their senior year. An intensive course in grammar and pronunciation to develop precision and fluency in oral and written English acquiring general and military vocabulary. The course includes the preparation and presentation of oral and written reports, dialogues and short skits. It uses a military format as a starting point. It also makes use of a large number of resources materials such as: movies, magazines, newspapers and military manuals.

CIMI 4040. MILITARY WRITING. Three credits. Three hours of lecture per week.

Practice in writing military letters, briefs and other documents.

CORDOVA CONGRESSIONAL INTERNSHIP PROGRAM COURSES

INTD 4000. CONGRESSIONAL INTERNSHIP – CORDOVA PROGRAM. Nine credits.

Internship in the United States of America Congress. Each student will be placed as an intern in the particular congressman's office or in one of the congressional dependencies, such as the library, the office of science and technology or the offices of congressional committees or subcommittees.

INTD 4010. ACADEMIC SEMINAR – WASHINGTON CENTER. Three credits.

This course will be an academic complement to the congressional internship. According to their academic or professional interests, each student will select one of the seminar courses offered each semester by experts through Washington Center.



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FACULTY

BUSINESS ADMINISTRATION AND COMPUTER SCIENCES DEPARTMENT FACULTY

Almodovar Maldonado, José A. Juris Doctor, MBA (Accounting), Pontifical Catholic University of Puerto Rico; D.E.A., University of Valladolid; Full Professor.

Barea Lugo, Sebastián. Ph.D., MA (Economy); New York State University in Binghamton; MBA (Finance), Inter American University of Puerto Rico; Assistant Professor.

Bracero Martínez, Myrna. MBA (Human Resources); Inter American University of Puerto Rico; Associate Professor.

Cintrón Rosario, Gladys. MBA (Management and Computers), Pontifical Catholic University of Puerto Rico; Associate Professor.

Correa González, Dalmid. MBA (Finance), Inter American University of Puerto Rico; Assistant Professor.

García González, Edgardo. MPA (Public Administration and Labor Relations), University of Puerto Rico; Full Professor.

González Vargas, Evelyn. Juris Doctor, MBA (Human Resources), Pontifical Catholic University of Puerto Rico; D.E.A., University of Valladolid; Assistant Professor.

Fischler Niemec, Charles. MS (Mathematics), Florida State University; Instructor.

López Sullivan, Eva J. Ph.D. in Organizational Industrial Psychology; MBA (Marketing), University of Puerto Rico (RUM); MA (Religious Education), Pontifical Catholic University of Puerto Rico, Full Professor.

Marrero Vázquez, Jaime C. MBA (Accounting), University of Puerto Rico; CPA; Full Professor.

Méndez Figueroa, Hilarión. MPA (Public Administration), University of Puerto Rico (RPC); Full Professor.

Pietri de García, Aida. MSC (Computer Science Education), Evansville University, Indiana; MBA, Pontifical Catholic University of Puerto Rico; Full Professor.

Rivera Alvarado, Francisco. Juris Doctor, BBA (Accounting), Pontifical Catholic University of Puerto Rico; CPA; Instructor.

Rodríguez Rivera, Maritza. MBA (Marketing and Management), University of Puerto Rico (RUM); Instructor.

Valero Melgarejo, Hernando. MS Statistical Computing, University of Central Florida; Associate Professor.

Vargas Martínez, Isidro. MBA (Marketing), Inter American University of Puerto Rico; Full Professor.

Vega Castro, Blanca I. DBA (Business Administration), Pontifical Catholic University of Puerto Rico; MBA (Accounting), Pontifical Catholic University of Puerto Rico; CPA; Assistant Professor.

Zayas Ortiz, Héctor I. MBA (Accounting), University of Puerto Rico; Licensed Engineer; CPA; Associate Professor.

LIBRARY FACULTY

Alvarado Cáliz, Daphne. BA (Modern Languages), University of Puerto Rico, Río Piedras Campus; MA (Information and Librarian Sciences), Inter American University, San Germán Campus. Librarian II.

Colón Ocasio, Roberto. BA (History), Pontifical Catholic University of Puerto Rico; MA (Librarian Sciences), New York State University, Albany; MA (History of Puerto Rico and the Caribbean), and Ph.D. (Philosophy and Letters with a Specialty in History of Puerto Rico and the Caribbean), Center for Advanced Studies of Puerto Rico and the Caribbean. Librarian IV.

Cotto Francois, Saulo. BA (Social Well-Being), University of Puerto Rico, Río Piedras Campus; MA (Librarian Sciences), University of Puerto Rico, Río Piedras Campus. Librarian III.

Fowlie de Flores, Fay. BA (History), Calgary University, Canada; MA (Librarian Sciences), University of British Columbia, Vancouver, Canada. Librarian IV.

Ortiz Salichs, Ana M. BA (Social Sciences), Pontifical Catholic University of Puerto Rico; MA (Librarian Sciences), University of Puerto Rico, Río Piedras Campus. Librarian IV.

Vargas Medina, Juan. BA (Political Sciences), Pontifical Catholic University of Puerto Rico; MA (Information and Librarian Sciences), Inter American University, San Germán Campus. Librarian II.

Velázquez Rivera, Nellie. BS (Biology), Pontifical Catholic University of Puerto Rico; Juris Doctor, Pontifical Catholic University of Puerto Rico; MA (Librarian and Technology Information Sciences), University of Puerto Rico, Río Piedras Campus. Librarian III.

BIOLOGY DEPARTMENT FACULTY

Alvarez Ruiz, Migdalia. BS (Biology), University of Puerto Rico, Río Piedras Campus; MS (Biology), University of Puerto Rico, Río Piedras Campus; Ph.D. (General Ecology) University of Puerto Rico, Río Piedras Campus. Full Professor.

Carrasco Serrano, Clara E. BS (Biology), University of Puerto Rico, Río Piedras Campus; MS (Biology) University of Puerto Rico, Río Piedras Campus; Ph.D. (Molecular Biology), University of Puerto Rico, Río Piedras Campus. Full Professor.

Forestier Montalvo, David. BS (Biology), University of Puerto Rico, Mayagüez University Campus; MS (Marine Biology), University of Puerto Rico, Mayagüez University Campus; Assistant Professor.

González González, Ileana M. BS (Biology), University of Puerto Rico, Río Piedras Campus; MS (Biology) University of Puerto Rico, Mayagüez University Campus; Ph.D. (General Marine Microbiology) University of Puerto Rico, Mayagüez University Campus. Assistant Professor.

Moyá Guzmán, Sandra. BS (Biology) University of Puerto Rico, Mayagüez University Campus; MS (Biology) University of Puerto Rico, Mayagüez University Campus. Ph.D. (Entomology) University of Puerto Rico, Río Piedras Campus. Associate Professor.

Navarro Ramas, Kattia M. Degree in Philosophy and Education, Catholic University of Valparaíso, Chile; MS (Biology) University of Puerto Rico, Mayagüez University Campus. Assistant Professor.

Ortiz Vélez, Angel A. BS (Biology) University of Puerto Rico, Mayagüez University Campus; MS (General Food Microbiology) University of Puerto Rico, Mayagüez University Campus; Full Professor.

Reyes Ramírez, Heidi I. BS (Biology) University of Puerto Rico, Mayagüez University Campus; MS (Botany) University of Puerto Rico, Mayagüez University Campus. Assistant Professor.

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Suárez Martínez, Edu. BS (Biology) Pontifical Catholic University of Puerto Rico. Ph.D. in Biomedical Sciences (Molecular Biology) School of Medicine of Ponce, Puerto Rico. Associate Professor.

SOCIAL SCIENCES DEPARTMENT FACULTY

Alicea Caraballo, José L. BA (Sociology), University of Puerto Rico (RPC), MS (Demography) University of Puerto Rico (RCM); MA (Religion), Evangelical Seminar of Puerto Rico; JD, Pontifical Catholic University of Puerto Rico; Full Professor.

Carta Garau, Edoardo. Ph.D. in Political Sciences, Italy State University, Cagliari, Italy; Assistant Professor.

Cordero García, José M. Law Degree, University of Salamanca, Spain; MA (Humanities), University of Salamanca; Full Professor.

Lamboy Pérez, Héctor L. BA (Social Work), MEd (Orientation and Counseling), Pontifical Catholic University of Puerto Rico; Graduate Certificate in Gerontology Theory, University of Puerto Rico (RCM); Full Professor.

Moraza Rivera, Sylvia. BS. (Psychology), Pontifical Catholic University of Puerto Rico; MS (Clinical and Community Psychology), Psychological Institute of Puerto Rico; Ph.D. (Clinical and Community Psychology), University of Puerto Rico (RPC); Associate Professor.

Sánchez Peraza, Luis Raúl. BA (Psychology), MA (Psychology), Ph.D. (Clinical and Community Psychology) University of Puerto Rico (RPC); Associate Professor.

Sepúlveda Santiago Marisel. BS. (Pre-Medicine), University of Puerto Rico in Mayaguez, Ph.D. (Psychology), Pontifical Catholic University of Puerto Rico; Assistant Professor

Silvestrini Muñiz, Jaime. BA (Psychology), MA (Criminology), Inter American University of Puerto Rico; Instructor.

Torres Olivencia, Arelis. BA (Psychology), University of Puerto Rico in Arecibo; PsyD (Clinical and Community Psychology), Carlos Albizu University, San Juan; Assistant Professor.

Veray González, Brunilda. BA (Social Work), Pontifical Catholic University of Puerto Rico; MA (Psychology), University of Puerto Rico (RPC); MS (Clinical and Community Psychology), Ph.D. (Clinical and Community Psychology), Caribbean Center for Postgraduate Studies (Carlos Albizu University), San Juan; Certificate in Geriatrics, University of Puerto Rico (RCM); Full Professor.

Viera Meléndez, Olga M. BA (Political Sciences), Pontifical Catholic University of Puerto Rico; MEd (Orientation and Counseling) Inter American University of Puerto Rico; JD, Pontifical Catholic University of Puerto Rico; Associate Professor.

COUNSELING AND ORIENTATION DEPARTMENT FACULTY

Adaime Maldonado, Yasmín. M.Ed., Juris Doctor, Pontifical Catholic University of Puerto Rico; Counselor III

Atilés Calderón, Jaime L. M.Ed. Pontifical Catholic University of Puerto Rico; Counselor III.

Caraballo Pacheco, Irma. M.Ed. Pontifical Catholic University of Puerto Rico; Counselor III.

Cruz Rivera, Tessie. M.Ed. Pontifical Catholic University of Puerto Rico, Ed.D. Candidate (Counseling and Orientation), Inter American University of Puerto Rico; Counselor II.

Luciano Rodríguez, Manuel. M.Ed. Pontifical Catholic University of Puerto Rico; Counselor II.

Velázquez López, Mary Ann. M.Ed. Pontifical Catholic University of Puerto Rico, Certificate in Traumatology, University of Florida; Counselor II

Villamil Torres, Margarita. M.Ed. Pontifical Catholic University of Puerto Rico, Certificate in Substance Abuse, Central Caribbean University, Doctoral Degree Candidate; Counselor II.

EDUCATION AND PHYSICAL EDUCATION FACULTY

Bahamonde Sánchez, Marta M. MA (Primary Education), Pontifical Catholic University of Puerto Rico, Instructor.

Díaz Salichs, Héctor M. MAE (Physical Education), Inter American University of Puerto Rico; Instructor.

Latorre Rodríguez, Ileana. MEd. (Music), Pennsylvania State University, Instructor.

Pagán Rivera, Carlos H. MAED (Administration and Supervision), University of Phoenix; Associate Professor.

Rivera Caño, Neyla I. MA (Primary Education), Pontifical Catholic University of Puerto Rico, Assistant Professor.

Rivera Lugo, Myrna A. MA (Educational Psychology), Pontifical Catholic University of Puerto Rico, Associate Professor.

Rivera Sánchez, Jesús M. Ph.D (Educational Management), Pontifical Catholic University of Puerto Rico. Associate Professor.

Rivera Toledo, Onix R. MS (Physical Education/Exercise Physiology GPA), Florida State University; Associate Professor.

Rodríguez Rodríguez, Lourdes M. MA (Agricultural Education); University of Puerto Rico in Mayagüez; Assistant Professor.

Rosario Rivera, Juan E. MSA (Educational Technology), Purdue University, West Lafayette, Indiana; Associate Professor.

Sánchez Martorell, Eva. MA (Administration and Supervision), Inter American University of Puerto Rico; Assistant Professor.

Torres Santiago, Lourdes. Ph.D (Curriculum and Instruction), Inter American University of Puerto Rico; Associate Professor.

Vilariño Rodríguez, Ivonne. MA (Curriculum and Teaching), Pontifical Catholic University of Puerto Rico; Assistant Professor.

Zayas Torres, María de L. MA (Public Health-Biostatistics), University of Puerto Rico, Medical Sciences Campus, Instructor.

HEALTH ALLIED STUDIES DEPARTMENT FACULTY

Bahamundi de Jesús, David. MA (Scientific Analysis of Human Body Movement, Inter American University of Puerto Rico, San Germán Campus), BA (Athletic Therapy), University of Puerto Rico in Ponce, Instructor.

Cuevas Guzmán, Félix A. MPT (Physical Therapy) Loma Linda University, California, BS (Physical Therapy), University of Puerto Rico Medical Sciences Campus, Río Piedras, Puerto Rico, Associate Professor.

Encarnación Colón, Enrico. MSAT (Athletic Therapy), Long Island University, New York, Instructor.

Nieves de Lugo, Lourdes. MED (Educational Psychology), Pontifical Catholic University of Puerto Rico; BS (Physical Therapy), University of Puerto Rico, Medical Sciences Campus, Río Piedras, Puerto Rico; Full Professor.

Rodríguez Rodríguez, Fernando A. Ph.D. (Biomedical Sciences, Human Anatomy, and Physiology), School of Medicine, Ponce, Puerto Rico; Full Professor.

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Soto de Silva, Carmen I. MA (Scientific Analysis of Human Body Movement), Inter American University of Puerto Rico, San Germán Campus; BS (Physical Therapy), University of Puerto Rico, Medical Sciences Campus, Río Piedras, Puerto Rico; Assistant Professor.

AD-HONOREM FACULTY

Adames, Jason. PT. Clinical Instructor. Aguada's Physiotherapy Center, Aguada, Puerto Rico.

Adorno, Angel. PT. Clinical Instructor. Physiotherapy at the Mountain, Manatí, Puerto Rico.

Acosta, Lisette. PT. Clinical Instructor.

Alicea, Yara. PT. Clinical Instructor, Wilma M. Vázquez Hospital, Vega Baja, Puerto Rico.

Arocho, Antonio. PT. Clinical Instructor, Physical Therapy Private Office, San Germán, Puerto Rico.

Camacho, Arneris, PT. Clinical Instructor, Auxilio Mutuo Hospital, Hato Rey, Puerto Rico.

Casiano, María. PT. Clinical Instructor, Metropolitan Hospital, Dr. Tito Mattei, Yauco, Puerto Rico.

Cordero Tirado, Nisette. PT. Clinical Instructor, Lares Physical Therapy Center, Lares, Puerto Rico.

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Feliciano, Yolanda. PT. Caribbean Medical and Rehab Corporation

Feliciano, Wilkins, PT. La Monserrate Physical Therapy, Sabana Grande, Puerto Rico.

Fuentes, Wendy. PT. Clinical Instructor, SER of Puerto Rico, Ponce, Puerto Rico.

González, Carmen. PT. Clinical Instructor, Margarita Center, Ponce, Puerto Rico.

González, Sonia. PT. Clinical Instructor, La Concepción Hospital, San Germán, Puerto Rico

Guadalupe Amador, Yadira. PT. Clinical Instructor, Northern Physical Therapy and Sport Medicine Center, Camuy, Puerto Rico.

Lebrón, Ana. PT. Clinical Instructor. AYANNI Center. Moca, Puerto Rico

Lugo, Damaris. PT. Clinical Instructor, Añasco's Physical Therapy Center, Añasco, Puerto Rico.

Montalvo, Carmen. PT. Clinical Instructor. Sor Isolina Ferré Center. Ponce, Puerto Rico.

Morales Luis. MPT. Doctor Pila Hospital, Ponce, Puerto Rico.

Ocasio, Ana Nilsa PT. Clinical Instructor, ESPIBI Center, Mayagüez, Puerto Rico.

Otero, Sylvia. PT. Clinical Instructor, BOAZ Physical Therapy Center, Arecibo, Puerto Rico

Pizarro Nilda, PT. Clinical Instructor, Dr. Dereck Colon Lopez—Office, Ponce, Puerto Rico.

Ponce de León, Irma. MPT. Clinical Instructor, Irma Ponce de León Rehabilitation, Yauco, Puerto Rico.

Portalatín, Elizabeth. PT. Clinical Instructor. Renacer Physical Therapy Center, Hatillo, Puerto Rico.

Quiñones, Zenaida. MPT. Clinical Instructor, Quality Physical Therapy Center, Mayagüez, Puerto Rico.

Ramos, María. PT. Clinical Instructor, Santa Rosa Hospital, Guayama, Puerto Rico.

Rivera, Carlos J. PT. Clinical Instructor, Physiotherapy and Sports Health Center, San Juan, Puerto Rico.

Rivera, Regina, MPT. Clinical Instructor, San Sebastián Physical Therapy Center, San Sebastián, P. R.

Rivera, Irisel, MPT. Clinical Instructor. Bella Vista Hospital, Mayagüez, Puerto Rico

Rodríguez, Ana. PT. Clinical Instructor, Southern Therapeutic Center. Ponce. PR.

Rodríguez, Héctor. PT. Clinical Instructor, Mountain Physiotherapy and Rehabilitation Clinic, Utuado, Puerto Rico.

Rodríguez, Lydia. PT. Clinical Instructor, Doctor Pila Hospital, Ponce, Puerto Rico.
Roque, Juan C., Veterans Hospital, Ponce, PR.
Rosado, Brenda. PT. Clinical Instructor, Center for the Aid of Handicapped Children Institute of Isabela, Inc., (CANII) Isabela, Puerto Rico.
Rosado, Waleska. PT. Clinical Instructor. Hermanos Meléndez Hospital, Bayamón, Puerto Rico.
Santiago, Roberto. PT. Clinical Instructor, Physical Concept Private Office, Guayama, Puerto Rico.
Soto, Ivette, PT, Clinical Instructor. Yabriel Physical Therapy Clinic, Lares, Puerto Rico.
Soto, Omar. PT, Clinical Instructor. Alivius Therapy, Aguadilla, Puerto Rico.
Torres, Josefina. PT. Clinical Instructor, Añasco's Physical Therapy Center, Añasco, Puerto Rico.
Vargas, Astrid. PT. Clinical Instructor, Moca's Physical Therapy Center, Moca, Puerto Rico.
Vázquez, Awilda. PT. Clinical Instructor, Juana Díaz Physical Therapy Center, Juana Díaz, Puerto Rico.
Velázquez, Dimaira. MPT. Clinical Instructor, Cerebral Palsy Center, Ponce, Puerto Rico.
Vélez, Marisol. PT. Clinical Instructor. Physical Medicine and Electro diagnosis Clinic, Aguadilla, Puerto Rico.
Cruz, José Javier. PT. Clinical Instructor, SIRO Your Therapy Center, Hormigueros and Ponce, Puerto Rico.
Zayas Rodríguez, Eloísa. PT. Clinical Instructor, Mountain Physical Therapy Center, Naranjito, Puerto Rico.

SPANISH DEPARTMENT FACULTY

Acosta Cartagena, Alma I. MA (Hispanic Studies), University of Puerto Rico (RPC); Full Professor.

Arzola Rivera, Edda L. MA (Hispanic Studies), University of Puerto Rico (RUM); Associate Professor.

Ciordia Muguerza, José Javier. Doctorate in Philosophy and Letters (Educational Sciences), Pontifical University of Salamanca, Spain; Ph.D. (Hispanic Studies), University of Puerto Rico (RPC); Full Professor.

López Álvarez, Carmen Ángela. MA (Hispanic Studies), Pennsylvania State University; Ph.D. (Hispanic Studies), Pennsylvania State University; MA (Public Administration), Syracuse University; Associate Professor.

Madera Cabán, José Víctor. Ph.D. (Hispanic Studies), University of Puerto Rico (RPC); Assistant Professor.

Martínez Santiago, Luz Ivette. MA (Hispanic Studies), Pontifical Catholic University of Puerto Rico; Ph.D. (Hispanic Studies), University of Puerto Rico (RPC); Full Professor.

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