# Catalog 2022-2026



### CATALOG 2022-2026



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### NOTE

The data contained in this Catalog are those in effect and valid for the academic years 2020-2021 and 2021-2022. The University of Puerto Rico in Ponce reserves the right to modify the information in this catalog, by order of the corresponding university authorities, regarding the calendar, the academic offer, the academic programs, the tuition fees and-others-institutional norms, among others, due to circumstances that may occur eventually.

The University of Puerto Rico at 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 U.S. Department of Education and the Council for Higher Education Accreditation.

The Catalog is available at: http://www.uprp.edu.

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## General Information



### PART I. INFORMATION

### HISTORICAL BACKGROUND

The University of Puerto Rico was established in 1903. It has an historical antecedent, the University of General Studies of Santo Tomás de Aquino founded in San Juan by the Dominican Order in 1532, the San Ildefonso Seminary and the Institution of Teaching Secondary School of Puerto Rico, created in 1888, under the auspices of the Puerto Rican Athenaeum. It began as a public school for the preparation of teachers established in Fajardo in 1900 and moved to Río Piedras in 1902. In 1903, this school was incorporated by law as the University of Puerto Rico. At that time, it started its operations with 154 students. The University of Puerto Rico has gradually grown into a multi-campus system.

Currently, the University of Puerto Rico has eleven units located throughout the island. These are: Río Piedras, Mayagüez, Medical Sciences, Ponce, Cayey, Humacao, Arecibo, Bayamón, Aguadilla, Carolina and Utuado. Currently, it serves a population of over 60,000 students.

The University of Puerto Rico at Ponce was inaugurated under the name Ponce Regional College on August 23, 1970 under the University Law of 1966 and in line with Law 75 of June 19, 1961. Its initial faculty was 24 professors and 361 students, from the different municipalities of the Southern Region of Puerto Rico. The curricular component included technical courses in Accounting, Computer Science, Architectural Delineation, Business Management, Industrial Management, Refrigeration and Air Conditioner, Civil Engineering Technology, Physical Therapy, Occupational Therapy and general education courses corresponding to the first years of Bachelor of Arts or Sciences. In the years 1972 and 1976, the courses corresponding to the Associate Degrees in Secretarial Sciences and Automotive Technology were added, respectively. In 1973, the Associate Degree in Arts and Sciences began to be awarded to Transfer students.

In 1982, through Certification number 170, Series 1981-82, of the Puerto Rico Board of Education, the name of the institution was modified to Technological University College of Ponce (CUTPO) and incorporated the Baccalaureate in Business Administration and Baccalaureate in Secretarial Sciences programs to the existing academic offer. During 1985, the Bachelor of Arts in Elementary Education and the Bachelor of Technology in Computer Science began to be offered, with specialization in Computer Information Systems.

In August 1992, the Honors Study Program for talented students was started. That same year the Baccalaureate in Athletic Therapeutics began to be offered. The Adult Night University (UNA) began in 1993.

In 1998 the bachelor's degree in forensic psychology and in Psychology and Mental Health began to be offered. That same year, Certification Number 151 (Series 1997-98) from the Board of Trustees grants autonomy to CUTPO, effective July 1, 1998. This modifies the name of the institution to University College of Ponce. Autonomy brought with it administrative changes; among these the function of the Chancellor, Academic Senate and the Administrative Board are incorporated, bodies that offer participation in decisions to the university community.

In 2001 the Board of Trustees approved the establishment of the Baccalaureate in Natural Sciences with concentrations in Biomedical and Biology with sub-concentrations in Biodiversity Assessment, Biotechnology and Coastal Marine Environment Assessment.

The evolution of the infrastructure has been gradual. It is important to highlight that, at the beginning, the classrooms, laboratories of Biology, Chemistry and Physics, the Library, the Assembly Hall and the areas of Maintenance and Administration, were located in ten provisional buildings. In 1974, the first permanent building and a modern theater with capacity for 500 people were built. In addition, the physical facilities were expanded with two additional buildings, one with nine classrooms and one for professors' offices.

During the academic year 1973-1974, work began on the development of permanent buildings. In 1979 the Library, the Student Center, classrooms, two amphitheaters and various laboratories were built. In 1980, the areas were moved to the new facility. In 2000, the Board of Trustees changed the name of the College to the University of Puerto Rico at Ponce. In that same year the Víctor M. Madera Multipurpose Building was inaugurated. In this way, the university campus expanded its character as a facilitator of procedures for the population it serves. In 2000 the Athletic Program of our School was inaugurated.

In 2002 the library building was named after its first Director, Adelina Coppin-Alvarado (Cert. 064-2001-2002 of the Board of Trustees of the UPR). In 2008 the building reopened its doors after being completely remodeled to expand bibliographic services and be at the forefront with technological advances.

In 2005, within the context of the centennial of the University of Puerto Rico, the Ponce unit was endowed with the *Recta Ratio*, a monumental sculpture piece by the Catalan José María Texidor. This piece became the official logo of the University of Puerto Rico at Ponce (Certification 2008-2009-59 of the Administrative Board).

Antonio García Padilla, Esq., President of the UPR (2001-2009), together with his body of Chancellors, presented for the consideration of the university system the project called *Ten for the Decade: Agenda for the Planning of the UPR* (2006-2016). The agenda is a comprehensive academic and administrative development plan, created with the purpose of evaluating and planning the processes to update them and strengthen the capacity to train professionals and the development of the competitive knowledge that the country needs.

After its approval by the Board of Trustees of the UPR (Cert. 123, 2005-2006), the formulation of the Operational Plan of the document began in all units of the System.

To comply with the standards of excellence and strengthen the academic offer, among its emblematic projects, the UPR-Ponce focused on the process of professional accreditation of the academic programs susceptible to it, while maintaining those accredited.

The University of Puerto Rico reaffirms itself as the Premier Teaching Center in the Country with the development of a new vision with the Strategic Plan 2022-2026 which ratifies the mission, the fundamental values, and vision. It also highlights its commitment to appraisal, continuous improvement and the highest standards of quality, ethics and institutional integrity. In that sense, the UPR-Ponce established its UPR Vision plan in Ponce 2021-2026. This plan is aimed at serving as a frame of reference to fulfill the mission of our institution. In times of constant changes and challenges, an effective strategic plan, together with the commitment of everyone from the university community, represents the formula for success to achieve the proposed goals. At the UPR in Ponce, the love of knowledge, creative dialogue and discussion of the truth are fostered

within the broadest academic freedom. In addition, we seek the full formation of the student in accordance with the social and economic challenges imposed on us by the new times.

On August 23, 2020, the University of Puerto Rico at Ponce, celebrated its **50 Years** of tradition of academic excellence, and as the only institution of higher education of the University of Puerto Rico in the southern part of the island.

In April 2022, the Office of Registration and Licensing of Educational Institutions of the Department of State of Puerto Rico approved the amendment to the Renewal License of the University of Puerto Rico in Ponce to offer in the modality of distance learning the programs of Bachelor Degree in Business Administration with a concentration in Management and Bachelor Degree with a concentration in Marketing. This marks the beginning of distance education in our unit and validates the commitment of the University of Puerto Rico in Ponce to provide an education of excellence and in accordance with the labor demand.

### THE UNIVERSITY OF PUERTO RICO AT PONCE TRADITION OF ACADEMIC EXCELLENCE

The University of Puerto Rico at Ponce is based on 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 institution of higher education of the University of Puerto Rico in the Southern area of the Island that offers Programs of Associate Degrees, Baccalaureates and Articulated Transfers. Its graduates have contributed greatly to the economic transformation of Puerto Rico.

Currently, bachelor's degrees are offered in Business Administration, Office Systems, Computer Information Systems Sciences, Elementary Education, Athletic Therapeutics, Forensic Psychology, Psychology and Mental Health, Biology and Biomedical. The University of Puerto Rico at Ponce is committed to meeting the academic needs of its students and the community of the region it serves.

Students participate in competitions, projects, conventions, and exchange programs in Puerto Rico and elsewhere, such as: PRISE Program, Intercollegiate Mathematics Olympics in the area of calculus, International Studies and Student Exchange Program, Congressional Exchange Programs in Washington, Annual Convention of Honor Programs, Summer Study Trip Program, Choir Festivals, among others.

Graduates of the University of Puerto Rico in Ponce have been very successful in passing licensing exams and revalidations of different professions. In addition, professors constantly stand out for their creative and research production that enriches and strengthens the quality of teaching.

The Dean of Students recognizes a wide variety of student organizations that foster leadership and planning skills. Some of the organizations are: Alpha Computer Association, American Marketing Association, Flag Bearers Student Association, Student Band Association, Accounting Students Association, Psychology Students Association, Chemistry and Physics Students Association, Mathematics Students Association, Athletic Therapeutics Student Association (AETA), Physical Therapy Students Association (AETFI), Association of Students of the Honor

Studies Program, Association of University Photographers, Association of Office Systems, Association of Future Engineers and Architects, Finance Students Association, Christian University Youth, Organization Knocking Down Barriers Student Association, *Mascara* Productions, Athletic Society, Honorary Society of Biology, Society for Human Resources Management, among others.

In the area of athletics, our students have been proclaimed champions in men's and women's tournaments of the Interuniversity Sports Organization (ODI) and in the Relay Championship of University Athletics. Currently, the University is a member of the Interuniversity Athletic League (LAI).

The University of Puerto Rico at Ponce has a campus with a warm atmosphere, a curriculum of excellence and support services that encourage its students to be successful in a complex world, globalized economy and challenges of ethical and citizen valuation.

### **ACCREDITATION**

The Middle States Commission on Higher Education first accredited the University of Puerto Rico at Ponce in 1976. It has renewed its accreditation every ten years: in 1985, in 1995, 2005 and in 2015. In 2016 there was the reaccreditation visit and in 2019 there was the reaffirmation process. In addition, it holds the license granted by the Board of Postsecondary Institutions (JIP), renewed in 2016.

What stands out is the fact that various academic programs have been inserted in the process of professional accreditation, which gives them a symbol of excellence.

Currently, several programs have a professional accreditation among which are the following: the Elementary Education Program is accredited by CAEP, the Business Administration and Office Systems Program by ACBSP, In the case of the Bachelor of Science in Computer Information Systems program by ABET-CAC, the information is as follows:

The Bachelor of Science in Computerized Information Systems program is accredited by the Computer Accreditation Commission of ABET, <a href="https://www.abet.org">https://www.abet.org</a>, under the General Criteria and Program Criteria for Information Systems and Similarly Named Computing Programs.

The Associate Degree in Civil Engineering Technology in Construction Program, Associate Degree in Industrial Engineering Technology Program, and the Associate Degree in Civil Engineering Technology in Architectural Drafting programs are accredited by the Engineering Technology Accreditation Commission of ABET, <a href="https://www.abet.org">https://www.abet.org</a>, under the General Criteria for Accrediting Technology Programs.

The fact that various academic programs have been inserted into the professional accreditation process stands out, which gives them a distinction of excellence. Currently, several programs have professional accreditation among which are the following: the Elementary Education Program is accredited by CAEP, the Business Administration and Office Systems Program by ACBSP. In addition, the Department of Counseling and Psychological Services is professionally accredited by IACS and the Library in turn is recognized by ALA. These accreditations and professional recognitions are in addition to the accreditation of the Middle States Commission on

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Higher Education (MSCHE) and the granting of license by the Board of Postsecondary Institutions (JIP), to guarantee quality to the academic offerings of the University of Puerto Rico in Ponce.

The academic excellence that maintains the professional accreditation standards is accompanied by a culture of both teaching and student research. Both components have their particular congress to disseminate research efforts.

### VISION, MISSION, INSTITUTIONAL VALUES AND GOALS

### Vision

(Academic Senate Certification 2006-2007-52)

To be the university center of Puerto Rico that most effectively promotes the development of its student's potential so that they contribute significantly to the well-being of the country.

### Mission

(Academic Senate Certification 2013-2014-49)

"The University of Puerto Rico at Ponce is a teaching institution dedicated to the intellectual, humanistic, scientific, cultural and ethical development of its students. Committed to the integral formation of citizens and professionals trained to contribute to a global society as critical, creative, integral leaders, aimed at continuous learning and community service. It promotes in its environment equitable access, academic rigor, enriching educational activities, quality support services, which converge in a graduate with a profile of excellence.

The University of Puerto Rico at Ponce promotes in all of its tasks a democratic environment, in solidarity with academic freedom, excellence, integrity, respect, tolerance, creation and research.

### Institutional Value

(Academic Senate Certification 2007-2008-50)

- Academic freedom The UPR-Ponce respects the right to teach with objectivity and honesty, the dissenting criteria, and the duty to impart knowledge through pedagogical procedures identified with the ethics of teaching and the search for truth.
- Excellence UPR-Ponce is distinguished by high quality teaching, continuous improvement, erudition, and the highest standards of service.
- **Respect** The UPR-Ponce distinguishes itself by recognizing the dignity of the human being and promotes a climate where the community can express itself freely.

Respect is demonstrated by a commitment to act ethically, to recognize differences and the exchange of ideas and decisions.

- Integrity UPR-Ponce promotes ethical and respectful practices through teaching, healthy administration, the correct use of technology and interpersonal relationships. In addition, the Institution is committed in its policies and practices to the search for truth, for the formation of integral and professional beings who contribute positively to society.
- Communication and participation UPRP-Ponce is distinguished by maintaining open channels of expression that allow constructive dialogue and the active participation of its members in university affairs.
- **Commitment** UPR-Ponce is committed to achieving its goals and objectives and fulfilling its mission.
- Equity The UPR-Ponce promotes equality in education, employment and in the provision of services without discriminating based on race, color, sex, birth, age, origin or social status, ancestry, marital status, religious or political ideas or beliefs, gender, sexual preference, nationality, ethnic origin, veteran status of the Armed Forces or physical disability.

### **Institutional Goals**

(Academic Senate Certification 2008-2009-59)

- 1. Develop professionals with the knowledge, skills and dispositions necessary to contribute responsibly to their social, cultural and environmental environment.
- 2. Offer and develop study programs leading to associate degrees and baccalaureates, as well as transfer programs and other enriching educational experiences tempered to the current needs of society.
- 3. Cultivate knowledge through creation, research, and dissemination.
- 4. Provide professional development opportunities to faculty and non-teaching staff so that they contribute to improving and maintaining institutional quality.
- 5. Strengthen teaching services to promote an optimal environment for teaching and learning.
- 6. Provide support services to the student that, in collaboration with the academic phase, facilitate the adjustment to university life, the enrichment of the educational experience and academic success.

- 7. Promote an effective articulation of university work between the administration, students, teachers, non-teaching personnel and the community for the optimal development of academic offerings.
- 8. Promote an effective process of planning and allocation of resources based on its mission and goals; and use the results of the institutional assessment for continuous improvement.

### **GRADUATE PROFILE**

(Academic Senate Certification 2013-2014-59)

The student who graduates from the University of Puerto Rico in Ponce will have the following characteristics:

- 1. Ability to communicate effectively, orally and in writing, in Spanish and English.
- 2. Ability to pose and solve problems that require the application of quantitative and qualitative analysis.
- 3. Knowledge of research skills to collect, analyze and interpret information from various sources.
- 4. Knowledge of information and communication technologies (ICT), ability to analyze, organize information and knowledge to apply in problem solving.
- 5. Development of logical and critical thinking.
- 6. Capacity and willingness for self-learning, independent study and teamwork.
- 7. Knowledge of some of the most relevant products of human creativity.
- 8. Understanding of the main social, historical, and economic problems of their environment and the contemporary world.
- 9. Knowledge and cultivation of ethical, civic and aesthetic values for decision-making.
- 10. Willingness to promote solidarity, tolerance, freedom and democracy.

### SYMBOLS OF THE UNIVERSITY

### **COAT OF ARMS**



Our coat of arms, crowned and divided in four sections emblem, preserves the constituent elements of the original emblem of the Regional College of the University of Puerto Rico in Ponce, created in 1970. These are: Minerva, the Roman goddess of wisdom; the Ponce Lion; the centennial kapok tree and the mountains that surround the city and are part of its topography.

### **First Section**

This section contains the golden tower that symbolizes the University of Puerto Rico whose color means understanding, respect and virtue. Its green field represents the academic freedom and autonomy that it enjoys.

The stairway with the Book of Knowledge and the Lamp of Wisdom are symbols of the of Regional Colleges Administration of the University of Puerto Rico. The red color in the background symbols devotion to the country.

### **Second Section**

Rogelio, the University mascot, occupies a prominent place on the bridge of the coat-of-arms of Ponce. Rogelio holds a "dias nostrum" representing the Health Allied Sciences, the core area of several of the institution's programs. The red and black field crossed by a diagonal white stripe represents the colors of the College, which are also the traditional colors of Ponce.

### **Third Section**

The goddess Minerva, symbol of wisdom, and whose color is silver, takes its place at the top of the ladder of truth (path), whose steps we must climb with determination and tenacity represented by the blue color of the sky that shelters them. Mount *Vigía*, icon of the alertness of Ponce, and the central mountain range completes this section.

### **Fourth Section**

The *Ceiba*, the centennial kapok (*Ceiba Pentandra*) tree of *Cuatro Calle* and the Portuguese River – represents Ponce at its best. This section symbolizes the programs offered by the College represented by the cogwheel of industry (Industrial Engineering), the reel of computer tape (Business Administration, Computer Information Systems and Office Systems), chart and compass (Civil Engineering and Architectural Delineation) and the atomic orbit (Natural Sciences).

The lamp of wisdom and the book of knowledge that represent Education are attached to the symbol of the Regional Colleges Administration. The emblem is adorned by a branch of a coffee tree and sugar cane in bloom, agricultural products that gave much wealth to Ponce. The crown in the form of a five-towered castle symbolizes the rank of city that Spain conferred to Ponce in 1577.

This emblem has a rich historical, cultural and educational symbolism. It represents the commitment made by the University to offer its students an education of excellence that qualifies them for honorable service to the country. It was approved by the faculty of the University of Puerto Rico in Ponce in an assembly held on September 15, 1992.



### LOGO

(Administrative Board Certification 2008-2009-59)

### Recta Ratio

Monumental sculpture piece by the Catalan José María Texidor.



### COLORS

**Red** and Black Always!

They represent the colors of the institution, which are also the traditional colors of Ponce.

### **MASCOT**

### Rogelio the Lion



### **HYMN**

Another symbol of the University is the **Anthem** whose lyrics and music were authored by Griselle Báez Muñoz and the 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 SYSTEM DIRECTORY



Central Administration Jardín Botánico Sur 1187 Calle Flamboyán San Juan, PR 00926-1117 Tel. (787) 250-0000



Río Piedras Campus PO Box 21907 San Juan, PR 00931-1907 Tel. (787) 764-0000



Mayagüez Campus PO Box 9000 Mayagüez, PR 00681-9000 Tel. (787) 832-4040



Medical Sciences Campus PO Box 365067 San Juan, PR 00936-5067 Tel. (787) 758-2525



UPR in Humacao Ave. José E. Aguiar Aramburu Humacao, PR 00791 Tel. (787) 850-0000



UPR in Cayey Avenida Antonio R. Barceló Cayey, PR 00736 Tel. (787) 738-2161



UPR in Arecibo PO Box 4010 Arecibo, PR 00613-4010 Tel. (787) 815-0000



UPR in Bayamón 170 Carr. 174 Parque Industrial Minillas Bayamón, PR 00959 Tel. (787) 993-0000



**UPR in Ponce**Apartado 7186
Ponce, PR 00732-7186
Tel. (787) 844-8181



UPR in Aguadilla PO Box 250160 Aguadilla, PR 00604-0160 Tel. (787) 890-2681



UPR in Carolina PO Box 4800 Carolina, PR 00984-4800 Tel. (787) 257-0000



UPR in Utuado PO Box 2500 Utuado, PR 00641-2500 Tel. (787) 894-2828

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CPA Luis J. Torres Llompart Vice-president

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Representative Secretary of Education of Puerto Rico

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Lic. Antonio Monroig Malatrassi

Dr. Hermán Cestero Aguilar

Dr. Jorge Valentín Asencio

Dr. Mayda Velasco Bonilla

Ing. Emilio Colón Beltrán

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Dr. Luis A. Ferrao Delgado President

### UNIVERSITY OF PUERTO RICO AT PONCE

Dr. Tessie H. Cruz Rivera Chancellor

### ADMINISTRATIVE BOARD

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Dean of Administrative Affairs Dr. Isaac Colón Degró

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> Prof. David Bahamundi De Jesús Board and Senate Executive Secretary

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Department Administration of Office Systems and Technology

Department of Chemistry and Physics

**English Department** 

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Sen. Héctor Díaz Salich

-

Sen. Juan C. García Ellín

Sen. Leonardo Morales Tomassini

Spanish Department Engineering Department

Department of Allied Health Studies

Department of Education and Physical Education

Department of Humanities Department of Social Sciences Department of Mathematics

### **Student Senators**

Sen. Edward J. Maldonado Rosa Acting President of the Student Council

> Sen. Gabriela Piña Ramos Elected Student Senator

> > \_

Representative to the Administrative Board

Sen. Derek Medina Pérez Representative before the University Board

### Representatives of the Academic Senate before the Administrative Board

Sen. Fernando A. Rodríguez Rodríguez Sen. Wilfredo Ayala López

### Representative of the Senate to the University Board

Sen. Edda Rodríguez Tomassini

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Dr. Joahana Ramos Virola Associate Dean of Academic Affairs

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Office Systems Administration and Technology

Dr. Jay O. Soto Library

Dr. Gloria M. Rojas Vázquez Biology

Dr. Jennifer Alicea Castillo Social Sciences

Dr. Marilia Villafañe Santiago Education and Physical Education

Dr. Ana M. Nadal Quirós Spanish

Prof. Enrico Encarnación Colón Allied Health Studies

Dr. Ana M. Nadal Quirós Humanities
Prof. Antonio Zaragoza Rodríguez Engineering
Prof. Regino Megill Segarra English

Dr. María de L. Zayas Torres Mathematics

Dr. Milton E. Rivera Ramos Chemistry and Physics

Dr. Miguel Torres Pérez Honor Programs

Dr. Eva M. Cabán García Continuing Education and Professional Studies Division

Prof. Maribel Capote University Night School Program

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Mr. Aníbal Montes Mercado Athletic Activities Office

Extracurricular Activities Office

Ms. Anayarí Batista Rodríguez Admissions Office

Ms. Vanessa Vélez Segarra Financial Assitance Office

Ms. Mariliz Ramos Pagán Technological Assistance Office

Prof. Orlando Rivera Vázquez Band

Quality of Life Office

Dr. Marisel Ramírez Rivera Counseling and Psychological Services

Prof. Brandon L. Torres Soto Choir

Ms. Joanne E. Valls Cornejo

Ms. Marya Santiago Cancel

Dr. Yiselle López Ortiz

Alumni Office

Registration Office

Medical Services

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- Purchasing Agent

Mr. William Bermejo Rodríguez University Guard Supervisor

Mr. Adalberto Torres Segarra

Ms. Romarie Mesa Maldonado

Ms. Acmin Velázquez Rivera

Print Shop Supervisor

Finance Office Director

Payroll Office Director

Mr. Carlos Rodríguez Meléndez Property Agent

Ms. Kiyomi A. Santos Vega Bursar

Dr. Ericka Rodríguez Quiñones Human Resources Director

Arq. Alberto García Torres Physical Resources

Ms. Celia González Burgos Health & Safety Officer

### **CHANCELLOR'S OFFICE**

Dr. Tessie H. Cruz Rivera Chancellor

Prof. Carmen A. Bracero Lugo Special Assistant to the Chancellor

Ms. Merlyn I. Loyola Torres Audit Coordinator

Mr. Gaddiel Morales Olivera, Esq Legal Advisor

Ms. Damarys Hernández Pabón Office of Information Technology

Mr. Alberto Rentas García Pre-School Development Center

Dr. Yesenia Quiñones Cruz Equal Employment Opportunity Office

Mr. Carlos E. Franceschi Zayas Budget Office

Dr. Diana M. López Robledo Office of Planning and Institutional Studies

Dr. Leisha Martínez Colón External Resources and Development

Prof. Federico Irizarry Natal Ceiba Magazine

Dr. José V. Madera Cabán Student Advocate

Dr. Licelott M. Maldonado Noboa Employee Assistance Program Employee Assistance Program

### OTHER ADMINISTRATIVE OFFICIALS

Capt. Rafael Santiago López Military Sciences

### OFFICE OF PLANNING AND INSTITUTIONAL STUDIES

The Office of Planning and Institutional Studies (OPEI) is ascribed to the Chancellor's Office. In the context of its mission, the main functions of the Office are framed in five programmatic areas: Planning, Institutional Research, Appraisal, Institutional Accreditation, and Statistics. The programmatic areas are responsible for: coordinating and evaluating the institutional planning processes framed in the strategic plan; design, conduct and disseminate institutional studies and research; coordinate, advise, document and disseminate student learning appraisal activities, student support services and administrative processes; coordinate the institutional accreditation and licensing processes with the *Middle States Commission on Higher Education* and the Board of Postsecondary Institutions and offer support in professional accreditations; and provide the necessary statistical data for the different institutional processes and the different agencies that request it.

### Mission of the Office

The Office of Planning and Institutional Studies contributes to advancing the mission of the UPR in Ponce by coordinating and actively collaborating with the institutional processes of planning, accreditation, licensing, institutional research, and appraisal. It supports the institution in carrying out a continuous process of planning and allocation of resources that is based on its mission and that makes use of the results of the institutional appraisal to renew itself.

### Goals

- 1. Facilitate and promote planning processes.
- 2. Coordinate research and institutional appraisal.
- 3. Provide users with concise, accurate and timely data and information.
- 4. Encourage the use of information and appraisal results.
- 5. Respond to requirements, both internal and external, for data and information, effectively and ethically.
- 6. Provide support and advisory services to faculty, students and staff of support offices in the development of research, appraisal and accreditation activities.

### OFFICE OF EXTERNAL RESOURCES AND DEVELOPMENT



The Office of External Resources and Development was established to lead important initiatives in the process of increasing the institution's fiscal resources. This is the umbrella office through which the external resources initiative services are coordinated and provided.

Our vision is to become the leading higher education institution in the Southern region of Puerto Rico by presenting and developing projects aligned with the UPR-Ponce Strategic Plan, UPRP Vision 2021, and the UPR Strategic Plan 2017-2022, as a contribution to fill the need for a highly trained and visionary workforce, which contributes positively to the socioeconomic development of the region, of the country and the world.

Our commitment and mission is to work intensely and systematically in the process of discovering existing resources in federal, state and local agencies, as well as within the private sector in foundations or industries, increasing the possibilities of obtaining economic grant to develop projects that strengthen the teaching-learning process, the quality of life of the members of the university community and society, as well as the physical, academic and research infrastructure.

Our role is to provide information to teaching and non-teaching staff on existing opportunities to obtain economic subsidy to develop projects aimed at achieving academic and research excellence and that promote academic and professional growth. Our staff offers technical assistance, support in the preparation of proposals, and in the identification of external funds; in the conceptualization of the projects and in the various stages in the development of the proposal, including form and style tempered to the guides of each sponsoring agency; in the preparation and procedure to submit the proposal by electronic means and follow-up until we receive the response of approval of the proposal. Likewise, we develop procedures and recommend policies that allow a healthy administration of the projects in compliance with the federal, state, and institutional regulations in effect.

### **CEIBA MAGAZINE**

The *Ceiba* Magazine of the University of Puerto Rico in Ponce began publication in 1973, three years after the founding of the College.

Its pages are the vehicle of expression of the intellectual work of the Faculty of the University of Puerto Rico in Ponce. It publishes research, creative texts, articles on various topics from the professors from our institution. In addition, this space has accommodated other writers from different units of the System and the Country.

Ceiba is an annual publication of varied and interdisciplinary themes: literature, psychology, sociology, biology, chemistry, criticism and interpretation, history, economics, education and philosophy. The journal consists of the following sections: Articles, Creation, Reviews and Mirador Ponceño. The latter fulfills the objective of disseminating cultural aspects of our institution or Ponce. We can also highlight that Ceiba has sponsored the presentation of writers such as the Nicaraguan Sergio Ramírez and the Dominican Pedro Antonio Valdez, as well as the Puerto Ricans Edgardo Rodríguez Juliá, Silvia Álvarez Curbelo, Antonio Martorell and Roberto Ramos Perea, among others. Ceiba participates, in turn, in discussion forums on relevant aspects of academic journals in different institutions.

In 2006, *Ceiba* achieved the recognition of Latindex, which represents a professional achievement while internationalizing it. Its insertion into the Latindex Catalog materializes with the Publication Year 5, No.2, (second season) August – May 2006. Latindex is an information system on scientific research, technical-professional, and scientific and cultural dissemination journals that are published in the countries of Latin America, the Caribbean, Spain and Portugal. It also joined the University Indexing Consortium (Conuco). The Index includes all the articles that have been published in the Journal since its appearance (First period) in 1973 until 2006. Indexing is by topic, author and by subject.

Its dissemination is international. We send it to the different libraries to institutions in Puerto Rico and the United States; and we have exchange arrangements with local and international magazines. In addition, *Ceiba* has a virtual presence, so its issues are available on the Academic Journals Portal of the University of Puerto Rico (UPR) through the following address: <a href="https://revistas.upr.edu/index.php/ceiba/issue/archive">https://revistas.upr.edu/index.php/ceiba/issue/archive</a>.

### **ACADEMIC OFFERINGS**

The academic offer of the University of Puerto Rico in Ponce consists of bachelor's degrees, associate degrees, and articulated transfer agreements.

BACCALAUREATES	CODE
Biology with areas of emphasis on: Biotechnology Biochemistry Coastal Marine Environment Evaluator Biodiversity Evaluator Tropical Medicine and Global Health	1202
Biomedicine	
Computer Sciences in Computerized Information Systems Accounting Finance Management Marketing Elementary Education Forensic Psychology with areas of emphasis on:	1231 4004 0302 0304 0305 0311 0419 1619
Forensic Psychology Rehabilitation Services	
Psychology and Mental Health with areas of emphasis on: Psychology and Mental Health Rehabilitation Services	1620
Office Systems and Technology Administration Athletic Therapy	0318 0715
ASSOCIATE DEGREES	
Civil Engineering Technology in Architectural Delineation Civil Engineering Technology in Construction Entrepreneurship and Administration Technology in Industrial Engineering Physical Therapy	2005 2009 0341 2010 2403
ARTICULATED TRANSFER PROGRAMS UPR MAYAGÜEZ C	AMPUS
Surveying and Topography Education Mathematics Civil Engineering Computer Engineering Electric Engineering Industrial Engineering Mechanical Engineering Chemical Engineering Mathematics	0506 1222 0501 0507 0502 0503 0504 0505 1205

Physical Sciences Theoretical Physics Mathematics in Computer Sciences Chemistry	1207 1208 1220 1204
ARTICULATED TRANSFER PROGRAMS UPR RÍO PIEDRAS CA	AMPUS
Anthropology Political Sciences Social Sciences Drama (Theater) Economy Secondary Education Physical Education Teaching English to Spanish Speakers (TESS) Physics Mathematics Chemistry Art Theater Hispanic Studies Philosophy Geography Art History English Comparative Literature Music Sociology Elementary Education Special Education	1607 1604 1616 0911 1603 0409 0411 0405 0404 0403 0412 0417 0909 0908 1608 0915 0907 0901 0910 1606
ARTICULATED TRANSFER PROGRAM UPR CAYEY CAMPUS	
Secondary education Natural Sciences Physical Education English  ARTICULATED TRANSFER PROGRAMS UPR HUMACAO	0401 5806 0414
Industrial Chemistry	1210

## General University Regulations



### PART II GENERAL UNIVERSITY REGULATIONS

### RESPONSIBILITIES AND RIGHTS OF STUDENTS

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 tradition also recognize their responsibility as participants in assuming and maintaining order, security, and norms that regulate academic life. These rights and responsibilities and the disciplinary procedures related to violations are specified in the General Student Regulations of the University of Puerto Rico, Certification No. 13-2009-2010 Amended by the Board of Trustees of the University of Puerto Rico. These regulations are available to all students and the general public at the Dean of Students' office.

### DISCIPLINARY RULES AND PROCEDURES

Certification No. 13-2009-2010 as amended by the Board of Trustees of the University of Puerto Rico establishes in Chapter IV the disciplinary rules and procedures regarding student conduct. The purpose of these rules and procedures is: To promote order and the best institutional and intellectual environment, honesty, integrity, and to guarantee the safety of life, health and property of the institution and the members of the university community, to guide and educate the student about the consequences of their actions, guide and educate the student about their responsibility to the community and offer the student the opportunity to modify their behaviors so that they can participate appropriately in the life of the university community. Chapter IV in its Article 6.2 establishes and defines: student conduct subject to disciplinary sanctions among which are: academic dishonesty, fraudulent conduct, damage to university property, improper use of university property, obstruction of tasks and activities, obstruction of free access to facilities, conduct against persons, commission of crimes, obscenity, violations of regulations and rules, conviction for crime and non-compliance with sanctions. The sanctions to which these behaviors are subject are found in Article 6.4 of the Student Regulations. This regulation is available to all students and the public at the Dean of Students' office and on the website www.uprp.edu.

### **GOVERNMENT ETHICS ACT**

Law No. 1 of January 3, 2012, as amended establishes standards of conduct for public officials in their employment relationship and related practices. Its fundamental purpose is to avoid conflicts of interest and promote the ethical and upright behavior of all public servants who work in the government system of Puerto Rico and, in turn, to ensure faithful compliance with the standards of excellence and correctness.

### HIPAA ACT OF 1996 (HEALTH INSURANCE PORTABILITY OF ACCOUNTABILITY ACT)

As of April 14, 2003, the University of Puerto Rico at Ponce, entered in compliance with the HIPPA Act, which was approved on August 21, 1996, by the United States Congress. It obliges every employer to protect and secure data related to the health of its employees.

Everyone, including students and employees, has the right to confidentiality about their health information, as well as to approve or refuse the disclosure of certain types of information, except as required by law. All information related to the medical conditions of employees and students may not be disclosed to any person without prior written authorization. Failure to comply with this law will entail the sanctions stipulated therein. Similarly, disciplinary sanctions will be applied in accordance with the General Regulations.

The Offices of Human Resources, Medical Services, Equal Employment Opportunity and Registration have taken appropriate steps to ensure the privacy and confidentiality of the medical records of employees and students.

(Circular Letter 03-04 - HIPAA ACT OF 1996 (HEALTH INSURANCE PORTABILITY OF ACCOUNTABILITY ACT)

### LAW 51 - COMPREHENSIVE EDUCATIONAL SERVICES FOR PERSONS WITH DISABILITIES OF JUNE 7, 1996

Certification 016 1997-98 of the Board of Trustees establishes the Regulations for the fulfillment of the responsibilities of the University of Puerto Rico assigned by this Law. Law 51 enshrines the right of persons with disabilities to receive a public education, free of charge and in accordance with their needs. For this purpose, the responsibilities and functions of the University are clearly established in its mission of search and dissemination of knowledge and preparation of personnel to guarantee the optimal quality of life of infants, children and young people who have an impairment. The compliance of the UPR with the mandate specified in Law 51, above, will be conditioned on the allocation of the necessary and indispensable resources, as included by the UPR in its budget requests to meet its responsibilities and obligations under this law.

### PATENTS AND INVENTIONS

The 2002-2003-132 Certification of the Board of Trustees of the University of Puerto Rico establishes the Institutional Policy that governs everything related to Patents and Inventions and their commercialization. As an institution of the Commonwealth of Puerto Rico, the policy of the University is to carry out its academic work in an open and free atmosphere and to see that it is carried out until it reaches public dissemination. The University acknowledges, however, that sometimes patentable inventions can and do result from research carried out by its employees, students and other affiliates in the course of their work or while using University funds and facilities. The establishment of property rights, patents, licenses and protection of these inventions is consistent with the purposes and missions of the University.

This policy provides the authority to solicit, evaluate, and commercialize the inventions of faculty, staff, students, and others who may be employed or hired to work at the University of Puerto Rico. In addition, this policy establishes and governs a program to recognize, disclose, evaluate, patent, and commercialize such inventions. However, this policy does not apply to intellectual property rights related to copyright material.

The University of Puerto Rico intends to protect and encourage the application for patentable inventions in accordance with the laws of the Commonwealth of Puerto Rico and the intent of the United States Patent Act (Title 35, United States Code), as amended, with respect to inventions made under the auspices of the United States Government.

### INSTITUTIONAL POLICY OF EQUAL EMPLOYMENT OPPORTUNITIES EMPLOYER

The University of Puerto Rico at Ponce guarantees equal opportunity when applying for employment and admission. It also guarantees students and employees equal opportunities for study and employment, in service benefits, in programs offered, in terms and conditions of employment.

The University of Puerto Rico prohibits any discrimination in education, employment, and the provision of services based on race, color, sex, birth, age, origin or social status, ancestry, marital status, religious or political ideas or beliefs, gender, sexual preference, nationality, ethnic origin, armed forces veteran status, or physical disability.

This Anti-Discrimination Policy extends to all functions and activities of the University of Puerto Rico and the institutional units that make up its system, such as employment and job selection, educational programs, services, admissions and financial aid, among others.

Anyone who feels that he or she has been discriminated against may contact the Office of Equal Employment Opportunity or Human Resources, if they are employed, and the Student Advocate, if they are a student.

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

"The University of Puerto Rico prohibits any discrimination in education, employment, and the provision of services based on race, color or sex, birth, age, origin or social status, ancestry, marital status, religious or political ideas or beliefs, gender, sexual preference, nationality, ethnic origin, armed forces veteran status, or physical disability."

#### INSTITUTIONAL NO SMOKING POLICY

Act No. 40 of 3 August 1983, as amended, was established for the purpose of regulating the practice of smoking in certain public and private places, providing for the provision of smoking areas, as well as authorizing the Secretary of Health to establish rules and regulations for the implementation of this Act and imposing penalties.

The University of Puerto Rico responding to this mandate of law prohibits the university community (students, professors, employees, and visitors) from smoking in enclosed spaces, such as: classrooms, assembly halls, library, museums, corridors, cafeteria, and restrooms. Those who wish to smoke have to do so outside the buildings, in areas such as: parking lots, balconies or outdoor terraces.

# INSTITUTIONAL POLICY FOR THE PRIVACY OF RECORDS "LAW OF EDUCATIONAL RIGHTS AND PRIVACY OF 1974 (Family Educational Rights and Privacy Act of 1974)"

The University of Puerto Rico in compliance with this Law protects the privacy of students, academic records and establishes the right of each student to examine their record. In addition, it provides guidelines for amendments or corrections to files. Copies of this policy may be obtained from the Registrar's Office.

In order for the Institution to comply with the FERPA law, the student accesses the NEXT Portal during the first days of class and when they try to enter to see their courses or any other area they have to complete the FERPA form and submit it to comply with the law. Until they do the FERPA process through the Portal they cannot do any process. The Registrar carries out a monthly process where the data from the Portal is migrated to SIS. The process opens from the third week of classes until the last day of final exams so that the student has the opportunity to complete it.

#### INSTITUTIONAL POLICY AND PROCEDURES AGAINST SEXUAL HARASSMENT AND RETALIATION IN THE UNIVERSITY OF PUERTO RICO

Certification No. 45 2008-2009 of the Board of Trustees of the University of Puerto Rico governs the filing, investigation and adjudication of complaints and complaints of alleged acts of harassment and retaliation carried out by members of the university community with students, employees, contractors, or people who come to the University of Puerto Rico to receive their services or guidance. This certification is based on Law No. 1 of January 20, 1966, known as the Law of the University of Puerto Rico and Law No. 3 of January 4, 1998, known as the Law to Prohibit Sexual Harassment in Educational Institutions. This requires specific policies and procedures to be formulated to ensure an adequate study and work environment. Law 17 of April 22, 1988, in its Explanatory Memorandum establishes that sexual harassment consists of any type of unwanted sexual approach, requirements for sexual favors and any other verbal or physical conduct of a sexual nature that affects the work or academic environment of the harassed person. This conduct constitutes a violation of various laws and will be subject to the regulatory processes of the University.

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## INSTITUTIONAL POLICY ON UNAUTHORIZED REPRODUCTION OF WORKS PROTECTED BY COPYRIGHT LAW

The Institutional Policy, approved by Certification 140 of the PR Education Council in 1993 and expressed in Circular No. 95-01, guides the university community on the application of copyright laws. In particular, the Federal Copyright Law protects the copyright of any type of work perpetuated by any means of tangible expression. This protection extends to literary, musical, dramatic, pantomimic, graphic, film, architectural works and to computer programs or other electronic media.

Among the copyrights recognized and subject to protection under the Federal Copyright Law is the exclusive right of the owner of a protected work to its reproduction. Of concern is the proliferation at local level of establishments engaged in reproduction of works in violation of copyright. As a result, the UPR in Ponce stresses the need for the university community to avoid these practices that can be considered as violations of the Copyright Law and to refrain from directly or indirectly encouraging and sponsoring those who incur in such violations.

The Law allows the reproduction of a protected work without the consent of its author as long as it is for a fair and reasonable use. A reasonable use is for educational or research purposes, non-profit, for critical purposes, to comment on a text or in news reports.

## POLICY FOR THE ETHICAL AND LEGAL USE OF INFORMATION TECHNOLOGIES

Certificación 85 (2022-2023), "Política Institucional sobre el Uso y Acceso a los Recursos de la Tecnología de la Información en la Universidad de Puerto Rico", la cual establece las normas y directrices para el uso y acceso a los Recursos de la Tecnología de la Información en la Universidad, con el fin de proteger la integridad, seguridad y disponibilidad de los sistemas de información, y de cumplir con las leyes, políticas, normas y procedimientos de la Universidad, del gobierno estatal y del federal.

Certificación 86 (2022-2023), "Política de Clasificación de Datos de la Universidad de Puerto Rico" la cual establece un marco de referencia institucional para clasificar la información basado en su valor y sensibilidad. La clasificación de los datos permitirá establecer mecanismos de control, protección y manejo de la información en la universidad.

#### INSTITUTIONAL SECURITY POLICY

State and federal law imposes on educational institutions the responsibility of offering protection and security to the members that make up the university community. The University of Puerto Rico recognizes as a legitimate institutional interest to facilitate the protection of the life and safety of its members. It is also concerned with preventing the occurrence of criminal acts in the physical facilities of its educational system. This public policy statement was enacted pursuant to Public Law 101-542 known as the Student Right to Know and Campus Security Act. This Act requires the annual preparation, publication, and distribution of a security report. The Table of Crime Statistics on the campus for the last five years is included.

## Table of crime statistics on campus for the last five years:

Crimes	Year 2017	Year 2018	Year 2019	Year 2020	Year 2021
Murder/Homicide	0	0	0	0	0
Sexual offense	0	0	0	0	0
Vandalism	0	1	1	0	0
Theft	0	0	0	0	0
Induction Violation	0	0	0	0	0
Physical Aggression	0	2	0	0	0
Car Theft	0	0	0	0	0
Arson	0	0	1	0	0
Illegal Possession of Weapons	0	0	0	0	0
Drug Use	0	0	0	0	0
Penalties/Use of Alcohol	0	0	0	0	0
Stalking	1	1	1	0	0
Total Crimes	1	4	3	0	0

Note: These crimes are required to be reported under the federal regulation "Jeanne Cleary and Campus Code Security Act".

This Act promulgates that any person who violates any federal or state statute shall be subject to disciplinary sanctions set forth in university regulations or to be prosecuted civilly or criminally by applicable laws.

Another component of Public Law 101-542, in addition to security, is related to graduation rates. The following table is included that provides information on this aspect:

## Graduation rate table corresponding to the last five cohorts:

Cohort	Enrollment Cohort	Academic Year	Graduation Rate
2011	613	2017-2018	41.00
2012	766	2018-2019	47.00
2013	758	2019-2020	44.00
2014	812	2020-2021	48.00
2015	927	2021-2022	46.00

 $<sup>*</sup>Stalking\ case-event\ that\ occurred\ outside\ the\ Institution-a\ Protection\ Order\ was\ issued\ by\ the\ Courts\ at\ the\ request\ of\ the\ students\ involved.$ 

#### INSTITUTIONAL POLICY ON ALCOHOL AND DRUG USE

The University of Puerto Rico, aware of the problem posed to its university community by the use and abuse of drugs and alcohol, has prohibited the manufacture, distribution, supply, possession, illegal use of controlled substances and alcohol abuse. These practices are detrimental to the best institutional interests and should not be allowed regardless of the hierarchy or position of the people who may be involved. Under no circumstances will any person be allowed to violate this prohibition or to be under the influence of any controlled substance or alcohol and to remain in his place of work or studies. Violators of this Act are subject to disciplinary sanctions.

This policy is encouraged in accordance with the following provisions:

- 1. Law of the University of Puerto Rico, Law No. 1 of January 20, 1966.
- 2. Drug-Free Schools and Communities Act 1989 (Public Act 101-226).
- 3. Internal Regulations of the Department of Defense of the United States.
- 4. (Certification No. 32-1999-2000 as amended University of Puerto Rico Policy on the Illicit Use of Drugs, Controlled Substances and Alcohol Abuse)

#### LAW ON VACCINATION OF STUDENTS UNDER 21 YEARS OF AGE (25 SEPTEMBER 1983)

The law requires annual reports to be submitted to the Department of Health on the vaccination phases of all students under the age of 21 enrolled in each university institution.

College students must have the basic doses required for their age according to the Department of Health, which must include: 3 or more DTP/DTaP/DT/Tdap., (3) Polio, (2) MMR, (3) Hepatitis B., (2) MCV and (1) Tdap.

#### POLICY STATEMENT FOR PREVENTION AND INTERVENTION IN CASES OF DOMESTIC VIOLENCE, ASSAULT AND STALKING

The University of Puerto Rico at Ponce (UPRP) is committed with the Policy of the Commonwealth of Puerto Rico and to Law No. 217 of September 29, 2006, to repudiate acts of domestic violence in the workplace. The UPRP will not tolerate them as they constitute an aggression and a criminal act against the employee. Domestic violence is a manifestation of gender-based discrimination.

The Administrative Board, at its regular meeting on February 9, 2006, and through Certification No. 2008-2009-58, approved the Policy and Procedures for Prevention and Intervention in Cases of Domestic Violence, Assault and Stalking. Copies of it can be found in the Offices of the Deans, Department Directors, Office of Human Resources, Office of Equal Employment Opportunity (EEO) and the library. In addition, it is published on our webpage http://www.uprp.edu/. This

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Policy reaffirms our commitment and that of the university of Puerto Rico administration to maintaining a safe work area for all staff.

#### **ENVIRONMENTAL POLICY**

The University of Puerto Rico, in the discharge of its responsibility to the community and as an agent of social change, assumes with firm commitment and a leadership position, proposing concrete alternatives that contribute to the solution of existing environmental problems. The objectives of the Environmental Policy of the University of Puerto Rico Certification 10, 1995-96 of the Board of Trustees, are the following:

- 1. Operationally implement the Environmental Policy of the Commonwealth of Puerto Rico, adapted to the institutional reality and serve as a model for its implementation.
- 2. Establish mechanisms to serve as a forum for the discussion of environmental problems relevant to Puerto Rico, the Caribbean and the world.
- 3. Contribute ideas and participate in the public discussion of environmental problems.
- 4. Establish mechanisms to comply with environmental protection laws and regulations applicable to the University of Puerto Rico.

## Admission, Transfers, Readmission, Reclassification, and Enrollment Processes



### PART III ADMISSION, TRANSFER, READMISSION, TRANSFER, RECLASSIFICATION AND ENROLLMENT PROCESSES

#### **ADMISSION**

The University of Puerto Rico in its intention to have students with excellent academic qualifications, in coordination with the admissions offices, ensure that they meet all the admission criteria that allow them to assume the educational and academic challenges posed by studies in a quality university institution.

The admission policy has been developed to predict the potential of each admitted student, in accordance with the requirements that university work requires in accordance with the academic programs offered by the institution.

On the other hand, this policy aims to make the criteria and procedures used for admission formal and equitable.

If the student is interested in a readmission or transfer, -if they previously studied at the University of Puerto Rico- they should refer to the information of said process or contact the Registry Office. However, if you are a new student or transfer student you should contact the Admissions Office.

The transfer student is one who studies or studied at an accredited private university – not a student of the University of Puerto Rico – and wishes to start or continue studies at the UPR Ponce. If your transfer is not to UPR Ponce and is to another unit of the UPR System, you should contact the Admissions Office of the UPR unit in which you wish to begin studying.

Starting in 2017, admission applications for new students have been processed through the NEXT platform. This platform allows for the collection of academic information and necessary documentation, which is then securely stored in the cloud. Subsequently, the academic records are transferred to the Registrar's Office, where they are officially safeguarded.

#### **General Admission Requirements for New Students**

- 1. You must be a graduate or graduate candidate of a public or private high school licensed to operate issued by the General Council of Education or have passed the Department of Education equivalency exam.
- 2. Request copy of the official credit transcript.
- 3. You must take the College Admission Test, which is administered by the College Board. This test consists of (5) parts in the case of the (PEAU) and (3) parts in the case of PAA.
  - a) Aptitude Verbal and Mathematical that is used to evaluate the application for admission.
  - b) Proficiency English, Mathematics and Spanish that is used for the placement of basic courses.
  - c) Scholastic Aptitude Test (SAT) If you understand that you are fluent in English more than Spanish, you can take this test.
    - SAT I equivalent to the aptitude part of the PEAU, PAA

• SAT II – "Subject Test": Literature, Math, and Spanish" equivalent to the part of proficiency.

These results must be officially sent directly to the Admissions Office.

4. Complete the application for admission. You can complete it online by accessing www.upr.edu/admisiones.

Note: Applications for new admittance are considered only for the first semester (August). Note: We are accepting applications for January.

5. Comply with the General Admission Index (GAI) of the study program of interest. This is the minimum score the student must have to be accepted into a particular academic program. The index may vary from year to year.

If you wish to know your index, you can access the portal: *admisiones.upr.edu* and calculate your GAI in the GAI calculator that we provide, entering the results of the aptitude part of the College Board or SAT I and your accumulated general average respectively in the corresponding spaces.

Once admitted, you must present a high school graduation certificate, immunization certificate, and other documents required by medical services.

The Pilot Plan for the Undergraduate Admission Policy at the University of Puerto Rico is implemented, with the purpose of impacting a diversity of undergraduate students under traditional admission criteria and non-traditional admission, through a uniform process that guarantees faithful compliance and in harmony with institutional regulations, Certification Number 33, 2022-2023 of the Governing Board. With the implementation of this pilot plan, Certification 25 (2003-2004) is paused.

#### **Home Schoolers**

If you have been homeschooled, you must indicate this on the application, with the code 3934 (in the space provided for high school code). It is required to present the results of the PEAU or PAA and authorize by a notary the document Homeschooled Students Certification (it is obtained through the Admissions Office).

For more information on the admission criteria for *Home Schoolers*, you can access www.upr.edu/admisiones.

#### Admission for applicants from Higher Schools from other countries

- 1. Have evidence of authorization to study in Puerto Rico or in U.S. territory.
- 2. Meet the admission requirements for students from high school.
- 3. Submit evidence of diplomas or degrees received with an official certification indicating that the institution enjoys official recognition from the government of the country of origin.

- 4. Submit an affidavit evidencing the availability of economic resources to support yourself in Puerto Rico.
- 5. Present evidence of complete proficiency in the English and Spanish languages.
- 6. Send an official copy or official explanatory report on the grading system used in the evaluation of academic achievement, the content and level of the courses taken, and the number of hours covered by each subject.

The University of Puerto Rico recently approved a Pilot Plan, through Certification 33-2022-23 of the Governing Board, for Admission 2023-24. This will be evaluated for continuity.

# INSTITUTIONAL TRANSFER POLICY FROM THE UNIVERSITY OF PUERTO RICO IN PONCE (Certification 2019-2020-28 – Academic Senate UPR-Ponce)

#### I. Transfer

**Transfers** 

#### **Definition**

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

#### **II. Requirements and General Rules**

#### A. Baccalaureate Programs

#### 1. Transfer Type "A"

- a. Have passed 24 credits with the minimum average required by the department to which you applied.
- b. Meet the specific requirements of the program to which you applied.

#### 2. Transfer Type "B"

If you have less than 24 credits approved at the university of origin, you must have satisfactory academic progress (see subsection B. *General Rules*) and comply with the Applicant General Index (AGI) established for the program to which you apply corresponding to the year in which you finished your high school studies.

#### **B.** Associate Degree Programs

#### 1. Transfer Type "A"

- a. Have approved 24 credits with the minimum average required by the department to which you are applying.
- b. Meet the specific requirements of the program.

#### 2. Transfer Type "B"

If you have less than 24 credits approved from the Universityyou are transferring from, you must have satisfactory academic progress (see subsection B *General Rule*) and comply with the AGI established for the program you requested.

#### C. General Rules

- i. The student applying for transfer to a Baccalaureate Program or Associate Degree Program must pass 50% or more of the specialty credits at the University of Puerto Rico at Ponce, in order to graduate from that program.
- ii. Have an academic index that is not less than 90% of the average of the program to which you are applying for and that the result of this is not less than 2.00 and the courses required for transfers type "A" by the Department concerned.
- iii. All transfer programs are articulated. The requirements for them are established by the receiving unit.

#### III. Procedure

#### A. Application

- 1. The student interested will fill out the application for admission no later than the deadline established and must pay the required fees by credit or debit card, a money order, certified check in the name of the University of Puerto Rico or cash at the Bursar Office.
- 2. The applicant will request one (1) official copy of his academic record from each of the institutions in which they have completed university level studies. These will be sent directly by the university institution to the Admissions Office of the University of Puerto Rico in Ponce. Transcripts that are provided by the student or photocopies will not be considered as official copies. The applicant will submit a copy of the catalog (or equivalent) of the university they are transferring from, if said institution is located outside of Puerto Rico.
- 3. The student will request from the dean of students or the official in charge at the institution previously attended the Recommendation. Form This document is indispensable for the evaluation of the case. If you have studied at more than one institution, the form will be from the most recent.
- 4. The student who is interested in knowing the amount of credits to be validated, before filling out the application, will be referred to the director of the department to which they requested for a preliminary evaluation. This will be the responsibility of the student.

#### 5. Foreign Students

- a. Request original academic documents, with a recent date of issue and duly certified by the Secretary of Education and / or authorized officials of both your country and the Institution of origin.
- b. Present official evidence of degrees or diplomas.
- c. All candidates must submit a certification from the agency "World Education Services" (WES) that establishes the following: equivalence of courses and the degree obtained if applicable; report with the credential analysis that includes accreditation and report with the analysis of each course that includes course title, credits and grade.
- d. Provide translation into Spanish or English of the documents.
- e. Have knowledge and proficiency in English and Spanish.
- f. Send Money Order with payment corresponding to the mailing address provided.

The student must meet the requirements of the academic program to which they apply.

If the student is admitted, the institution will process the corresponding Visa (Form I-20). As part of this process, evidence will be requested on the availability of economic resources to pay for studies at the University of Puerto Rico.

Explanatory note: Regarding admission of students of Professional Improvement see Academic Senate Certification 2019-2020-27

#### **B.** Evaluation

- a. The student will fill out the transfer application at the university's Admissions Office in accordance with the instructions in the manual and pay the corresponding fees.
- b. When cases are completed, the Admissions Officer will take them to the Office of the Dean of Academic Affairs. The Office of Academic Affairs will distribute them to the academic departments.
- c. The department director along with his committee will evaluate the files and make the decision. Any case that is denied must include the reasons.
- d. If the student has studied at more than one institution, all the grades of each institution will be counted to calculate their general index. This is calculated by taking into consideration all grades in the courses that the student has completed at the institution.
- e. The Academic Index is used to measure a student's academic achievement. It is computed by dividing the total number of honor points by the total credits accumulated in the courses in which the student has received a final grade, including failures. The points result from the value assigned to each grade: A=4; B=3; C=2; D=1; F=0.
- f. Those subjects in which they have obtained "D" and "F" will be computed for the determination of the general average.

- g. Those subjects passed with "D" will be considered only for the purpose of calculating the number of credits approved by the student.
- h. Pre-basic or preparatory courses will not be considered for validation or as approved credits or to calculate general average.
- i. The validation of credits is part of the evaluation; therefore, no student should be admitted without completing the form provided for it.
- j. Only courses with a grade of "C" or higher will be validated.
- k. High school students who pass the College Board's Advanced Level Tests (PNA) in the subjects of Spanish, English and Mathematics will receive university credits through equivalence with the corresponding university courses according to the score obtained. The corresponding credit hours with a grade of "P" (approved) will be recorded in the file. The student will be responsible for notifying the Admissions Office of the passing of these exams and requesting official evidence of the results to appear on their application for admission.
- 1. Not have any disciplinary restrictions or be in academic probation. Students on probation for academic deficiency (average) or on suspension for conduct at their home institution will not be eligible for admission.
- m. The department director will return the evaluated cases to the Dean of Academic Affairs who will take the final action within a period not exceeding 10 working days.
- n. The Dean of Academic Affairs will send the cases to the Admissions Office to respond to the applicant within a period of no more than 5 working days.
- o. The Admissions Office will inform the applicant of the final determination on their application within a period not exceeding 3 working days.
- p. The Admissions Officer will take the accepted cases to the Registry Office. The Registrar's Office will send, in writing, a copy of the credit validation to the applicant within a period not exceeding 10 working days.
- q. Applications that cannot be evaluated due to lack of documents will be denied by the Dean of Academic Affairs.

#### C. Reconsiderations

If denied, the student may complete the reconsideration application and send it to the Admissions Office. It will be forwarded to the Office of Academic Affairs for further reconsideration.

The University of Puerto Rico at Ponce is committed to evaluating all applicants fairly, but does not offer a guarantee of space in the requested program.

#### "TYPE A" TRANSFER REQUIREMENTS

Program	Minimum Overall Average Required	Specific Required Courses	Other Requirements	
		alaureates		
Bachelor's Degree in Business Administration with a concentration in:  • Accounting • Marketing • Finance • Management The same requisites for online programs (Management and Marketing Bachelor's Degree in Science in Computer Information Systems Bachelor's Degree in Natural Sciences with concentration in Biology with areas of emphasis in:  • Biotechnology • Biodiversity Assessor • Biochemistry • Tropical Medicine and Global Health	2.50 2.50 3.20	Have 9 credits in Science and Mathematics courses or their equivalents.  1. General Biology 1 2. General Chemistry 1 3. Mathematics with a minimum average of 2.90 in science and mathematics.		
Bachelor's Degree in Natural Sciences with a concentration in Biomedical	3.20	Have 9 credits in Science and Mathematics courses or their equivalents.  1. General Biology 1 2. General Chemistry 1 3. Mathematics with a minimum average of 2.90 in science and mathematics.		
Bachelor of Arts Degree in Social Sciences with concentration in:  1. Forensic Psychology 2. Psychology and Mental Health 3. Areas of Emphasis in Rehabilitation Services  Bachelor of Arts in Elementary Education	2.80			
Bachelor of Office Systems Administration	2.50			
and Technology  Bachelor's Degree in Physical Therapy	3.00	Have passed a course in General or Modern Biology or an equivalent with a minimum of 2.00.	Students are only accepted in the first semester (August to December). Interview with the Department's Admissions Committee.	
		iate Degrees		
Associate Degree in Technology in Civil Engineering at:  • Construction	2.00			

Program	Minimum Overall Average Required	Specific Required Courses	Other Requirements
Architectural Drafting			
Associate Degree in Industrial Technology	2.00		
Associate Degree in Physical Therapy	2.50		Students are only accepted in the first semester (August to December).
Entrepreneurship and Administration	200		

## READMISSION (Certification 2004-2005-66, Academic Senate UPR-Ponce)

It is the procedure by which a student of the University of Puerto Rico requests readmission to the System, after having suspended his studies for a semester or more. The student will apply for readmission at the Registrar's Office of the Campus where he studied. You will complete the application and pay the corresponding fees. Late applications will have a surcharge. If you were suspended for academic reasons, the applicant will request readmission on probation and accompany this procedure with a letter to the Academic Achievement Committee, which will evaluate the case. (Certification 2002-2003-32, Academic Senate UPR-Ponce)

The Registrar will notify the student of the result of the evaluation of their application. Any student who has obtained the Baccalaureate degree in the UPR System and wishes to study again may request a readmission to the campus of their interest. The student will have the responsibility to request two official copies of his academic record that will accompany said application. Applications will not be processed until official copies are received at the Registry Office. Copies from students will not be accepted.

## RECLASSIFICATION (Certification 2004-2005-66, Academic Senate UPR-Ponce)

It is the change from one program of study to another. The student can apply for such purposes at the Registry Office according to the date stipulated in the academic calendar.

#### The eligibility requirements are:

If you have fewer than 30 approved credits at the University of Puerto Rico, you must have satisfactory academic progress and a general admission index (GAI) value equal to or greater than the minimum established for the year in which the student was admitted.

If you have 30 or more credits approved at the University of Puerto Rico, you must have satisfactory academic progress and meet the criteria established for the program to which you want to be admitted.

## TRANSFERS (Certification 2004-2005-66, Academic Senate UPR-Ponce)

Transfers are the movements of students between units of the University of Puerto Rico system. This procedure is available for active or inactive students. Transfer requests are processed in the Registry Office of the different units according to the dates established in the Academic Calendar. The applicant must meet the following minimum requirements:

- 1. If the student has less than 30 credits approved at the University of Puerto Rico, they must have satisfactory academic progress. Have a general admission index (GAI) equal to or greater than the minimum established for the year in which they were admitted.
- 2. If the student has more than 30 credits approved at the University of Puerto Rico, they must have satisfactory academic progress and meet other criteria established for the program to which they wish to be admitted.

The Register's Office of the applicant's unit of origin will process all the necessary documents to the requested unit within the period established in the academic calendars. The Register's Office of the requested unit shall in turn forward all documents to the department directors for evaluation. After the evaluation is completed, the Registry Office will inform the student of the decision made. Applicants who qualify will be admitted according to the requirements set in each academic program.

**Articulated Transfer.** Transfer agreements offer you greater academic opportunities while making the most of each unit's strengths. These programs allow you to begin studies in a unit near your home and then move to another unit of the UPR system and complete the academic degree to which you were admitted in the unit that offers you the specialty courses.

Curriculum design may vary from one (1) to three (3) years of study, depending on the requirements of each program and each campus or unit of the system where you are interested in moving. The articulated transfer, unlike the general transfer, guarantees you a space in the admitted program of the enclosure to be moved. Once the requirements are completed, the student will file the transfer application with the Register's Office. It does not entail any payment.

#### **EARLY REGISTRATION**

It is a privilege granted to Honors Program students and students with previously identified disabilities. In addition, the 2003-2004-25 Certification of the Academic Senate of the UPR-Ponce approved granting early enrollment to Student Athletes, Choir, Band, Theater, PRISE and Student Senators and established the protocol to be followed in those cases.

#### REGISTRATION

The registration or enrollment process is the one by which students register for courses. Students must enroll within the period stipulated in the Academic Calendar and **students will not be to register after the sixth day of classes** during the regular semesters or the third day during the summer session, except for exceptional cases where the recommendation of the Chancellor mediates.

Tuition confirmation is the process by which students pay for the services they will be entitled to during the semester. The registration period is established in the Academic Calendar; this is done online or at the University facilities during the days and times designated.

The Register's Office generates the enrollment of new students according to the courses recommended by the department directors.

The Bursar's Office sends all enrolled students their tuition-invoice. The Office of the Dean of Students Affairs sends the instructions for the confirmation of the same. Such tuition will be valid when students make the payments for the courses and corresponding fees at the Bursar's Office within the period established in the academic calendar for payment.

#### Changes

The study programs of the students may be amended during the days indicated in the academic calendar of each semester or summer.

The Registrar will not accept program changes after the sixth day of classes of the semester or the third day of the summer session, except in exceptional cases where the recommendation of the Dean of Academic Affairs is mediated.

#### **Tuition Fees**

1. Tuition Rights for Resident Students, Students Outside Puerto Rico, but U.S. Residents and Non-U.S. Resident International Students

In the Technical Programs, Baccalaureate or Transfer to a Major Campus and Irregular Students (students enrolled in less than 12 credits) a cost of \$ 157 per credit is established.

#### 2. Other Tuition Fees

Every student will be obliged to pay as part of their tuition fees the following fees:

Technology Fee	\$50.00 per academic session
Maintenance Fee	\$100.00 per academic session
Maintenance Fee	\$100.00 per summer session
Laboratory Fee	\$100.00 per laboratory
Identification Card	\$10.00

#### 3. Other Fees

Documents duplicate	\$5.00
Copy of transcript of credits and certifications	\$5.00

\$25.00
\$50.00
\$20.00
\$80.00**
\$30.00
\$20.00
\$35.00
\$15.00
\$25.00
\$20.00
\$33.00
\$10.00
\$15.00
\$20.00

<sup>\*</sup>Late applications for readmission, special authorizations, articulated transfers and transfers will be charged at the rate of 1.5 times the fee that is regularly paid when filed on time, as has been the norm until now. Each unit will set a deadline for accepting late applications.

#### 4. **Tuition Exemption**

According to Certification 50, 2011-2012 of the Board of Trustees, the granting of tuition exemption constitutes a recognition of the merit granted by the University to promote excellence in its different aspects.

Below are the tuition exemption categories:

#### 1. Law 203

Law 203 grants 50% of the tuition waiver benefit, that means that in your basic tuition (costs per credit), you pay 50% of your tuition and 50% of your fees. The other categories have a 50% tuition waiver benefit, that means that in your basic tuition (costs per credit), you pay 50% of your tuition and pay the fees. To enjoy the exemptions, students must present the authorization issued by the corresponding unit or agency.

#### 5. **Procedure for Payment of Tuition**

#### a. Dates

1. All fees and dues will be paid on the dates and times indicated by the Bursar's Office.

#### b. Payment Extensions

1. The Dean of Student Affairs, after evaluation, may grant extensions to make the payment of tuition fees to those students who cannot make the full payment on the day of enrollment, due to lack of resources.

<sup>\*\*</sup>The term for the graduation fee is one academic year and the following summer.

- 2. The extension must be requested from the Dean of Student Affairs during the indicated period.
- 3. Fees in addition to the basic tuition fee such as: technology fee, Night University fee, construction fee, laboratories, medical services, etc., will not be subject to extension.
- 4. If the student does not make the extension payment o on the dates indicated by the Dean of Student Affairs, they will be obliged to pay a surcharge according to the term.
- 5. All fees and dues may be paid in cash in U.S. currency. They can also use debit or credit card (Visa and Mastercard), certified check or money order for the exact amount payable to the University of Puerto Rico at Ponce.

#### 1. Reimbursements

- a. Students who have left in the first two weeks of any semester or during the first week of the summer session will be entitled to a reimbursement of 50 percent of their basic tuition fees.
- b. No reimbursement of fees paid by visiting students and by students discharged for disciplinary reasons are authorized.

All claimable rights or deposits that have not been requested by the end of the second semester of the academic year will pass to the General Fund of the University of Puerto Rico.

#### RETURN OF UNIVERSITY PROPERTY

Before leaving the University, the student must return in good condition all property that has been lent to them (books, equipment, etc.).

#### **DEBTORS (STUDENTS IN DEFAULT)**

Students who have debts with the University will not be entitled to the following: be issued any official document related to their academic work; receive an extension in the payment of tuition, nor will they be eligible to receive other university services with or without pay. They will be suspended, upon written notice, any services they are receiving while they have not brought up to date their accounts or are complying with a payment plan, as set forth in the regulations. Students in default will be notified in writing for a hearing. If they do not respond within 15 working days, the sanctions previously mentioned will be enforced.

# Academic Regulations



#### PART IV ACADEMIC REGULATIONS

#### **REGISTRAR'S SERVICES**

The Registrar's Office is responsible for the student's academic documentation. It establishes enrollment procedures and ensures compliance with academic standards. Oversees faithful compliance with existing laws and academic regulations. It is the office in charge of processing grades, issuing credit transcripts, conducting evaluations of students who are candidates for graduation, processing applications for transfer, reclassification, readmission, and special authorizations. In addition, it offers other services to the student community, faculty, administrative staff, and members of the community at large. It also provides certifications for graduation purposes, social security, taxes, health insurance, housing, and nutrition assistance programs and student loan deferral, among others.

The Registrar's Office is located on the first floor of the university's Dean of Student Affairs Center, Office 103.

## CREDIT TRANSCRIPTS (ACADEMIC RECORD)

Credit transcripts or academic records are confidential documents that reflect the student's academic life and can be processed as:

- a. Official Copy credit transcript sent directly by the University to the agency or institution designated by the student.
- b. Student Copy transcript of credits to be given or sent to the student for personal use.

The application will be completed at least one week before the document is needed either by visiting our office or through www.studentclearinghouse.org. Written authorization from the student and photo IDENTIFICATION are required to request or deliver credit transcripts to anyone other than the student. Credit transcripts will not be issued to student debtors.

#### REGULAR ACADEMIC PROGRAM

The academic program consists of a group of subjects with a value that fluctuates between 12 and 21 credits per semester. With the prior authorization of the Dean of Academic Affairs, the student may take a greater number of credits than the established limit. The programs insert their academic offer that begins on August 1 and ends on July 31.

The maximum academic load during the summer session is seven (7) credits. Among the aforementioned seven (7) credits, courses of six (6) credits may not be taken. Candidates for graduation in the summer and honor students may take up to a maximum of 10 credits, provided they are recommended by the Director of the Study Program, by the Dean of Academic Affairs

and authorized by the Chancellor. Some programs have courses by independent study which are counted in the aforementioned credit.

The number of credits authorized to students at this University to study during the summer in units of the system or private universities will be governed by the rules already established for the summer session. The program will be subject to the approval of the Dean of Academic Affairs, the Department Director or Program Coordinator, and the Registrar.

#### ASSIGNMENT OF CREDIT HOURS

"Credit Hour: Except as provided in 34 CFR 668.8(k) and (l), a credit hour is an amount of work represented in the expected learning outcomes and verified by evidence of student achievement that is an institutionally established equivalence that reasonably approximates no less than –

- (1) One hour of direct class or instruction and a minimum of two hours of work outside the classroom each week for approximately fifteen weeks in a semester or quarter, or ten to twelve weeks for a quarter credit hour, or the equivalent amount of work over a different amount of time; or
- (2) At least an equivalent amount of work as required in paragraph (1) of this definition for other academic activities established by the institution, including laboratory work, internships, internships, study work, and other academic work leading to obtaining credit hours."

The University of Puerto Rico at Ponce generally follows a semester system with fall and spring semesters consisting of a minimum of 15 weeks. Summer sections typically consist of less than 15 weeks but adhere to the policy in terms of time and the amount of work required. The Administrative Board issues an annual certification establishing the academic calendar. Academic program directors, along with faculty, are responsible for developing, maintaining, and evaluating the curriculum.

#### Lectures and Seminars: Student Instruction and Work Inside and Outside the Classroom

Credits	Minimum contact time per week	Total minimum instructional time per 15 weeks (contact time x weeks)	Minimum time out of class work per week	Minimum total working time outside the classroom for 15 weeks (work outside the classroom x weeks)	Total instructional time and total time and work outside the classroom
1	50 contact minutes	750 contact minutes	50 minutes	750 minutes	1,500 minutes (25 hours)
2	100 contact minutes	1,500 contact minutes	100 minutes	1,500 minutes	3,000 minutes (50 hours)
3	150 contact minutes	2,250 contact minutes	150 minutes	2,250 minutes	4,500 minutes (75 hours)
4	200 contact minutes	3,000 contact minutes	200 minutos	3,000 minutes	6,000 minutes (100 hours)

#### **Independent studies**

Courses of study in which a faculty member regularly interacts and directs student outcomes through regular contact. Minimum credits are determined based on minutes of instructional contact and student work outside the classroom. Those courses must match the total amount of work using the examples mentioned above and the faculty member is required to keep track of meeting schedules and assigned student work so that contact hours can be calculated.

#### Laboratories

Courses with a focus on experiential learning under the direct supervision of a faculty member in which the student performs substantial work in a laboratory.

#### Laboratory: Instruction and student work inside and outside the classroom

Credits	Minimum contact time per week	Total minimum instructional time per 15 weeks (contact time x weeks)	Minimum time out of class work per week	Minimum total working time outside the classroom for 15 weeks (work outside the classroom x weeks)	Total instructional time and total time and work outside the classroom
1	60 contact minutes	900 contact minutes	30 minutes	450 minutes	1,350 minutes (22.5 hours)
2	120 contact minutes	1,800 contact minutes	60 minutes	900 minutes	2,700 minutes (45 hours)
3	180 contact minutes	2,700 contact minutes	90 minutes	1,350 minutes	4,050 minutes (67.5 hours)
4	240 contact minutes	3,600 contact minutes	120 minutes	1,800 minutes	5,400 minutes (90 hours)

#### Internships/Undergraduate Research

Courses in which a faculty member regularly interacts and directs student outcomes through regular contact, but in which the actual learning environment takes place off campus in an approved location. The learning experience involves a supervisor. Contact time and work requirements of the student outside must be established and documented. The program director or faculty member responsible for the experience is required to keep a record of the amount of supervised work and the amount of work assigned so that contact hours can be calculated.

Academic Program	Course	Duration
Athletic Therapy	TATL 4202 Practice	15 weeks/ 120 hours
Biology with emphasis on  Biotechnology Biodiversity Evaluator Marine Costal Environment Evaluator	BIOL 3108 Undergraduate research	15 weeks/90 hours
Business Administration - Management	REHU 4450 Practice	15 weeks/180 hours
Business Administration -Marketing	MERC 4235 Internship	15 weeks/180 hours
Business Administration - Finance	FINA 4991 Practice	15 weeks/180 hours
Business Administration -Accounting	CONT 4026 Internship	15 weeks/240 hours
Computer Information System	SICI 3016 Project Implementation	15 weeks/180 hours
Elementary Education	EDPE 2007 Practice	15 weeks per semester/ 225 hours
Office Systems and Technology Management	SOFI 4985 Internship and Seminar	Internship – 16 hours a week; 200 hours per semester Seminar – 15 hours per semester
Social Sciences  - Forensic Psychology	PSIC 4415 Practice	17 weeks/120 hours
Social sciences  - Psychology and Mental Health	PSIC 4097 Practice	17 weeks/120 hours
Social sciences  -Rehabilitation Services	REHA 4006 Practice	17 weeks/120 hours
Civil Engineering Technology in Construction	TECI 2109 Practice	96 hours/semester
Architectural Delineation Engineering Technology	TECI 2109 Practice	96 hours/semester
Physical Therapy Assistant	TEFI 2002 Practice	40 hours a week for 200 hours for 5 weeks in the last semester of the study program

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In courses with laboratories and in internships and internships, the allocation of contact hours varies according to the nature of the course and is assigned according to the requirements of the professional accreditation agencies in the programs that are accredited.

#### STUDENT CLASSIFICATION

- 1. Students are grouped into the following categories:
  - a. **Regular Program Students**: Students enrolled in 12 or more credit hours per semester up to a maximum of 21 credits.
  - b. **Irregular program students**: students enrolled in less than 12 credit hours per semester.
  - c. **Visiting and Special students (non-degree status)**: Students authorized by the Dean of Academic Affairs who pay a special stipend to attend classes, but do not receive official credit.
  - d. **Transitional or special permit students**: Students who come from another campus or institution of higher learning who apply to take courses for a period of time.
  - e. **Professional improvement students:** are those who follow a class program of no more than six (6) credits per semester for their professional or academic improvement. The Dean of Academic Affairs may authorize a higher academic load in certain cases.

#### f. Other Categories:

- a. *Honor Students*: Honor Students will be exempt from paying only the charges for the cost of the credits enrolled and only for courses enrolled for the first time and for students who meet the following requirements:
- b. Students from the second year onwards who have a GPA of 3.50 or more and who are within the top 5 percent of the cohort of all regular students of their same year of new entry to the level of studies.
- c. Eligibility is determined at the beginning of each semester. No exemption will be granted for courses offered in summer sessions, except for courses that are part of the curricular sequence of the program leading to degree. (Certification 50 2011-2012, Board of Trustees).
- d. *Honor Roll Students*: To belong to the College Honor Roll, students must meet the following requirements:
  - i. Have an academic load of 12 credits or more at the
  - ii. time of consideration.

- iii. Have passed 12 credits or more the semester prior to such consideration.
- iv. Be a sophomore or higher.
- v. Minimum academic index of 3.40.
- vi. Students admitted by transfer must have approved a minimum of 24 credits in the University of Puerto Rico System before being considered for the Honor Roll, in addition to meeting the stipulations of the above requirements.
- 1. Year of Studies The year of study is classified according to the number of credits approved by students in the Student Information System:

A. 0-32 creditss First year
B. 33-64 credits Second year
C. 65-90 credits Third year
D. 91 or more credits Fourth year

#### PARTIAL AND TOTAL WITHDRAWAL

**Partial Withdrawal.** It is the process by which a student officially cancels one or more courses in which they are enrolled. Partial withdrawal is a grade that appears in the academic record and does not count to calculate the grade average. However, it could generate different interpretations by people who, in some way, would have to evaluate the file to continue graduate studies, studies in another unit or another institution. Partial cancellations from a course or more can be processed up to ten working days prior to the last day of classes.

**Total Withdrawal.** It is the process by which a student officially cancels all the courses they have enrolled in their class program. It is advisable that every student considering total cancellation have an interview with a professional counselor and with their academic record evaluator before doing it; so, you can analyze your situation and how this withdrawal may affect you. **Total cancellations can be processed until the last day of classes of the corresponding academic semester**.

Subjects marked with "W" are not counted towards the academic index. When computing the index for degree or certification of compliance with requirements, only the grades in the required and elective courses for the requested degree will be considered. However, under Certification 55 2016-2017 of the Governing Board these are taken into consideration for the calculation of Academic Progress. See Academic Progress section.

#### **Procedure:**

#### Partial Withdrawal

- 1. Access the NEXT Portal. There you will use your official UPR email account to authenticate.
- 2. Once you have been authenticated, the portal will show you several icons. Select "Course Drop".
- 3. Select the course(s). In the case of courses that are co-required, the system will present them together. You will not be able to unsubscribe from all courses, as that would represent a Total withdrawal. Press the button "Continue".
- 4. Review and confirm your course(s) selection. Press the button Review and confirm your course(s) selection. Press the button "Process".

- 5. The system will present you with a confirmation message. This message will tell you whether the partial withdrawal was processed. Press "Continue".
- 6. Log in to your email, print the receipt and deliver it to the Registry Office. Failure to do so will not result in your withdrawal from being processed.
- 7. Press "logout" in the Portal to exit the system.
- 8. The student's transcript will show a "W" for the corresponding course.

#### Total Withdrawal

- 1. Access the NEXT Portal. There you will use your official UPR email account to authenticate.
- 2. Once you have been authenticated, the portal will show you several icons. Select "Total Withdrawals".
- 3. Read the instructions carefully.
- 4. Mark the reasons why you have decided for Total Withdrawal.
- 5. Press the "Submit" button.
- 6. Print the document. Press "logout" to exit the Portal.
- 7. Look for the signatures in the same order as they appear in the document.
- 8. Deliver the total withdrawal document to the Registry Office.

#### **CLASS ATTENDANCE**

The University of Puerto Rico at Ponce, in order to ensure a healthy administration of financial aid funds and to comply with the pertinent standards for Federal Student Aid (FSA) programs, establishes the elements to be considered to promote students class attendance, motivate them to remain active academically and maximize the use of economic resources to obtain a academic degree. Attendance to classes by students in our university system is mandatory. Therefore, Circular Letter 19-03 Attendance Census Procedure is established to comply with the active regulations for financial assistance programs received by eligible students of this institution. Within the circular letter, the validation period, and the period to open the process in the Portal were defined.

The professor will be obliged to access the portal (https://portal.upr.edu), to report the census data. Students could be affected in their financial aid award. The circular letter provides review and appeal mechanisms on the data reported in the attendance census.

# PROTOCOL ON THE PROCESSING OF ACADEMIC EXCUSES FOR THE PARTICIPATION OF UPR-PONCE STUDENTS IN ACTIVITIES AND EVENTS OFFICIALLY RECOGNIZED BY THE UPR

The 2002-2003-45 Certification of the Academic Senate of the University of Puerto Rico in Ponce approved the protocol on the processing of academic excuses for the participation of UPR-Ponce students in activities and events officially recognized by the University of Puerto Rico.

A. The Protocol to process academic excuses for students will be divulged to the university community by the Office of the Dean of Students. To achieve this goal, different means will be used, namely: orientation to the directors of the different disciplines and members

- of the directives of student organizations, bulletins and the EDFU course of the Counselling Department.
- B. The student will have available the document for processing of excuse (Request of Academic Excuses for Students) that must be completed when they have to be absent for more than one day of class to the institution.
- C. The student will request, in the Office of the Dean of Students, the Application for Academic Excuses and will deliver the duly completed application with a minimum of five (5) working days before the activity, except for exceptional circumstances.
- D. Once the professors are informed, they will decide with the student on the available replacement mechanisms and certify by signature the authorization of absence from classes.
- E. If the professor refuses authorization or raises objections, the Dean of Students will coordinate a meeting, promptly, to discuss the details of the application. The student, the professor, the Dean of Students and the Director of the program or representative who certifies it will be present. If an agreement is not reached, the student will follow the ordinary appeal procedure.
- F. The Dean of Students will sign the Academic Excuse application and once completed, will be responsible for notifying the corresponding professors by sending a copy of it through the internal mail.
- G. Once the absence is authorized, the Office of the Dean of Students, the professor and the student will keep a copy of the document.
- H. The student will be able to use academic assistance through existing tutoring programs.
- I. Upon return from the event the student will be responsible for collecting the material offered in class and make-up, as agreed with the professors, exams, written works, laboratories, etc.

#### REPORTING GRADES BEFORE THE DEADLINE FOR PARTIAL WITHDRAWALS

It is a requirement that each professor informs students about their performance before the deadline for partial withdrawal. The professor who by this date has not fulfilled the responsibility of having available at least one evaluation of the student will not be able to grade them with a grade lower than "C" in the course. (Certification 2008-2009-81 of the Academic Senate of the UPR in Ponce)

#### REVIEW PERIOD FOR FINAL EXAMS

A period of one or two days of academic recess will be allocated for review at the end of the semester and before the start of the final exams. During this period students will be free from all academic obligations so that they can devote that time to studying for their final exams. No partial or final exams will be offered during this period.

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#### **FINAL EXAMS**

The final exams of all courses will be written unless the nature of the subject allows the use of another means of assessment.

Professors will rate their students' work. They shall employ such methods as they deem most appropriate or as their Department has established. It is a prerequisite that teachers retain exams for one semester for subsequent inspection, if necessary.

The final exam period consists of seven days, after the end of the review period.

#### **GRADES**

The grades at the University of Puerto Rico at Ponce are as follows:

GRADES	VALUE NUMBER
A -Outstanding	4.0 per credit
B -Good	3.0 per credit
C -Satisfactory	2.0 per credit
D -Approved, but deficient	1.0 per credit
F -Failed	0.0 per credit
P -Pass	
NP -Not Approved (No Pass)	
W - Authorized withdfrawal	
I -Incomplete with provisional	
grades*	
F* - Stopped attending	
W* - Never attended	
NP* - Stopped atttending	
WP* - Never attended	

#### \*Provisional or Incomplete Grades:

Incomplete is a provisional grade ("I" + grade) given at the discretion of the professor to the student when for justified reasons they have not been able to meet all the requirements of the course in the stipulated time. This grade is determined based on the work completed by the student so far, plus zero (0) in the work not done.

This must be removed before the end of the next academic semester. The professor will change the provisional grade for a final one and communicate this action to the Registrar. If the professor does not report any change in the provisional grade, it will become final.

The granting of this qualification constitutes a privilege (not a right) for the student, after the course professor has analyzed the situation.

Grades of courses taken at other universities, other than the University of Puerto Rico, will only be validated (a "P" being noted in place of the grade) when students have obtained a grade equivalent to "C" or higher, including courses taken under Special Permission.

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#### **Grade report**

The Registration Office informs students of the availability of access to the portal (https://portal.upr.edu), so that they can see their grades at the end of each academic session. Students who have outstanding debts will not be given access to view their grades until they are canceled.

#### PROCESS OF CHANGING STUDENT'S GRADES

The 2017-2018-46 Certification of the Academic Senate of the UPR-Ponce establishes the Process of Changing Student's Grades:

- A. At the end of each semester, the Registration Office will inform each student of their final grades.<sup>1</sup>
- B. In case of not receiving the Grade Report, the student must communicate personally with said office during working hours, excluding holidays or others that apply.
- C. The Registry Office will report the reason or reasons why the student did not receive the Grade Report. If the reason is a debt, such a report will not be sent or delivered until it is satisfied.

#### CHANGE OF GRADE PROCEDURE

1. The professor will carry out the *Process of Change of Grade* as established by the Registry Office.

#### RETENTION OF DOCUMENTS RELATED TO QUALIFICATION

- 1. The professor will retain their roll book for a term. The professor will deliver a physical or electronic copy of it to the Department Director at the end of the semester.
- 2. In the case of professors on a service contract, leave or recent retirement, the academic department will retain the relevant documentation.

#### REVIEW PROCESS OF THE FINAL GRADE OF A COURSE

In case the student is not satisfied with the grade obtained, he will have the first fifteen (15) school days of the next semester to claim his grade from the professor. The student will initiate the process by means of a written communication to the professor. The professor will have fifteen (15) school days to inform the determination on the student's claim. After reviewing the evaluation of the final grade, if applicable, the professor will

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<sup>&</sup>lt;sup>1</sup> The Academic Senate of the University of Puerto Rico at Ponce is committed to a policy of equal treatment, including gender awareness. The wording of this text with the use of masculine to refer to people of both sexes, in the "unmarked" sense that is common in Spanish for this grammatical gender, has been adopted for reasons of coherence with the legal documents and regulations on which this text depends, and in no way implies forgetting the equality of women.

follow the Grade Change Procedure. If the professor is not available due to non-renewal of contract, being on leave or retirement, the student will go to the Department Director to which the professor is assigned to start the procedures. The Department Director will contact the teacher in writing to inform the determination of the student's claim. In the event that the professor does not attend the complaint, the Director will assume the responsibility of completing the grade review process.

- 1. If the student is dissatisfied with his claim for the modification of grade, the student will submit in writing a request for review (form) of qualification to the Director of department where the professor is assigned. The director will have ten (10) school days to report the determination on the student's claim and make his recommendation.
- 2. Within this period, the Director of the Department must meet with the student and the professor and listen to the arguments of both parties. The professor must present the evaluation criteria stipulated in the course syllabus used to award the grade. Based on the evidence presented and the interviews, the Director shall communicate their determination to the parties in writing. The revised final grade must not be less than that originally obtained by the student.
- 3. The Director shall maintain a file containing all related documents until the end of the semester or the appeal process, if applicable.
- 4. If the student or professor is not satisfied with the decision of the Department Director, they may appeal to the Qualifications Appeal Committee, who will have twenty (20) school days to address the student's or professor's complaint. The appeal brief should clearly state why the final grade in dispute is or is not correct and why you are not satisfied with the above decision. The student or professor must submit his or her appeal to the Committee within ten (10) school days from the date he or she receives notice from the Director or from the date on which the Director's term expires.
- 5. Those cases in which the student is a candidate for graduation or that the Dean of Academic Affairs understands is meritorious, the case will be attended during the same academic session in which the request for review is filed.

#### COMPOSITION OF THE GRADES APPEAL COMMITTEE

- 1. The Grades Appeal Committee shall be composed of: The Dean of Academic Affairs or his representative, two (2) tenured faculty members and two (2) alternate faculty members all elected by the faculty, two (2) student representatives, and two (2) alternates selected by the General Student Council. The term of the committee shall be two (2) years.
- 2. The Committee shall be chaired by the Dean of Academic Affairs or his representative.
- 3. The Committee will be activated at the request of the student or professor through the Dean of Academic Affairs.

#### GRADES APPEAL COMMITTEE PROCEDURES

- 1. Upon receipt of the appeal, the Committee will study and evaluate the evidence and may request additional documents if it deems it necessary. The Committee may also interview the parties involved, meaning the professor and the student.
  - In the event that the Committee deems it necessary to summon one of the parties involved to an interview or to grant a hearing, it shall offer equal time to the other party.
  - The professor and the student will have direct communication with the president
    of the Committee, either in person or with the help of the necessary electronic
    or telephone means. The Committee may request advice from experts in the
    field while preserving the anonymity of the parties involved.
  - In the event that any member of the Committee understands that they have a conflict of interest, they are exempted, and the alternate will take their place.
  - The Committee shall meet no later than 10 working days from the date the case was received. The Committee shall issue its decision and notify the parties no later than 20 working days after the appeal was received. The appeal Committee's decision letter shall include an explanation and shall be sent to all parties who have been informed of the case (student, professor, and Department Director).
  - In the event that the decision favors the change of grade, the Committee, through the Dean of Academic Affairs, will inform the student, the professor and the Registrar's Office to proceed with the change of grade. The revised final grade must not be less than that originally obtained by the student.

#### PRINCIPLES OF CONFIDENTIALITY

The appeal process adheres to the strictest canons of confidentiality and professional ethics by all parties involved: student, professor, Department Director, and members of

the Grades Appeal Committee. The official custodian of the Final Report will be the Dean of Academic Affairs.

#### **ACADEMIC PROGRESS**

(Certification 55-2016-2017, Governing Board)

The provisions contained in Certification 55-2016-2017, of the Governing Board, constitute the institutional policy of the University of Puerto Rico, which defines the academic eligibility of its students for participation in the University's Financial Aid Programs. The purpose of these provisions is to ensure the best possible use of financial aid programs and to encourage students participating in these grants to achieve adequate academic progress, towards the achievement of the degree, in accordance with the provisions for which the student qualifies in their program of studies.

These rules will apply to students who are classified in associate degree programs, baccalaureates, transfers and special permits.

#### APPLICABILITY RULES

1) The student must reach at <u>least</u> the academic index according to the number of credits attempted.

	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	-	-	-	-	-

2) You will be required to pass a certain percentage of the credits <u>attempted</u> during the academic year.

Freshman	57%
Second Year Student and up	67%

3) You will be able to try up to **150%** of the credits required in your program. Those students in an Articulated Transfer agreement must take, **in the unit of origin**, the

credits that appear in the contract, which can vary from one (1) to three (3) years of study, depending on the requirements of each program and each campus or unit of the system where they are interested in moving.

- 4) The student may receive financial aid for second concentrations, second baccalaureates, minor concentration, or professional certifications, as long as they are duly authorized.
- 5) Students who come from a transfer or are reclassified within the same unit, their eligibility assessment will be based only on credits validated towards the maximum of 150 percent (150%) of the credits allowed by these standards or towards the maximum time a graduate student must complete the degree.
- 6) A student who is readmitted to the faculty or program in which they were previously classified will be evaluated in accordance with the rules active at the time of readmission. Students who are readmitted to the same academic program will be evaluated at the end of the subsequent academic year. Any student who is readmitted to a new faculty or program will be subject to the same criteria as set forth above for reclassification.
- 7) Any student who attends the summer may request the Registrar to reassess their academic progress after the end of the session; if they meet the eligibility criteria to participate in Financial Assistance Programs, they will not have to apply for Review.
- 8) A student may repeat a course\* passed with a grade (**A**, **B**, **C**, **D**) only once, according to the Federal Aid Student Handbook (34CFR668.2(b)). The student who has not passed a course previously (**F** or **W**), there is no limit to the number of times they can repeat them.
- 9) Academic Progress will be assessed at the end of the academic year.
- 10) Curricular revisions are not retroactive.

\*See section Registration Fee

#### COURSE SELECTION AND ENROLLMENT

Course selection or academic counseling is the process by which, with the advice of a professor, the student selects the courses they will take the next academic semester. This process is carried out in the departments during the period stipulated according to the Academic Calendar.

The student who does not comply with the academic counseling process will not have a turn for enrollment, therefore, it will be up to him to choose the courses and sections on the last day of the process.

Enrollment is the process by which the student selects the courses and sections that correspond to take in the following semester, according to his academic counseling. The registration period is established in the Academic Calendar; this is done online or at the University facilities on the days and times indicated.

#### REPETITION OF COURSES

If a student repeats a subject in which he obtained "D" or "F", only the best grade will be computed in their index. The lowest grade will remain noted in the academic record. The repetition of courses with "C", will only be allowed in exceptional cases with the prior authorization of the Dean of Academic Affairs. (Certification 1998-1999-17 of the Board of Trustees).

If a course has been repeated with a grade of "C" or "B", the grade of both courses will be counted if the grade in the repeated course is "C", "B" or "A" and when it is going to be evaluated for grade, then, the best grade will be counted. Both grades and credits are considered in the calculation of the general index.

For Veterans beneficiaries, the Veterans Administration, governed by 38 CFR (Code of Federal Regulations) does not pay for repetition of approved courses with the grade of **A**, **B**, **C** or **D**. The Veterans Administration will only pay for repetition of failed courses (F) or courses in which a minimum grade is required.

#### ACADEMIC INDEX

The Academic Index is the way used to measure a student's academic achievement. It is computed by dividing the total number of honor points by the total credits accumulated in the courses in which the student has received a final grade, including failures. The points result from the value assigned to each note: A=4; B=3; C=2; D=1; F=0, I=provisional rating.

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#### General index

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

#### **Graduation index**

It is calculated taking into consideration all the grades obtained in the required courses in the curriculum for which the student applied for graduation. This is used to bestow honors.

#### **Specialty or concentration index**

It is calculated taking into consideration the grades obtained in the specialization courses of the requested degree.

#### **Academic Retention Index**

The minimum academic index of students at the end of the semester will be determined according to the 2002-2003-32 Certification of the Academic Senate of the UPR-Ponce.

To determine the minimum index required in the table, it is necessary to identify the number of credits accumulated by the student. For example: if the student has 25 accumulated credits, their retention rate will be 1.76.

The student will be suspended for academic deficiency if he does not meet this minimum index at the end of each year.

See the Retention Index table on the next page.

## RETENTION RATE 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	-	-	-	-	-

#### PROBATION AND SUSPENSIONS

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

At the end of the academic year, the accumulated index of each student will be compared with the corresponding retention rate. If the cumulative rate is less than the retention rate, you will be notified of the suspension for academic deficiency through an official letter. This standard will be of general application and will include those students who study during a semester of an academic year.

- a. When the cumulative ratio is less than the retention rate by a margin not exceeding two-tenths (0.20), you will be allowed to enroll in probative status in the next academic year. You will need to fill out a form at the Registry Office for the probation to be certified by the Registrar.
- b. When the accumulated index is less than the retention rate by a margin greater than two tenths (0.20), the student will not have the right to probation and will be suspended, having to remain disconnected from the University for one academic year.
- c. If a suspended student whose retention rate does not exceed 30 hundredths (0.30), considers that he has a justified cause for his deficient academic achievement, he can

make a request for consideration of probation to the Academic Achievement Committee. The student must begin the process to request this evidence by attending an interview with the Counselor, who will inform him about the procedure to be followed for the application.

d. After meeting with the Counselor, the student will submit a formal request for probation accompanied by the evidence supporting their case addressed to the Academic Achievement Committee through the Registrar's Office. This Committee will evaluate the merits of the petition, may interview the student and make the corresponding recommendation to the Dean of Academic Affairs for final approval. The Registrar's Office will notify the student of the decision. The suspended student who has requested probation and who is not satisfied with the action taken by the Committee, may request a reconsideration before the Chancellor.

In extraordinary cases, with the recommendation of the Director of the Department and the Dean of Student Affairs, the Dean of Academic Affairs may respond to requests for consideration of probation of students with a deviation from the retention rate greater than 30 hundredths (0.30). (Certification 2006-2007-09, Academic Senate UPR-Ponce)

The student who is suspended for academic deficiency will have to remain disengaged from the University of Puerto Rico during the next academic year before being eligible for readmission in probationary status and will not be able to accredit courses taken at another institution during that period. After the end of the year, you can request probation.

The probationary period shall be one academic year. The academic director will structure the student's academic program according to the guidelines indicated for this purpose by the Academic Achievement Committee.

A probationary student's program will conform to the following:

- a. The student will repeat as many courses with "D" or "F" as necessary to reach the minimum retention rate with the prior authorization of the Achievement Committee or the Dean of Academic Affairs.
- b. You will not be able to take more than 15 credits or less than 12 per semester or fourmonth term. In exceptional cases, where less than 12 credits or more than 15 credits are required, the Achievement Committee or the Dean of Academic Affairs will approve your program.
- c. You must approve these credits with a minimum average of 2.00 or reach the retention rate.
- d. No partial withdrawal will be given without the authorization of the Director of the Department to which the student is assigned or the Dean of Academic Affairs, after an evaluation of the student's academic performance. No total withdrawal will be given without the prior authorization of the Academic Achievement Committee or the Dean of Academic Affairs.

When, due to special circumstances, the Academic Achievement Committee authorizes the student, the student may request the restitution of their probation by means of a readmission request. This will be for two semesters if the total drop occurs in the first semester. When the

total withdrawal occurs in the second semester, the restitution will be for one semester if the Achievement Committee so authorizes.

The regular student in probation who, despite meeting the established requirements, does not reach the minimum retention rate, will continue under probation as long as the Achievement Committee authorizes it. A student who does not meet the established requirements will be suspended during the next academic year.

If a second or third suspension occurs, the student may choose to return to study in probative status, after one academic year has elapsed.

A fourth academic suspension represents a **permanent** separation from the University of Puerto Rico System.

#### Cases of readmission-transfers on Probation

According to the 2004-2005-66 Certification of the UPR-Ponce Academic Senate, the procedure for requesting readmission or transfer on probation is as follows:

- 1. If it is not their fourth academic suspension, the student may request readmission-transfer in probation to the University of Puerto Rico in Ponce once he meets the suspension time due to academic deficiency and has completed the requirements of the institution that originated the suspension.
- 2. Suspended students interested in requesting a readmission-transfer to other units of the University of Puerto Rico System may do so if they obtain a written certification from the receiving unit indicating that it is willing to receive and evaluate the case.
- 3. The reasons for considering an application for readmission-transfer on probation to the University of Puerto Rico at Ponce will be:
  - a. change in the area of study.
  - b. change of residence for justified reasons.
  - c. personal and family responsibilities that do not allow you to return to your home unit.
  - d. medical treatment.
  - e. determination of a court in a personal case.
- 4. This institution, as a receiving unit, will not admit suspended students when admission to other academically better qualified students has been denied due to reasons of quota or space.

#### VALIDATION OF CREDITS

Any student who has taken courses in other institutions of higher education may request a validation of credits to the Director of the Department to which he belongs. The validation of the courses is governed by the Certification 2002-2003-34 of the Academic Senate of the UPR-Ponce - General Criteria for the Validation of Courses. It establishes the following criteria:

- 1. General Criteria for the Validation of Courses from Other Units of the University of Puerto Rico System. The following regulations are established regarding the validation of courses from other units of the University of Puerto Rico System:
  - a. Courses to be validated from another unit of the University of Puerto Rico system that have the same coding as a course of the University of Puerto Rico. At the University of Puerto Rico in Ponce they will be validated automatically. Uniform coding in the university system ensures that the course meets the criteria of uniformity of description and curricular content.
  - b. The course does not have the same coding, the guidelines established for the validation of courses from other Higher Education Institutions of Puerto Rico (which appears in Criterion 2) will be followed.
- 2. General Criteria for the Validation of Courses of Other Higher Education Institutions of Puerto Rico. The following general criteria are recommended for the validation of courses from other Higher Education Institutions in Puerto Rico.
  - a. It will be evaluated if the institution is a bonafide institution, accredited by both the Puerto Rico Board of Education and the Higher Education Commission of the "Middle States Association of Colleges and Schools". If the institution is not accredited, courses from this institution will not be validated.
  - b. The description and content of the course to be validated will be evaluated as presented in the course syllabus, so that it contains at least 75% of the course content offered by the University of Puerto Rico in Ponce. In those cases where it is difficult to obtain the course syllabus, the institution's catalog may be used.
  - c. Equivalence may be established between a set of courses with a course or set of courses of the University of Puerto Rico in Ponce, provided that that set represents the 75% mentioned in criterion "b".
  - d. Only that course approved with a grade of "C" or more will be validated.
  - e. Only up to a maximum of 50% of the credits of courses of the specialty to which the student requests will be validated.
  - f. A course with a lower number of credits will not be equivalent to one with a higher amount, except for those whose number of contact hours is equal to or greater than the number of contact hours of the course for which it will be validated. In these cases, the student will be required to complete the number of credits with higher courses from the area.
  - g. Each academic department will establish whether the equivalence of a sequence course will be done in its entirety or equivalence can be established for each course of the sequence.

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- h. In the case of sequence courses to be approved in full, the student must have approved both parts with "C" or more.
- i. The course validation form must be accompanied by the official transcript of credits from the student's home university.
- j. In the case of students newly admitted to the University of Puerto Rico in Ponce, the recommendation for validation of courses will be made at the time when said student is considered for admission.
- k. The validation will be official after the student enrolls in the institution.
- 1. The Departmental Curriculum Committee should be consulted in cases where there is doubt about the Department's course validations.
- m. Any validated course will appear on the credit transcript with the letter "P" (passed or approved) and will have no honor points.
- n. The accepted validations will be based on the courses offered by the University of Puerto Rico at Ponce. Courses that do not have equivalence at the University of Puerto Rico in Ponce may be used to complete free electives, if they have the academic program. The student who is in a transfer program and has approved courses that can be validated in the receiving unit will process his application for validation in that unit once they have been accepted.
- 3. General Criteria for the Validation of Courses of Higher Education Institutions outside of Puerto Rico. For Higher Education Institutions outside of Puerto Rico, the following guidelines will be followed:
  - a. If the institution is an institution located in the United States of America, it will be verified that the institution is accredited by one of the accrediting bodies recognized by the *Council on Post-Secondary Accreditation (COPA)*. If the institution is not accredited, its courses will not be validated.
  - b. If the institution is located in another country other than the United States of America, it will be verified to check if the institution has collaboration agreements for the exchange of students with the University of Puerto Rico or is a *bonafide* institution in that country. Bonafide is understood as an institution recognized by the government and that has some mechanism of accreditation of its programs and services, either external or internal. If this condition does not exist, courses of the aforementioned institution will not be validated.
  - c. The courses will be validated following the criteria established in the previous paragraph. Since there is a possibility that the grading system of Higher Education Institutions outside 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 relevant equivalences, so that it is respected that only courses approved with "C", or more are validated.

#### AUTHORIZATION TO TAKE COURSES AT OTHER INSTITUTIONS

The Special Permission is authorized only to students with satisfactory academic progress for the purpose of studying in another unit or institution for a fixed period, with a view to returning to their home unit to continue their studies. The student must have studied at least one semester in their home unit before a Special Permission can be granted. In exceptional cases, the Dean of Academic Affairs may authorize permission to students who do not meet the above conditions. As a rule, up to a maximum of 50 percent of the credits required for the degree may be taken. For a summer session, up to a maximum of seven credits will be authorized. The Dean of Academic Affairs may authorize up to 10 credits in meritorious cases.

The forms will be provided and processed by the Registrar's Office. To be valid, the application must have the authorization of the Director of the Department, the Dean of Academic Affairs and the Registrar with the accumulated average and number of credits approved. The student can have a maximum academic load of 15 credits and your acceptance will depend on the existing places in the requested courses. The student will have the responsibility of processing a special substitute permission when they do not enroll in the courses of the original permission. Students from accredited university institutions, other than the University of Puerto Rico, may apply for permission at their institution and their acceptance will depend on the existing quota in them. It should be clear that the final approval of a Special Permission will be subject to the availability of offer and space at the receiving unit or institution.

#### **GRADUATION**

The requirements for obtaining a degree at the University of Puerto Rico at Ponce are as follows:

- 1. Pass the required courses with a general and specialty index of 2.00, with the exception of the Elementary Education Program. According to Article 7 of Regulation 8146 of January 25, 2012, any applicant to be certified to exercise the functions of a teacher must have a general academic and specialty index of 3.00 or more.
- 2. Students with a graduation index: 3.40 to 3.69 will graduate Cum Laude (with honors); those with a graduation index: 3.70 to 3.94 will graduate Magna Laude (with high honors) and those who reach a graduation index: 3.95 to 4.00 will receive the degree Summa Laude, according to the 2014-2015-31 Certification of the Academic Senate of the UPR in Ponce. To be eligible for graduation with honors or high honors, the student must:
  - a. Have passed at least 50 percent of the credits required for graduation in the unit.
  - b. Finish the degree in the stipulated time according to the rules established to determine academic progress.
  - c. Not have repeated more than 15 credits of the program in courses in which you have obtained F or have withdrawn.
- 3. Approve at the University of Puerto Rico in Ponce the last 28 credits required in the final phase of their studies. In exceptional cases this rule may be waived by agreement of a committee consisting of the Director or Coordinator of the program, the Dean of Academic Affairs, the Dean of Student Affairs, and the Registrar.
- 4. Comply with the payment of all debts contracted with the institution.

- 5. Officially apply for the degree or certification of compliance with requirements by means of the corresponding request at Registration at the beginning of the semester or period in which you must complete the academic requirements of graduation.
- 6. Have been recommended to the degree by the corresponding faculty.
- 7. Not be under disciplinary action.

The University holds graduation exercises once a year at the end of the second academic semester. All degrees are conferred on that occasion. The candidate who has met the requirements by the end of the summer or the first semester, can apply for a certification of compliance with requirements.

#### Automatic graduation (Certification 85-2005-2006, Board of Trustees)

The institutional units will graduate all those students who have completed their academic requirements for the degree or program in which they are classified and will require from them the payment of the corresponding graduation fee.

However, it is provided that in the case of students who have been admitted to complete other curricular options, such as, for example, a curricular sequence or a second concentration, and who also demonstrate satisfactory academic progress, they may be granted a reasonable additional time to complete it, before proceeding to graduate from the program in which they are classified.

The departments and faculties that award academic degrees will be responsible for collaborating with the corresponding registration office in the monitoring and evaluation of potential candidates for graduation, in order to comply with the provisions herein.

#### **Changes to Graduation Requirements**

The University reserves the right to make changes in the different programs and in the requirements for a degree, but as a rule the student must graduate according to the program in effect at the time of his entry to the institution. However, students who do not meet the requirements of the degree in the term set out in their programs and those readmitted will be governed by the provisions applicable to the class in which they graduate.

## Student Services and Activities



#### PART V STUDENT SERVICES AND ACTIVITIES

The Deanship of Student Affairs at the University of Puerto Rico at Ponce is committed to the integral development of students, both psychologically, intellectually, and personally. Develop effective and efficient services through various offices such as Counseling and Psychological Services, Medical Services, Admissions, Financial Assistance, Registration (who also has a Certifying Veteran Officer), Office of Extracurricular Activities (which also provides information on jobs and lodging), Office of Quality of Life, Office of Technological Assistance, Athletic Program, Student Associations, Student Council, and Official Groups such as Choir, Band, Theater and "Dance Team". Among the objectives of the Deanship is to expand the educational dimensions and social development of students through social, cultural, educational, and athletic activities that complement the academic phase.

#### PROGRAMMATIC OFFICE OF FINANCIAL ASSISTANCE

The main function of the Programmatic Office of Financial Assistance is to guide and provide students and parents with access to the financial aid available to cover the costs related to university education. For this purpose, the office is responsible for administering and granting aid from federal, state and private funds, according to the applicable rules, regulations and procedures.

Grants are approved as scholarships, loans, work or combinations thereof. The granting of aid is carried out according to the needs, study expenses and the availability of funds.

#### BASIC PARTICIPATION REQUIREMENTS FOR FINANCIAL AID:

The basic requirements for a student to be eligible for any of the grants administered by the Programmatic Office of Financial Assistance are as follows:

- 1. Complete the Free Application for Federal Student Aid (FAFSA)
- 2. Have an eligible Expected Family Contribution (EFC)
- 3. Indicator, based on a formula at the time of completing the FAFSA, used to calculate the amount of financial aid you will be able to receive.
- 4. Be enrolled at the University of Puerto Rico at Ponce in a program leading to an eligible academic degree.
- 5. Enrolled courses must be conducive to the academic degree you will pursue.
- 6. Demonstrate economic need based on the Cost of Study (estimated by the University), EFC and the financial aid granted.
- 7. Be a citizen of the United States or be classified as an eligible non-citizen.
- 8. Comply with the Satisfactory Academic Progress Policy (PAS) see <u>Certification 55 of</u> 2016-2017
- 9. Not be a debtor of federal student scholarship or student loan programs

#### **Apply for Economic Assistance**

Any student interested in participating in any of the financial aid programs may electronically file the Free Application for Federal Student Aid (FAFSA) available in <a href="www.fafsa.gov">www.fafsa.gov</a>. On the FAFSA, you will indicate personal information including the family's economic situation. To

evaluate the applicant's eligibility for financial aid, the University of Puerto Rico at Ponce must be included in the list of institutions that will receive the application. To facilitate the search for the UPR in Ponce within the application, you can refer to the Federal School Code 009652.

#### **Financial Aid Application Status**

Any student who has completed the FAFSA should contact the Program Office of Financial Assistance to learn the status of their application. The fastest and most effective way is to access the Services Portal at the following email address: <a href="mailto:portal.upr.edu">portal.upr.edu</a>. It should be noted that the application may take up to three working days to be processed by the Federal Department of Education and received by the University.

In the event that the data reported in the FAFSA must be verified, the Financial Assistance Application Verification Process will be executed, and the student will present the documents required to evidence the information to be verified. The documents that each student must present will be listed in the student's account on the Services Portal (portal.upr.edu).

#### **Types of Financial Aid Grants**

#### I. Scholarships

#### A. Federal Pell Grant

The Federal Pell Grant will be awarded to students enrolled in an undergraduate program at the institution and who are eligible according to the requirements. The amount to be awarded will depend on the costs of study, total credits enrolled per semester, and the Expected Family Contribution (EFC) calculated by the Federal Department of Education based on information provided by the student on the FAFSA.

#### B. Federal Supplemental Educational Opportunity Grant (FSEOG)

It will be awarded to students enrolled in an undergraduate program at the institution and who are eligible according to the requirements. The award of this scholarship is based on the EFC, the economic need and the credits enrolled. This aid is granted in accordance with the budget allocated to the institution and can only be considered as long as there is a fund available. You are not required to fill out another application other than the FAFSA.

#### C. Private Scholarships

These scholarships are allocated by various firms or private agencies that provide funds to help students. Some sponsors delegate the selection of candidates to the institution and the institution uses the rules laid down in other aid programs. In other cases, students must apply directly with the agencies and meet the requirements they define.

#### D. Certification 4

This Certification repeals Certification No.50 (2011-2012), known as: Institutional Policy on Tuition Fee Waivers at the University of Puerto Rico, which replaces the tuition fee waiver with a model that considers the economic need of students. This Certification also repeals Certification 50 (2018-2019), known as the Regulations for the Granting of Financial Aid at the University of Puerto Rico.

The following categories eligible for financial aid are recognized:

- 1. Students eligible for honor registration
- 2. Employees
- 3. Dependent children and spouses of employees
- 4. Student Representatives to the University Board
- 5. Student Representatives to the Governing Board
- 6. Athletes
- 7. Musical and theatre ensembles (bands, choirs, singers, tunas)
- 8. Teaching and Research assistantships

The granting of financial aid within these categories will be carried out in accordance with the general and specific requirements, terms and conditions established herein.

For the granting of financial aid contemplated by this Policy, all students, undergraduates and graduates must complete the Federal Department of Education's Application for Federal Financial Aid (FAFSA), regardless of their economic situation.

To be eligible for this financial aid, the annual adjusted gross family income must be equal to or less than one hundred thousand dollars (\$100,000), except for graduate students who receive a teaching or research assistantship. The UPR will provide additional assistance to cover the remaining needs, after receiving any type of financial aid or scholarship, including the Pell Grant and the scholarships granted, under the Regulations for the Granting of Economic Assistance of the Special Fund for Scholarships of the UPR (Certification No. 11, 2018-2019, of the Governing Board, as amended) and the Regulations for the Granting of Financial Aid of the UPR (Certification No. 50, 2018-2019), of the Governing Board, as amended).

#### II. Work and Study Program

This program offers part-time employment during the academic period for eligible students in financial need. Hourly pay is defined based on applicable federal, state, and regulatory laws. At the time of making the determination of hours to work, the student's study program should be considered, as well as the academic progress of the student and the availability of funds of the program.

Jobs are made available in different offices of the institution or in external entities, which would vary, according to the provisions of federal regulations and agreements between the organization and the University. To participate in the program, the student must file an electronic application that will be published by the Financial Assistance Office. The date and time on which the

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application will be available will be notified by email and bulletin boards and will be published at least 1 month in advance of the beginning of the academic period. The amount of space to be occupied will depend on the need for jobs and the budget of the program that the University has.

To participate in the program during the summer (June), an electronic application will also be published at the end of the second semester of the academic year. For the summer, priority could be given to students who have not participated in the program during the regular academic period.

#### III. Federal Loan Program

This program offers low-interest loans for eligible students to help cover study costs. It will be necessary to fill out other electronic documents before receiving a loan payment. To apply for a loan and learn about the additional documentation that must be submitted, the student must visit the Programmatic Office of Financial Assistance after the academic period has begun. It is important that the applicant has filed the FAFSA and completed any verification requirements, even if they understand that they will be ineligible to the other aids.

#### **Disbursements**

For Pell Grant funds, the University will issue two disbursements, the tuition net costs and other permitted charges, directly to the student. The first disbursement, which will not exceed one thousand dollars (\$1,000), is issued during the first days from the beginning of classes. The second disbursement, known as surplus, is issued after the university has deducted from the scholarship the institutional charges allowed. At the time of issuing this last disbursement, we proceed with the payment of other aid that has been granted.

In the Work and Study program, an attempt is made to issue a monthly disbursement. Each academic semester, the university sets the payment schedule.

For student loan programs, one disbursement is issued per semester. The date of the first disbursement will normally take up to a month after you have completed the process of applying for and accepting a loan.

To be eligible to receive any disbursement, the student must attend classes from the beginning and continue to attend according to the institution's attendance policy. The University will proceed to stop the disbursements of financial aid, and to apply any applicable regulations or policy, to students who have not attended from the beginning or stop attending the courses. The institution will provide the mechanisms for a student to request a review or appeal on attendance information provided by professors.

#### **Return of Funds Policy Title IV (R2T4)**

#### **Purpose**

Clearly establish the process to be followed in cases of students with formal and informal total withdrawal, who never attended their courses or stopped attending before the end of the academic period and is a beneficiary of federal Title IV funds.

The Financial Aid Tax Office is responsible for calculating the return of Title IV federal funds applicable to a student with granting thereof.

#### **Relevant information**

Students are responsible for attending enrolled courses that are taught in person or meeting academic requirements in any permitted course modality, in order to receive federal funding.

Professors have the obligation to notify the attendance of their students, as established in circular letter 19-03 (2018-2019), Procedure for the Attendance Census.

The academic calendar establishes that the deadline to process a formal withdrawal is the last day of classes of the semester.

Formal total withdrawal occurs when the student intentionally withdraws from all of their courses.

Informal total withdrawal occurs when it is evident that the student stops attending all their courses, according to the Attendance Census.

#### **Return Determination Process**

- The students present themselves to the Fiscal Office of Economic Assistance for the signature that certifies that the study was done (R2T4) and authorizes to continue with the procedure.
- The Ponce Campus uses the online tool provided by the Federal Department of Education's FAA as a mechanism to calculate the return of funds that apply.
- The withdrawal date, as it is understood, is the earliest date in which the institution becomes aware of the student's intention to withdraw. In the event that the validation period of the Attendance Census is not yet available, the date in which the student requested the form on the portal (NEXT) will be taken into consideration.
- Student demographic information, tuition costs, and Pell, SEOG, and Direct Loan grants are collected.
- The FSA program provides the calculation of the percentage of attendance that the student had and applies the same to the corresponding aids.
- The calculation of the percentage earned from Title IV funds shall be determined by the following formula:

Days completed (attending)

Total school days

The right to the full enjoyment of the aid granted of Title IV will be subject to the fulfillment of 60% or more of attendance to classes, according to the Attendance Census.

- If the student fails to comply with 60% of class attendance, the student will assume the determined fiscal responsibility that corresponds to them, according to R2T4.
- If the student receives Direct Loan funds and any corresponding refund, it will be made first to the Direct Loan account thus reducing the repayment to the student. Therefore, the student will assume the determined fiscal responsibility that corresponds to them, according to R2T4.
- If a student is withdrawn and enjoys the university medical plan, the cost of the health plan will not be considered as part of the tuition costs for the calculation of the return.
- Once the amount of the refund has been determined, the Accounting office is asked to transfer funds to the applicable aid account.
- As soon as the funds are available in the corresponding fund account, the Finance Office will proceed with the return of funds to G5.
- Once the return of funds has been reflected in the information systems of the Federal Government, the necessary adjustments of the disbursements issued to the student will be completed.

#### **Informal Total Withdrawal**

- Once the validation period of the Attendance Census is completed, which includes the first 20 school days, students who have been reported to have never attended all or any of their courses will be evaluated.
- The Financial Aid Fiscal Office will begin the process of contacting the student to identify that, in fact, the student is not attending and will be oriented the student on the administrative options according to their intention. If in 20 calendar days it is not evident that the student had academic activity, the R2T4 study will be carried out to determine the amount to be reimbursed to the federal government. This action generates the determined fiscal responsibility that the student will assume.
- The same refund determination process will apply as a formal total withdrawal, except for the date of withdrawal, which will be the last date of attendance at classes as indicated in the attendance report.

#### Return of funds without study (R2T4)

• Title IV funds will be returned to G5 without an R2T4 study when the Office of Financial Assistance determines overpayment to a recipient of federal funds either because they have not attended any of their courses or there is a change in their granting.

• When there is a letter indicating the amount to be returned, the transfer of funds will be requested to complete the corresponding return. Once the return of funds has been reflected in the information systems of the Federal Government, the necessary adjustments of the disbursements issued to the student will be completed.

#### DEPARTMENT OF COUNSELING AND PSYCHOLOGICAL SERVICES (CONSEP)

The Department of Counseling and Psychological Services (**CONSEP** in Spanish), attached to the Dean of Student Affairs, offers support services to students, such as: preventive and developmental interventions that enrich their personal-social, educational and vocational experiences.

The main purpose of the program is the maximum development of student potential, through an educational process that consists mainly of offering counseling and guidance that will allow the student to discover their skills and recognize their limitations, developing decision-making skills at a personal-social and academic level. Consequently, the student strengthens their personal-emotional and educational development that will result in their optimal development.

#### Mission

The Department of Counseling and Psychological Services (CONSEP) of the University of Puerto Rico at Ponce aims to help students achieve their personal, academic and professional goals through preventive, developmental and remediative processes in the personal-social, educational and life and career planning areas. Counseling, therapy and consulting services are offered on an individual and group basis.

To achieve this end, the Department has a professional staff that has the academic preparation, professional licenses and / or certifications required and the experience in the application of a combination of cognitive, affective and behavioral theories and intervention strategies that integrate human behavior in a multidimensional way. In addition, it collaborates with the staff, faculty and administration to improve the quality of life and the educational environment of the institution.

#### Vision

To become a multidisciplinary counseling and psychotherapy center to help students make personal, emotional, cognitive and psychosocial adjustments that result in their mental health and future academic performance in a framework of confidentiality and respect.

#### Goals

To achieve its mission **CONSEP** has established the following goals:

- Provide students with appropriate counseling processes that allow them to develop skills necessary for the solution to their problems.
- Provide accurate and up-to-date information that allows the student to become familiar with their social groups, educational scenario, community and work environment.

- Provide educational experiences aimed at academic progress and student wellbeing.
- Encourage the participation of the help professional as an advisor-consultant on matters related to the help services provided at **CONSEP**.
- Identify community resources (agencies, programs, services) that complement **CONSEP** services.
- Recruit people with the highest qualification in disciplines related to the help professions, such as: social worker, psychiatrist and full-time clinical psychologist.
- Encourage the evaluation and appraisal of the services offered at **CONSEP**.
- Promote research as part of teaching task.

#### **Description of Professional Counseling Services**

Professional Counseling services are offered by licensed professionals issued by the Examining Board of Professional Counselors of Puerto Rico, as established by Law 147 of August 9, 2002. This law defines professional counseling as a process of help that takes place through a personal and direct relationship in which theories, principles, methods and strategies based on scientific knowledge are used to promote the development and integral well-being of people.

The main functions in the practice of the profession are: counseling, evaluation, referral, consulting and research. These areas, related to each other, allow the professional to establish a comprehensive framework conducive to achieving their objectives.

#### Services Offered by the Department of Counseling and Psychological Services (CONSEP)

- **Individual Counseling** Individual help process that allows for greater understanding and self-knowledge, promotes emotional strengthening, and other factors that may interfere with the student's personal well-being. It can be aimed at the academic, vocational and / or personal area.
- **Psychotherapy** It is the informed application of clinical and interpersonal methods that derive from principles established in psychology with the purpose of assisting people in the modification of behaviors, cognitions, emotions or personal characteristics in the direction that the individual deems desirable.
- **Educational and Vocational Counseling** Offered at the individual or group level to address a wide variety of educational issues or concerns, including academic expectations, study skills, selection or change of concentration, time management, writing, identification of learning style, management of academic difficulties, and strengthening academic performance.
- **Social Work** It is a method of individual, couple or family intervention that, through a process of planned, confidential and mutually agreed help, modifies or solves problems and needs in the area of social functioning of students. Financial and housing aid, appointments with professionals or institutions of help and emotional support in decisionmaking processes and / or family or couple situations are coordinated.

- **Group Counseling** It is a process of help aimed at a group that has a preventive and remediate approach. It facilitates personal growth, difficulty management, resolution of life problems and acquisition of skills, using interpersonal support. It provides the opportunity to observe and listen to others solve their problems.
- **Support Group** Open group of students, convened by the support professional, where a welcoming environment is created among the members to share experiences or life situations. They are usually composed of people who share some type of problem that alters or modifies aspects of their normal functioning. Participating in this group provides support networks and new bonds with other students. The interaction between one and the other is under an environment of respect, resulting in a space to acquire tools and possible alternatives to general life situations.
- Career Center Evaluates and works with personality traits, values, interests, aptitudes
  and other characteristics of the student, related to their professional future and the
  transition to the world of work. Information is provided from catalogs of universities in
  Puerto Rico, the United States and other international universities, applications for school
  entrance exams.
- Crisis Intervention The process of assisting a person to find an adaptive solution to the events that precipitated the crisis. It is composed of five components: a traumatic dangerous event, a vulnerable state, a precipitating factor, a state of active crisis based on the individual's perception and the solution of the crisis.
- EDFU 3005 (Orientation Seminar for Personal Development and University Success) The main objective of this course is to facilitate the transition of students from high school to university, developing their potential in the personal-academic, vocational area and their adjustment to university life. Requirement for graduation from UPRP.
- Translational Behavioral Research Institute This Institute comprises the research division of CONSEP. In it, studies of psychology and applied counseling are carried out that benefit students and the community in general. In addition, students of the social sciences are enriched by research experiences at the undergraduate level and this in turn positively impacts their future goals at the graduate level or in the workplace.

#### Other Services:

- ✓ Referral Service to the Department of Counseling and Psychological Services The process begins once a UPRP physician or employee identifies the student with academic, family, or personal situations or problems. The referral form is sent digitally to all the staff of the Institution and can be found on the **CONSEP** website for easy access.
- ✓ Notifications of Absences The student who has had or will have three or more consecutive absences to their classes can request in **CONSEP** the notification of absences. The reasons are serious illness, certified medical condition, childbirth, death of a close relative, accidents or events that have an impact on health. It is required to present medical evidence or the necessary information to certify the veracity of the matter.

- ✓ Vocational Interest Tests The Harrington O'Shea test is offered to students enrolled and active at UPRP with vocational indecisiveness.
- ✓ Food Pantry CONSEP has a cupboard of basic necessities, with nonperishable food and lunch vouchers for students. They are received from donations made by the university community.

### **OFFICE OF THE STUDENT OMBUDSPERSON** (Certification 2014-2015-119 of the Governing Board)

The University of Puerto Rico, committed to use of dialogue, communication and of mediation as fundamental instruments for coexistence within the university community, affirms, as an expression of institutional policy, that student ombudsperson services of be offered.

The essential function of the Student Ombudsperson is to serve as a neutral entity to seek justice and equity in the solution of situations before its consideration. It provides informal and independent mechanisms for the resolution of disputes, such as: mediation, negotiation, intercession and conciliation. It has investigative power to objectively evaluate the complaints it receives and to render general annual reports on their services as well as special specific reports. It has the authority to act on behalf of the individuals or groups for whom it seeks just solutions, when authorized by the student. Its recommendations enjoy institutional recognition for achieving structural change. Although it does not have the power to make decisions, it does have the responsibility to promote or recommend quick and impartial solutions to situations that may generate other conflicts through dialogue with all parties. It also has a duty to proactively guide, educate and advise the university community on the duties and rights of students.

The services of the Student Attorney's Office must be offered in such a way that they are **accessible** to all students of the institution under the basic principles, with a clear attitude of **neutrality** regarding the claims of all parties involved. In addition, it must be characterized by respecting the **confidentiality** and privacy of the people involved, be **independent** in criteria, so it cannot be controlled by any particular sector of the university community.

#### Mission

The mission of the Office of the Student Ombudsperson is to ensure and help students to receive a fair and reasonable treatment in the resolution of conflicting situations with the university authorities and to contribute to the formal resolution of conflicts with regulatory bodies of the university or with a member of the academic community.

#### Goals

- 1. Offer accessible services to all students of the institution.
- 2. Offer with a clear attitude of confidentiality, neutrality, accessibility, and independence the claims of all parties involved. Evaluate the situations that will be governed by the knowledge of doing justice and the foundations in honor of the truth.
- 3. Offer services characterized by respect for confidentiality, in accordance with the law and with the privacy of the people involved.

4. Offer services with the independence of criteria, without being subordinate to any particular sector of the university community.

#### **MEDICAL SERVICES**

The Office of Medical Services cares for the physical health of students, from a medical point of view. Outpatient and first aid services are offered to all students regardless of whether or not they have the medical plan offered by the University.

To obtain external medical services, the student under the UPR medical plan can visit their private doctor by simply presenting the student medical plan card or a certification that will be provided at the Medical Services Office. If it is necessary to visit an emergency room, and you do not have the student medical plan card handy, you can receive services with your registration sheet and student ID card.

The student health plan covers from the first day of class to the day before the first day of class next semester.

The health policy covers the following services:

- 1. Hospitalization
- 2. Laboratories
- 3. Radiology
- 4. Consultations with specialists
- 5. Emergency room
- 6. Surgical Procedures
- 7. Pharmacy

Optional coverage

- 1. Dental
- 2. Major Medical

#### **Medical Insurance**

The amount to be paid for Medical Insurance may vary to the extent that the contract between the University of Puerto Rico and the supplier of the services changes. In the second semester, The Medical Insurance covers until the first day of class in August.

#### OFFICE OF SERVICES TO STUDENTS WITH DISABILITIES (OSEI)

The Office of Services to Students with Disabilities (OSEI) has been serving students with functional diversity since its inception in February 2005. Initially, work began with a proposal entitled: "Empowering University Students with Disabilities" from the Technological Assistance Program of the University of Puerto Rico (PRATP). Eventually the concept of TA was institutionalized in terms of infrastructure and human resources. At that time, it was inaugurated as the Office of Technological Assistance Services (OSAT). Since 2008, it has had the Technological Assistance Center (CAT) where it opened its doors in the Deanship of Student Affairs building for all students with disabilities. Our office also has attached the Student Association for Demolishing Barriers (AEDB), which brings together young people with and without disabilities who wish to work for the rights of the special need's population.

The Office of Services to Students with Disabilities (OSEI) is tasked with serving the population of students with functional diversity by offering them information services, guidance, workshops, training and technical assistance in areas related to TA, reasonable modification Reasonable modification is a reasonable accommodation, change, or adjustment in policies, practices, or procedures, and activities in the postsecondary environment, which are necessary to enable a student with functional diversity to have equitable access, to participate, benefit from, or enjoy the same activities, environment, or practices. Changes or adjustments that are made in the academic field are also considered for a qualified student with functional diversity to complete the tasks and duties of their study program. The services and/or modifications granted are based on the particular needs of each student with functional diversity.

and laws that protect people with disabilities. Among the activities that are coordinated from the OSEI, the following are included:

- 1. Provide guidance on reasonable modification.
- 2. Talks, information, training, technical assistance, advice, demonstrations, and research.
- 3. Referrals to government agencies that offer services to the population with disabilities.
- 4. Identify organizations with whom contracts can be established to provide TA services.
- 5. Monitor the level of student satisfaction with the services of the Technological Assistance Center.
- 6. Identify barriers to equipment and TA services and look for alternatives to eliminate them.

The University of Puerto Rico in Ponce (UPR-P) and the OSEI seek to promote the integral well-being of the community of students with functional diversity and facilitate their inclusion in all activities of university life.

#### Vision

To be the center of the process of facilitating systematic changes that promote the inclusion of people with disabilities in society.

#### Mission

Considering the changing needs of people with disabilities, through the use of technological assistance, our mission is to increase, maintain or improve their functional capabilities so that they reach their maximum potential.

#### **Objective**

Offer the student appropriate and timely services that complement their academic phase.

#### **Objectives**

- 1. Train students on Technological Assistance
- 2. Promote philosophy, vision, and mission regarding people with disabilities. (CERT. 143 2002-2003)
- 3. Identify the needs of students with disabilities.
- 4. Recruit and train volunteers.
- 5. Increase the level of empowerment among students.
- 6. Maintain a database of students and employees with disabilities.

The Office of Assistive Technology Services is tasked with serving the population of students with functional diversity by offering information services, guidance, workshops, training and technical assistance in areas related to TA, reasonable modification and laws that protect people with functional diversity. The request for reasonable modification is available at the OSEI or by contacting the office email: osei.ponce@upr.edu.

#### What is Reasonable Modification?

Reasonable modification is a reasonable accommodation, change, or adjustment in policies, practices, or procedures, and activities in the postsecondary environment, which are necessary to enable a student with functional diversity to have equitable access, to participate, benefit from, or enjoy the same activities, environment, or practices. Changes or adjustments that are made in the academic field are also considered for a qualified student with functional diversity to complete the tasks and duties of their study program. The services and/or modifications granted are based on the particular needs of each student with functional diversity.

#### **Process for requesting reasonable modification:**

This process begins by freely and voluntarily filling out the request for reasonable modification. The petition must be filed by the student with functional diversity directly at the Office of Disability Student Services (OSEI).

OSEI designated personnel will receive and evaluate requests for reasonable modifications and determine the eligibility of students with disabilities, based on the recommendations of specialists of that condition.

The recommendations of condition specialists and Rehabilitation Counselors from the Vocational Rehabilitation Administration (ARV) for this academic scenario will be discussed. In this analysis, the impact of the condition on the learning process and related areas will be considered, the current manifestations of the condition or conditions, the educational, progressive and medical history that is relevant to the impediment for which the reasonable modification is requested will be evaluated, among other information.

After the evaluation, the professors of the courses and the student with functional diversity will be notified of reasonable modifications and coordinated academic services.

\* For additional information refer to the Cert. No. 133 (2015-2016), Policy on Reasonable Modifications and Academic Services for Students with Disabilities Enrolled at the University of Puerto Rico. \*

The Office of Services to Students with Disabilities (OSEI) is governed by the provisions of federal and state laws which protect the rights of people with functional diversity and their access to higher education. Some laws are listed below, but are not limited to: 101-336, 42§12101, better known as the Americans with Disabilities Act (ADA), as amended, Rehabilitation Act 504 of 1973, as amended, 29 U.S.C. Sections 793(a) and 794 on Prohibition of Discrimination Against Disabled Persons, state laws, Act No. 238 of 31 August 2004 establishing the Charter of Rights of Persons with Disabilities, State Acts No. 44 of July 2, 1985, as amended, Law 250 Law on the Post-secondary Passport of Reasonable Accommodation of September 9, 2012, Law 51, as amended, Certifications; No. 143 2002-2003, No. 133 2015-2016, Num. 111 2014-2015, of the Governing Board of the UPR.

#### TECHNOLOGICAL ASSISTANCE CENTER (TAC)

The Technological Assistance Center (TAC) has computer stations (with electronic controls to adjust the height), with PCs and six iMacs where the student has the opportunity to change and adjust the following functions: "Voice Over", "Zoom", "Voice", Subtitles, Audio, Dictation, Keyboard, "Mouse" and "Tracpad". It also has equipment to be used by students in the classroom such as: recorders, iPads, talking calculators, reading guides, among others. Also, in the TAC there is a meeting room (e.g. tutorials, study groups and independent study) and a "Smart Board" for training, workshops, among others.

Below is other equipment available for student use:

Equipment	Area	
Adjustable workstation (10)	Computer	
Scanner hp	Computer	
Braille printer	Vision	
Speaker system	Computer	
Projector xga-2000 (eiki)	Computer	

Equipment	Area	
Smartboard 680	Computer	
Portable video magnifier (Opal) (1)	Vision	
Dialoque III TTY	Auditory	
Adjustable table (gray)	Computer	
Imac 27" (Apple) (4)	Computer – Vision – Auditory	
Projector dlpm209 x (Dell) (2)	Computer	
Pc optiplez 320 (dell) (8) Headsets with microphone	Computer	
Apple TV (1)	Computer	
Logitech trackball (2)	Physical	
Reading Guides (package)	Vision	
Talking calculator (2)	Vision – Auditory	
The Rave Reading and Vision Equipment (1)	Vision	
Sony Digital Recorder (4)	All conditions	

#### **CONTACT INFORMATION**

Maraliz Ramos Pagán
osei.ponce@upr.edu
(787) 844-8181 Ext. 3060
First floor of the Student Deanship, Office 101,
University of Puerto Rico at Ponce

#### **EXTRACURRICULAR ACTIVITIES OFFICE**

The Office of Extracurricular Activities is the main liaison of student organizations. These develop countless events during the year, for the benefit of the student and external community, in addition, to coordinate colorful and structured acts of initiation. Student organizations submit for approval the different documents for their various activities. They are provided with consultations for various logistical and procedural aspects of their work schedules. These are governed by the Internal Regulations of Student Organizations and schedule monthly meetings to discuss their affairs. Annually, the Office of Extracurricular Activities issues a call for the accreditation processes of Student Organizations, which reviews, prepares the files and sends them to the Accreditation Committee.

Students who possess some artistic talent are encouraged to develop it by participating in activities that encourage and promote a better use of free time. Annually, the Festival of the Voice is celebrated, and countless events are held by the Student Organizations that are duly accredited.

#### **Authorized Lodging Information**

It consists of distributing the list of lodgings registered in the Permit Office of the Autonomous Municipality of Ponce. The rules and requirements governing these regulations include the requirements of that office, the Department of Health and Fire. Prices fluctuate according to the physical facilities, available space and the services they provide. The Permit Office of the Autonomous Municipality of Ponce regulated the student lodging businesses through a Lodging Operating License.

#### **ATHLETIC ACTIVITIES**

The Athletic Program encourages student-athletes to participate in sports activities that have a formative effect on their lives and complement the academic phase. We reaffirm that the development of athletic abilities does not clash with academic, on the contrary, sport is an excellent source of motivation for the integral development of the individual. In addition, we recognize that sports practice, which includes competitive athletic participation, translates into a formative experience that impacts the individual throughout his or her life.

UPR-Ponce student-athletes have the opportunity to face competitors from other campuses and private universities in the tournaments and championships of the Interuniversity Athletic League, LAI (in Spanish). We promote the representation of the colors **Red** and **Black** with gallantry, highlighting the fidelity to the Alma Mater. Our campus has different sports facilities such as the Víctor Manuel Madera Building with volleyball, basketball courts, a weight gym, and two tennis courts outside.

We provide services to the entire university community that wishes to support sport and enjoy sports activities that promote healthy lifestyles. In addition, with the intention of collaborating with the university academic management, we coordinate with the Athletic Therapeutics Program serving our sports scenarios for the clinical practice of its students.

The "Among Athletes" Program is one where academically outstanding student-athletes tutor their teammates by encouraging compliance with their primary goal, achieving an academic degree. In the same way, we have excellent collaboration from the Department of Counseling and Psychological Services.

Currently the colors Red and Black of the UPR-Ponce are represented in the different tournaments of the LAI in both women and men sports. In the Interuniversity Athletic League our participation in the parade is magnified with the participation of the institutional band and Rogelio, our mascot.

We encourage all students at our institution who possess athletic talent to join our team. In addition to obtaining benefits corresponding to their talent, they will be able to enjoy unique experiences within university sports.

#### **Red** and Black Always!

#### ROGELIO'S

The main objective of Rogelio's in our institution is to create a healthy environment where students can socialize and enjoy in their free time naturally. In addition, it seeks to support the balance of the academic and personal life of our students through the celebration of recreational activities.

In Rogelio's the student will be able to make use of the different services offered there:

- 1. Wireless Internet service for laptops
- 2. Domino tables
- 3. Tables to play table tennis.
- 4. Presentation of movies and music videos
- 5. "Coffee shop"

Here you not only spend your free time in a quiet and enjoyable way, but you can meet in groups for the discussion of some work and if you like to study with music, you arrived at the right place!

#### **OFFICE OF VETERANS AFFAIRS**

The Registry Office has an Academic Records Evaluation Officer with the duties of a Veteran Certifying Officer. The Certifying Officer has the authorization of the Approval Agency of the Veterans Administration (VA) for processing the corresponding forms and certifications of people eligible to receive benefits to pay for their tuition. Eligible students will need to present themselves in person and receive orientation related to the study programs and benefits offered by the office. The different benefits of GI Bill® are as follows:

#### Chapter 1606 – Montgomery GI Bill® Selected Reserve

Benefit granted to reservist soldiers (Army National Guard or Army Reserve).

#### Chapter 30 – Montgomery GI Bill® Active Duty

Benefit awarded to veterans who were on Active Duty in the U.S. armed forces.

#### Chapter 33 – Post 9/11 GI Bill®

Benefit awarded to veterans (Army Reserve, Army National Guard or Active Duty) who served in the armed forces of the United States. Based on the active time the veteran served, the Veterans Administration determines the percentage of eligibility that corresponds to them. This benefit is transferable to dependents.

#### **Chapter 35 – Dependent's Educational Assistance (DEA)**

Benefit granted to dependents of veterans whose disability is 100% given by the Veterans Administration.

The Veterans Administration, governed by Title 38 CFR (Code of Federal Regulations) does not pay for repetitions of approved courses with grades A, B and C. The Veterans Administration will only pay for the repetition of approved courses with the grade D, failed courses (F) and / or courses that the student withdrew (W), as long as they are concentrations. Grade D has a maximum repetition of three times.

To determine eligibility for these programs, the student must apply for benefits through their unit if they are Chapters 1606 and 1607.

To request and obtain more detailed information about the GI Bill® Chapters, please go to the following page: www.gibill.va.gov or if you wish to contact the Veterans Administration directly you can call the following number: 1-888-442-4551.

<sup>&</sup>quot;The school is approved by the Puerto Rico State Approving Agency to provide Academic training to the students under the various GI Bill® programs".

<sup>&</sup>quot;GI Bill® is a registered Businessmark of the U.S. Department of Veterans Affairs (VA)".

The Bill of Rights of the Puerto Rican Veteran XXI Century Law No. 203 of December 14, 2007

Categories	<b>Tuition Costs</b>	Fees	<b>Books and Materials</b>
Veterans who exhausted their GI Bill®	100%		
benefits.			
Children of living Veterans.	50%	50%	50%
Spouses of living Veterans.	50%	50%	50%
Children of Veterans who died in	100%	100%	100%
action or whose death is related to			
active duty.			
Spouses of Veterans who died in action	100%	100%	100%
or whose death is related to active			
duty.			

## The Bill of Rights of the Puerto Rican Veteran XXI Century Law No. 203 of December 14, 2007, stipulates the following:

#### For dependents:

Law 203

- 1. "Spouses and children of veterans have a 50% discount on tuition, fees, books and other expenses up to postgraduate and/or professional level."
- 2. "Children and/or surviving spouses of veterans killed in active service and who are related to service have total exemption in the UPR up to professional degree."

#### For military or veterans:

1. "Free tuition at the UPR, after you run out of GI Bill® benefits, if you have to finish bachelor's degree or professional post-graduate degree."

To apply for Law 203 benefits, the student must go through the Campus Veterans Services Office and bring a copy of the veteran parent's or spouse's 214, copies of the veteran's and student's birth certificate. If you are a spouse, you must also bring a copy of the Marriage Certificate.

Those students who receive the GI Bill® benefit at another institution and are transfers or special permission and wish to continue receiving the GI Bill® benefit at the University of Puerto Rico at Ponce (except Chapter 35), must fill out the form: VA Form 22-1995 "Request for Change of Program or Place of Training".

If the GI Bill® benefit, they receive is Chapter 35, they must fill out the form: VA Form 22-5495 "Dependents Request for Change of Program or Place of Training"

These forms can be accessed and filled out through the GI Bill® page: <a href="http://www.gibill.va.gov/resources/student\_handouts/index.html">http://www.gibill.va.gov/resources/student\_handouts/index.html</a>

A tuition fee that will not exceed the state fee for tuition purposes and fees will be charged to the following individuals:

- A Veteran using educational assistance under either chapter 30 (Montgomery G.I. Bill®—Active Duty Program) or chapter 33 (Post-911 GI Bill®), of title 38, United States Code, who lives in Puerto Rico while attending a school located in Puerto Rico (regardless of his/her formal State of residence) and enrolls in the school within three years of discharge or release from a period of active duty service of 90 days or more. Effective August 1, 2021, Section 1005 of P.L.116-315 (Isakson and Roe Veterans Health Care and Benefits Improvement Act of 2020) eliminates the three-year requirement.
- Anyone using transferred Post-9/11 GI Bill® benefits (38 U.S.C. § 3319) who lives in Puerto Rico while attending a school located in Puerto Rico (regardless of his/her formal State of residence) and enrolls in the school within three years of the transferor's discharge or release from a period of active duty service of 90 days or more. Effective August 1, 2021, Section 1005 of P.L.116-315 (Isakson and Roe Veterans Health Care and Benefits Improvement Act of 2020) eliminates the three-year requirement.
- Anyone described above while he or she remains continuously enrolled (other than during regularly scheduled breaks between courses, semesters, or terms) at the same school. The person so described must have enrolled in the school prior to the expiration of the three-year period following discharge or release as described above and must be using educational benefits under either chapter 30 or chapter 33, of title 38, United States Code. Effective August 1, 2021, Section 1005 of P.L.116-315 (Isakson and Roe Veterans Health Care and Benefits Improvement Act of 2020) eliminates the three-year requirement.
- Anyone using benefits under Marine Gunnery Sergeant John David Fry Scholarship (38 U.S.C § 33111 (b) (9)) who lives in Puerto Rico while attending a school located in Puerto Rico (regardless of his/her formal State of residence).
- Anyone using transferred Post-9/11 G.I Bill® benefits (38 U.S.C. § 3319) who lives in Puerto Rico while attending a school located in Puerto Rico (regardless of his/her formal state of residence) and the transferor is a member of the uniformed service who is serving on active duty.
- The policy shall be read to be amended as necessary to be compliant with the requirements of 38 U.S.C.3679 as amended.

# SEC. 103. DISAPPROVAL FOR PURPOSES OF EDUCATIONAL ASSISTANCE PROGRAMS OF DEPARTMENT OF VETERANS AFFAIRS OF CERTAIN COURSES OF EDUCATION THAT DO NOT PERMIT INDIVIDUALS TO ATTEND OR PARTICIPATE IN COURSES PENDING PAYMENT.

- (a) IN GENERAL.—Section 3679 of title 38, United States Code, is amended by adding at the end the following new subsection: "(e)(1) Notwithstanding any other provision of this chapter, beginning on August 1, 2019, a State approving agency, or the Secretary when acting in the role of the State approving agency, shall disapprove a course of education provided by an educational institution that has in effect a policy that is inconsistent with any of the following:
  - "(A) A policy that permits any covered individual to attend or participate in the course of education during the period beginning on the date on which the individual provides to in section 3679(e) of such title, as added by subsection (a), shall be construed to prohibit an educational institution from requiring additional payment or imposing a fee for the amount that is the difference between the amount of the financial obligation and the amount of the disbursement the educational institution a certificate of eligibility for entitlement to educational assistance under chapter 31 or 33 of this title and ending on the earlier of the following dates:
    - "(i) The date on which the Secretary provides payment for such course of education to such institution.
    - "(ii) The date that is 90 days after the date on which the educational institution certifies tuition and fees following receipt from the student such certificate of eligibility.
  - "(B) A policy that ensures that the educational institution will not impose any penalty, including the assessment of late fees, the denial of access to classes, libraries, or other institutional facilities, or the requirement that a covered individual borrow additional funds, on any covered individual because of the individual's inability to meet his or her financial obligations to the institution due to the delayed disbursement of a payment to be provided by the Secretary under chapter 31 or 33 of this title.
  - "(2) For purposes of this subsection, a covered individual is any individual who is entitled to educational assistance under chapter 31 or 33 of this title.
  - "(3) The Secretary may waive such requirements of paragraph (1) as the Secretary considers appropriate.
  - "(4) It shall not be inconsistent with a policy described in paragraph (1) for an educational institution to require a covered individual to take the following additional actions:
  - "(A) Submit a certificate of eligibility for entitlement to educational assistance not later than the first day of a course of education for which the individual has indicated the individual wishes to use the individual's entitlement to educational assistance.
  - "(B) Submit a written request to use such entitlement.
  - "(C) Provide additional information necessary to the proper certification of enrollment by the educational institution.".

#### (b) PROMPT PAYMENTS. —

- (1) IN GENERAL.—The Secretary of Veterans Affairs shall take such actions as may be necessary to ensure that the Secretary makes a payment to an educational institution on behalf of an individual, who is entitled to educational assistance under chapter 31 or 33 of title 38, United States Code, and who is using such assistance to pursue a program of education at the educational institution, not later than 60 days after the date on which the educational institution certifies to the Secretary the applicable tuition and fees for the individual.
- (2) SEMIANNUAL REPORTS.—Not later than May 1 and October 1 of each year, the Secretary shall submit to the Committee on Veterans' Affairs of the Senate and the Committee on Veterans' Affairs of the House of Representatives a semiannual report summarizing any cases in which the Secretary failed to make a payment described in paragraph (1) within the period set forth in such paragraph and an explanation for each delayed disbursement of payment.
- (c) RULE OF CONSTRUCTION.—In a case in which an individual is unable to meet a financial obligation to an educational institution due to the delayed disbursement of a payment to be provided by the Secretary under chapter 31 or 33 of such title and the amount of such disbursement is less than anticipated, nothing in section 3679(e) of such title, as added by subsection (a), shall be construed to prohibit an educational institution from requiring additional payment or imposing a fee for the amount that is the difference between the amount of the financial obligation and the amount of the disbursement.

#### **QUALITY OF LIFE OFFICE**

The University of Puerto Rico, aware of the serious problems that affect our society, established the Office of Quality of Life in each of its institutions to promote healthy lifestyles among the university community. Its primary commitment lies in the development of an institutional climate that promotes a better quality of life among students through various educational, recreational, orientation, and prevention activities, so that educational objectives can be met. Likewise, this management is based on compliance with federal regulations such as the Student Right to Know and Campus Crime and Security Survey (Jeanne Clery Act).

As peer education is an effective tool to emphasize and strengthen prevention management, the Office has a group of student volunteers who are interested in making a difference between the people around them and serve as support entities for their peers. The components that direct the work plan of the office are the following:

- 1. **Campus Safety** one of the main objectives of the University of Puerto Rico is to monitor the safety and well-being of the university community. The Office of Quality-of-Life guides and shares prevention strategies related to campus safety.
- 2. **Sexual Harassment** the public policy of the University of Puerto Rico regarding sexual harassment was established on May 27, 1988, prohibiting sexual harassment. The term harassment refers to any unwanted sexual approach, sexual requirements, and any other verbal or physical conduct of a sexual nature.

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- 3. **Prevention of Drug and Alcohol Use and Abuse** the public policy of the University of Puerto Rico regarding the use and abuse of drugs and alcohol aims to provide an environment free of illicit drugs and alcohol abuse, recognizing the significant threat to the health and physical, psychological, and social well-being of the university community.
- 4. **Full Wellness** we emphasize physical, emotional, and social health with the purpose of achieving a healthy integral life.

To achieve its objective, a work plan is developed that carries the message of prevention according to generational requirements and that in turn are aimed at compliance with institutional and federal policies.

The recruitment of volunteers is continuous, you just need willingness and desire to help carry the message of prevention.

The Office of Quality of Life extends an invitation to be part of the group that carries the message of prevention to their peers and who enjoy life naturally, without alcohol and without other drugs. This Office is located on the First Floor of the Student Deanship.

#### STUDENT COUNCIL

The General Student Council is a body that represents the student sector at the University of Puerto Rico at Ponce. This facilitates the right to participate in university government, thus channeling the contribution of ideas and initiatives for the improvement of the university. These constitute the official forums of the student body for the analysis, discussion and study of student needs and aspirations and the effective participation of students in all aspects of university work, which will be guaranteed through the full, direct, free and democratic expression of these.

The General Student Council is elected annually in accordance with the provisions of Chapter V of the General Student Regulations (Certification 13-2009-2010 of the Board of Trustees). It will be constituted by a President, by the student representatives before the Administrative Board and University Board, an elected Student Senator, as well as the departmental representatives, as provided for in the student regulations of the institution. Its members are elected by the students themselves, according to the established procedures.

The Council organizes activities that promote a healthy environment of student coexistence that in turn complements the academic work and serves as a link between students and the administration. Its essential mission is to fight for the development and validity of acquired student rights, guaranteeing, and promoting at all times an environment conducive to the academic achievement and development of their leadership.

Representative Student Engagement Structures

Departmental Representatives
Representatives to the Academic Senate
Representatives to the Administrative Board
Representatives to the University Board
Representatives to the Disciplinary Board

#### FINE ARTS

Talented students in the arts can be members of groups such as our Masquerade Productions Theatre Company, Concert Choir and Band (including Flag Bearers) and "Dance Team". The student interested in participating in a group must attend an audition in which they are evaluated. These students, in addition to developing their talent, must maintain an average of no less than 2.50. Anyone who is selected will be required to meet to rehearse three or four times a week and some weekends or holidays. These groups participate in various activities representing and enhancing our Red and Black colors inside and outside the University.

#### **ALUMNI OFFICE**

The alumni office fosters links between students and the unit from which they graduate, through academic, cultural, and recreational initiatives. Responding to this purpose, it is committed to maintaining the link with all its graduates. Studying at the University of Puerto Rico in Ponce represents a lifelong relationship with the institution; beyond completing an academic degree, alumni are an active part of the academic community and receive benefits while contributing to the development of their Alma Mater, to support the generations to come.

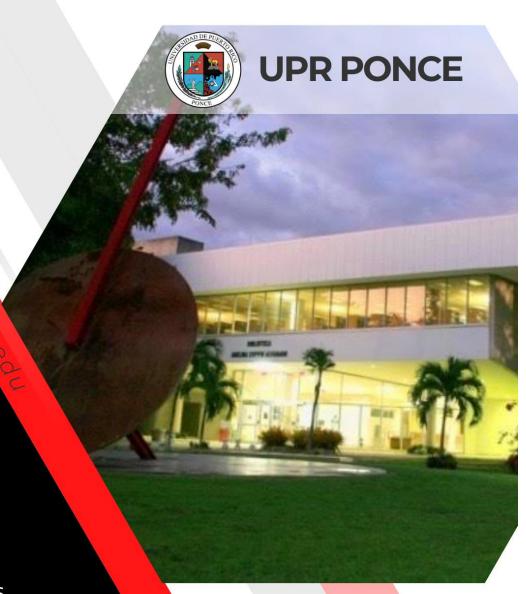
This office seeks to develop innovative initiatives to support the University of Puerto Rico in Ponce by integrating alumni and making collaborative efforts with the Academic Departments and the community to achieve resources aimed at institutional development. This will greatly help us to increase donations to the *Dotal* Fund, which seeks to grant scholarships to students.

In addition, we provide excellent services that diversify and strengthen the links of direct, effective, and continuous communication with the alumni of the University of Puerto Rico in Ponce, so that we can integrate them into each of them, strengthening their commitment and sense of pride with the institution.

#### CAFETERIA

The Cafeteria of the University of Puerto Rico in Ponce is operated by a private corporation. It maintains a contract for four (4) years with the institution. It offers lunch specials and a varied menu. It works from Monday to Friday during periods of academic or administrative activity.

# Learning Resources



CATALOG 2022-2026

#### PART VI LEARNING RESOURCES

#### ADELINA COPPIN ALVARADO LIBRARY

The Library is the academic department whose mission is to provide information services of excellence to all members of the university community and reaffirm its role as an active partner in the teaching-learning process. It is here that the information resources whose purpose is to support, strengthen and expand the curricular and cultural offer of the University of Puerto Rico in Ponce are located. Its primary responsibility is to develop services, programs and collections that support the academic programs of the institution and tend to develop people trained for independent learning.

#### **Library Evaluation**

In 2008 the Association of College and Research Libraries evaluated our Library for the period between 2001 and 2006 in all its facets, an evaluation in which they praised our performances.

The main service areas are:

#### Center for Puerto Rican Studies Socorro Girón

This special collection contains bibliographic resources related to Puerto Rico. In addition, it has documents, photographs, newspapers, and volatile material in its various archives.

#### **Circulation and Interlibrary Loans**

In this area you get access to books that circulate outside the Library. They are lent for two weeks. In addition, interlibrary loans of bibliographic resources available in other libraries are processed.

#### **Information Skills Program (ISP)**

The Program aims to support the teaching-learning process, both teacher and student, by developing their academic information skills, including the management of the various sources of information that will allow independent learning.

#### **Non-Print Resources**

The collection consists of sound recordings (discs), compact discs, image recordings in videos and digital video discs (DVDs), transparencies, slides and others. In addition, it has the necessary equipment for its use and a Projection Room to attend groups.

#### Reference/Reserve

This section includes sources of summarized information, useful for quick reference or to obtain specific data. Among its resources are almanacs, dictionaries, encyclopedias, yearbooks, atlases, maps, bibliographies and other sources. The area has computers available for searches in the online catalog and databases. In this area the Reserve section is located, where professors leave copies of books for specific courses during a semester.

#### **Journal Room**

The Journal Room provides facilities for research. The collection consists of scientific journals that enrich the academic curriculum of the Institution. It also has a variety of general and recreational magazines. Subscriptions correspond to journals published in the United States and Latin American countries.

In the Room, the information needs of users are identified and met. Individualized help is provided, both in quick consultation and in workshops, on the use and management of the collections of printed and electronic journals of the databases, style manuals, among others.

#### OTHER SERVICES

#### **Public Online Catalog**

It offers information on all books and non-printed resources available in the UPR Ponce Library, as in those of the UPR System. You can access it from any computer with Internet access, both on the premises and outside it.

#### **Group Study Rooms**

The Library has rooms equipped with computers, electronic whiteboard, tables and chairs, to be used by a minimum of three to a maximum of eight people per room.

#### **Special Activities**

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

#### **Photocopying machines**

Photocopiers/printers are available for use by the entire university community on both floors of the Library.

#### LIBRARY POLICIES

#### 1. RESOURCE, SERVICES, FACILITIES AND EQUIPMENT LOAN POLICY

#### Introduction

This Policy is promulgated to group in a document the rules that regulate the loan of resources, services, facilities and equipment of the Adelina Coppin-Alvarado Library in its different areas, as well as the service of interlibrary loans. The standards of each unit were structured considering one or more of the following:

Type of service
Type of material
Number of copies available
User Classification
Number of titles and volumes in the collection

The user will comply with the procedures established in each room when requesting service. In all of them it is a requirement that an official identification card be delivered. When a user needs bibliographic resources and equipment outside the service hours of a room, he can coordinate with the person in charge of it the use of these in the Reservation section. From this section, library services for people with disabilities will also be coordinated.

Employees and the Faculty of the UPRP must present their employee identification card and will be responsible for the material requested.

#### **Special Permissions**

This service is offered primarily to residents of Ponce and the towns of the region served by the Campus and those who are not studying in other institutions of higher education.

The permission granted to the applicant is personal and non-transferable and entitles him to the loan of Circulation books. It is in this area that special permissions are processed.

Up to three (3) books will be lent at a time for a period of fifteen (15) days and up to two (2) may be of the same classification.

#### A. Resource Lending Policy of the Center for Puerto Rican Studies Socorro Girón

The resources of the Center are for exclusive use in the Room.

The material is lent for two (2) hours. A fine of 50¢ per resource, per hour or fraction of an hour, will be imposed for late delivery.

The loan can be renewed for an equal period, if there is no other user requesting the resource.

The loan can be renewed for an equal period of time, if there is no other user requesting the resource.

A user can borrow (3) three resources at the same time.

The material is not reserved for any user.

Taking material without authorization carries a fine of \$5.00 for the first day and an additional 50¢ fine for hours of service that the material was not returned.

The computers in the room are exclusively for the search of resources of the Center and the internal ones for the loan and return of the same.

#### B. Resource Loan Policy of the Circulation Area Teaching staff of the UPR System and administrative staff

Up to twelve (12) books can be lent for a period of thirty (30) days during the regular semester to teaching staff and for fifteen (15) days to administrative staff.

Of the above, up to three (3) may be of the same classification.

#### **Students**

Up to twelve (12) books can be lent at a time for a period of fifteen (15) days. Of the above, up to three (3) may be of the same classification.

#### Other rules

Loan renewal is allowed for a similar period if the book is not reserved by another user. The Teaching Employees of the University have a period of one-month, Non-Teaching Employees and Students have 15 days to make use of the resource. The renewal of the resource can be done in person or online. Renewal of the resource will be allowed up to three (3) additional times.

The student enrolled during the summer session is lent up to three (3) books per user, for a term of one week.

A fine of 50¢ per book will be imposed, per day that the library offers service to any user who does not return the material on time.

Users will not be able to use the resource loan service until they settle the debt.

Any user can reserve a borrowed book from another user.

#### C. Journal Room Resource Lending Policy

The resources in the section are for use only at the Library.

It is necessary to complete the service request form for the printed material to be used and provide the student ID card.

Up to five (5) resources are provided per user, for two (2) hours.

The user can renew the loan for one (1) additional hour, if it is not requested by another user.

The material is not reserved.

Any user who takes any resource outside the Library without authorization will be punished with a fine of \$5.00 for the first day and an additional \$1.00 for each additional day.

#### Other rules

Resources will be provided for two (2) hours when requested by the student or teacher to present in the classroom. Students will bring a pre-certification or email from the course teacher to use the resource in the classroom.

The computers will be used exclusively to conduct academic research in databases and other academic resources available through the Internet.

#### D. Non-Print Resources Area Resource Lending Policy

#### **Professors**

The resources of this Room are provided to the teaching staff for two (2) weeks, with the possibility of renewal for two (2) additional weeks if there is no request from another user.

#### **Administrative staff**

The resources will be lent for (1) week, with the possibility of renewal for an additional one (1) week if there is no request from another user for the resource.

#### **Students of this campus**

The resources of this Room do not circulate outside it, except when students request them to present it in the classroom, prior certification of the course professor for this purpose. The materials will circulate for two (2) hours in these cases.

#### Users with special permissions

The materials in this Room do not circulate outside of it for persons with special permission or other users not covered by the classifications mentioned herein.

#### **General Rules**

Every user will assume absolute responsibility for the material taken as a loan.

The user who without proper authorization takes the material outside the Room will pay a fine of \$ 5.00 for the first day and \$ 1.00 for each additional day.

#### **Equipment Loan**

The audiovisual equipment is owned by the University of Puerto Rico at Ponce.

The loan of audiovisual equipment is for exclusive use on campus and is limited to users from the university community.

The applicant will reserve the equipment five (5) days in advance, complete the form for the loan of the equipment and present their identification card when they come to pick it up.

They will coordinate the receipt and return of the equipment with the person in charge of the Multimedia Room before taking it and will be responsible for it in their personal nature, while they have it borrowed.

Delays in the return of the equipment carry a fine of \$5.00 on the first day and \$2.00 per additional day.

#### E. Reference Room Resource Lending Policy – Reserve

#### Reference

The resources in the section are for use only in the library.

Up to three (3) resources are lent per user.

The material is lent for two (2) hours.

The user can renew the loan for an equal period, if there is no other user waiting for the resource.

Any user who takes any resource outside the library without authorization will be sanctioned with a fine of \$5.00 plus an additional 50¢ for each hour or fraction of an hour of service.

Withholding a resource from the section after the period for which it was taken as a loan carries a penalty of 50¢ per hour or fraction of an hour.

#### Other rules

The resources will be lent for two (2) hours when requested by the student or professor to present it in the classroom.

In the case of students, they will bring a pre-certification or an email from the course professor to use the resource in the classroom.

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#### Reserve

The resources of the Reserve Section, owned by the library and owned by the professor are for the exclusive use of the Library. Due to the nature of this material, its use is restricted to one (1) hour.

Circulation materials located in Reserve and materials owned by professors will be lent for use outside the library only with the authorization of the professor in writing.

Those materials owned by the professor that are authorized in writing to circulate outside the library, will be borrowed half an hour before closing it. Materials will be returned within the first hour of the library's next day of service.

The loan of material for use in the Library is renewable for an additional hour, provided that it has not been requested by another user.

The user may borrow up to three (3) materials at a time.

The material is not reserved for any user.

A fine of 50¢ will be imposed per material, per hour or fraction of an hour for late delivery.

The user who without proper authorization takes the material outside the library, will pay a fine of \$ 5.00 per material per working day, in addition to 50¢ per material per hour or fraction of an hour of service.

#### **Honor Program**

Honors Program students have the privilege of taking out Reserve material for photocopying at the Program's Office. This privilege does not include the lending of books owned by professors. The process of lending books will be the same as the process for regular students, that is, requesting authorization from the professor in writing.

All of the other rules set forth above also apply to Honors Program students.

#### **UPR** employees

UPR employees will present their identification card and will be responsible for the material requested by them and their relatives, this includes the faculty.

All other rules set out above also apply to UPR employees and professors.

#### F. Information Skills Program Loan Policy

The goal of the Library Information Skills Program is to collaborate in the teaching-learning process of our students by training them to master the information skills that will enable them to be lifelong learners.

Some of our services include: offering group and individual guidance on information seeking strategies; use of the online public catalog; use of databases; identification and use of open access resources; use of the *Moodle* platform of the Library; documentation of works according to different style manuals; steps to follow in a research work; how to prepare an annotated bibliography; how to search for information on specific topics; evaluation of resources on the Internet; literature review in different fields and other related topics.

#### **Group Library Instruction**

The professor or interested party will complete and deliver the Group Library Instruction Application at least two (2) weeks in advance. It is available in the Services Section of the website of the Adelina Coppin-Alvarado Library, <a href="https://www.upr.edu/biblioteca-uprp/">https://www.upr.edu/biblioteca-uprp/</a>.

The Program Coordinator will verify the availability of offering the instruction on the requested date. Then, you will contact the applicant to agree on an end date and the details of interest that will be discussed in the instruction.

The Coordinator of the PDI will assign the resource for each instruction.

Students will sign an activity attendance record sheet. If the service is offered at the Office individually, the corresponding registration will be signed.

#### **Use of the Instruction Room**

The use of this room is exclusively for the offering of instructions programmed by the Information Skills Program. On special occasions, at the request of a professor or office of the University, the Director, in consultation with the PDI Coordinator, will authorize its use as long as there are no scheduled instructions, which, if they arise after the authorization, will leave it without effect.

#### **G. Facility Loan Policy**

The use of the facilities will be exclusively for activities of academic interest. The consumption of food or beverages will not be allowed. The request must be submitted at least two (2) days in advance. If the activity is canceled, it must be notified at least one (1) day in advance. All rooms have a computer, electronic whiteboard or 52" TV screen.

#### **Conference Room**

The room can accommodate sixty-five (65) people. For the exclusive use of conferences, workshops, or large group meetings. Activities can be open to the university community.

#### **Multipurpose Room**

The room can accommodate twenty-five (25) people. It has tables for workshops, meetings, or small group conferences.

#### **Projection Room**

The room can accommodate forty (40) people. For the exclusive use of the audiovisual resources owned by the NON-PRINTED RESOURCE ROOM.

#### **Photography Services**

Photography services will be limited to official activities or for educational purposes. They are for the use of the university community and must meet the following criteria:

Historical purpose Future use of photographs Relevance of the activity

The applicant will fill out the Required Service Form five (5) days in advance and present their ID card.

At the end of the process of taking the photos of the new students, two days will be available during the week for the photographs of the identification cards of the university community. These days will be distributed in such a way that makes it easier for students to acquire a new card if theirs is lost.

#### **H.**General Rules for Lost Books

In case of loss, damage, or mutilation of a resource, while it is registered in the name of the user, the user will be liable for the total market price, plus the additional costs of processing and fine, if applicable. If the resource is not available on the market, the user will try to get it and will pay the cost plus the cost of postage, processing and fine, if applicable.

The current cost of processing a resource replaced by loss or mutilation is \$18.00.

In the event that a user withholds any resource, and after having been notified has not responded to our request, they will go to a list of debtors so that the relevant authorities act on this matter.

#### 1. INTERLIBRARY LOAN POLICY

#### Introduction

The Adelina Coppin Alvarado Library of the University of Puerto Rico in Ponce, in compliance with the philosophical postulates established in its mission, indicates that its main mission is to provide excellent information services to all members of the university community and reaffirm its role as an active partner in the teaching-learning process. Reaffirming this principle, it offers the service of interlibrary loans.

The purpose of interlibrary loans, in addition to providing a valuable service to users, is also to be more cost effective, by avoiding the acquisition of resources that are available in other units of the University of Puerto Rico Library System. When an interlibrary loan transaction is made, the process is managed from one library to another library. In the Journal Room, loans related to journal articles are processed. Book loans are managed in the Circulation Area.

The Interlibrary Loan Service is offered to students, faculty, and non-teaching employees.

Within the dynamics of interlibrary loans, priority is given to the libraries of the University of Puerto Rico System. Private libraries can request the services.

The Interlibrary Loan Service is free of charge to the user in most cases. In some situations, if the library which provides the loan, invoices any cost, it will be the responsibility of the user. In these cases, the user is notified in advance, and if he agrees with the cost, then the procedure continues.

#### Interlibrary loans of books requested from the library.

When a library needs a resource from us, it must fill out the A Request, Interlibrary Loan Form, which was coined by the ALA (American Library Association). This can be sent via email. The availability of the resource is verified, and a response is given indicating its availability.

As a control measure, all interlibrary loans are processed through the Horizon System, which establishes the date of return of the book. The term of time a book is lent to the petitioning library is thirty (30) calendar days. This is the same time that a resource is loaned to faculty and Honors Program students. The book can be renewed for more terms, as long as another user does not require it. The resources of the Reference Collections, Center for Puerto Rican Studies and Non-Print Ed Resources are not part of the Interlibrary Loan service.

#### Interlibrary loans of books requested by the library.

The user must complete the form, Application for Interlibrary Loans of Books, in all its parts. This form is provided to the user or can be obtained on the library's website. Then we contact via phone or email with the Coordinator of Interlibrary Loans of the library where the request is going to be made to corroborate that the resource is available. If yes, the form is completed, which is always sent by email.

The applicant is informed of the approximate time in which it is estimated that the appeal can be received. The applicant shall be responsible for delivering the resource(s) on or before the due

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date. If there is any surcharge, the student is obliged to pay the debt in full. Failure to do so will render the library The applicant is informed of the approximate time in which it is estimated that the resource can be received. The applicant shall be responsible for delivering the resource(s) on or before the due date. If there is any surcharge, the student is obliged to pay the debt in full. Failure to do so will render the library a debtor.

#### **Interlibrary Loans of Journal Articles Requested by the Library**

The Interlibrary Loan service is requested in the Journal Room when the article is not available in the printed and electronic collections of the Adelina Coppin Alvarado Library. The applicant is required to complete the *Interlibrary Loan Application for Journal Article*, available on the library portal.

The person in charge checks the lists of publications from other libraries to identify the library in which the journal is available. Then complete and email the *A Request form, Interlibrary Loan Form* or complete the electronic form of the library from which the item is requested.

The applicant will receive an email about the status of the corresponding procedure, as well as the article when provided by the collaborating library.

#### Interlibrary Loans from the Journal Room Requested from the Library

The user is required to complete the *Journal Article Interlibrary Loan Application* or email the *A Request, Interlibrary Loan Form*.

When locating the information, if the article is available in printed form, it is digitized. It is then emailed to the library staff who requested it.

#### **TUTORING PROGRAM**

The Tutoring Program aims to help UPR Ponce students strengthen their knowledge of the material presented in the courses. The program offers them support through face-to-face and virtual tutorials in the most complex subjects; as well as in those with the highest rate of failures and withdrawals. The tutoring service also coordinates group reviews for the clarification of doubts. Student tutors provide between seven and ten hours of tutoring per week, in accordance with the Work-Study Program.

It consists of young, committed people who contribute their knowledge to assist their peers in the learning process. The program is aimed at improving student retention. The student tutor establishes a schedule that does not conflict with his/her academic schedule and that in turn can count on the supervision and service of the Program Coordinator.

Student tutors receive workshops on topics necessary for their personal improvement and to develop strategies that help them when offering tutoring. Tutors stay in communication with the professors offering the course to clarify doubts, coordinate revisions and inform them in which areas students are showing the most difficulty.

# I. INSTITUTIONAL POLICY ON THE ACCEPTABLE USE OF INFORMATION TECHNOLOGY RESOURCES AT THE UNIVERSITY OF PUERTO RICO

Approved by the Board of Trustees, Certification No. 35 (2007-2008)

#### 1. SCOPE

This Policy applies to all users of the Information Technology (IT) of the University of Puerto Rico ("the University"), including, but not limited to, students, faculty, researchers, and employees. Third parties using any part of the University's Information Technology, such as: contractors, third-party suppliers, consultants, or visitors, are also subject to this Policy, including to the extent that they connect equipment with registered property rights to the University's network or install their registered proprietary rights programs on the University's computers. Ignorance of the existence of this Policy or any part of it does not exempt users from compliance.

#### 2. LEGAL BASIS

This systemic policy and procedure are adopted in accordance with the applicable provisions of the University of Puerto Rico Act, Law No. 1 of January 20, 1966, as amended, and the General Regulations of the University of Puerto Rico.

#### 3. OBJECTIVES

The purpose of this policy is to define a normative structure that allows members of the university community to make the best possible use of technology resources in a safe environment that promotes the University's objectives of transmitting and increasing knowledge through education, research, and the extension of services. Specifically, this Policy attempts to achieve the following:

- A. Ensure the integrity of computers, computer-related equipment, networks, systems, programs, and data, regardless of whether or not they are located on the premises of the University.
- B. Ensure that the use of electronic communications complies with the laws, policies, rules and procedures of the University, the Commonwealth of Puerto Rico, the United States and international laws.
- C. Protect the University from harmful legal or security consequences.

#### 4. PRESUMPTION OF GENDER INCLUSION

All titles, positions and functions included in this Policy are applicable to both genders equally, as they may refer to or be occupied or performed by men or women, indistinctly. Institutional Policy on the Acceptable Use of Information Technology Resources.

#### II. POLICY STATEMENT

Computers, networks (including wireless networks), and electronic information systems are essential resources for achieving the University of Puerto Rico's mission of education, research, and service extension. The University grants members of the university community shared access to those resources as well as local, national, and international sources of information in support of achieving the University's mission. These resources are invaluable to the community and should be used and managed responsibly to ensure their integrity, safety, and availability for appropriate educational, investigative, service, and other activities of the institution. Users are required to use IT resources efficiently, effectively, and responsibly; in a way that does not affect the quality, timeliness, or delivery of a person's work to the University, nor is it an obstacle for the rest of the community to perform their work for the University.

At the University of Puerto Rico, freedom of expression and an open environment to learn and share information are given great value, encouraged, supported, and protected. Censorship is incompatible with the goals of a higher education institution. Research and education manifest themselves in various ways. Therefore, information that is accessible in available electronic sources may not be restricted by censorship, provided that such information is not limited by any law or regulation and is used for lawful purposes. The University will promote the proper use of technology, mainly through education, to encourage the responsible management of technology and the information accessed.

Access to the infrastructure of information resources, both on and off the University grounds, information sharing, and the security of intellectual production all require each user to personally assume responsibility for protecting the rights of the community. Users should be aware that acts performed using information technology will be subject to the same standards as any other action in the workplace. The University will diligently handle all violations of any law or policy of the University.

#### III. RIGHTS AND RESPONSIBILITIES OF THE USER

Members of the university community receive access to information technology resources to facilitate their academic, research, service and work activities related to the University. Occasional personal use of information technology is permitted, as long as such personal use does not interfere with job performance or violate any applicable policy, regulation, or law. An evaluation of an employee's job performance may include the employee's personal use of information technology resources; and a supervisor may require a change in such personal use as a condition of continuing in employment, if deemed necessary.

#### A. Use Means Acceptance of the Policy and Rules

By using these IT resources, users agree to follow this Policy, as well as all applicable University policies, rules, and procedures and applicable federal and local laws. Users are responsible for the following tasks:

1. Review, understand and comply with all policies, procedures and laws relating to the acceptable use and security of the University's information technology resources.

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- 2. Request clarifications from system administrators or data custodians on access and acceptable use issues that are not necessarily discussed in the University's policies, regulations, standards, and procedures; and
- 3. Report potential policy violations to the appropriate entities.

#### A. **Privacy and Security Awareness**

The University recognizes the user's right to privacy and security; and is responsible for taking reasonable steps to protect the security of information technology resources allocated to individual users. The user's personal information will be kept in a secure environment; and only authorized employees who need the information to perform their work will access it. If the need arises to intervene with the right to privacy of any person during any investigation into the inappropriate use of information or technology resources, the University must follow the valid legal procedures in doing so. Users should follow appropriate security procedures to help maintain the security of equipment, systems, applications, and accounts. These procedures are available in the Information Systems Office (ISO) of the University System or in the ISO of the units.

#### В. **Consequences of Violations**

Access privileges to the University's Information Technology resources will not be denied without cause. The University may temporarily deny access to IT resources if during an investigation it becomes necessary to protect the integrity, security, or continued operation of its computers, systems, applications, and networks, or to protect itself from liability. Alleged violations of the University's IT policies should be referred to the appropriate university officials for resolution or disciplinary action. The University may also refer alleged violations of law to appropriate law enforcement agencies. Depending on the nature and seriousness of the offense, violations of the policy could result in loss of access privileges, University disciplinary action, or criminal prosecution.

#### IV. RIGHTS AND RESPONSIBILITIES OF THE UNIVERSITY

The University owns the applications, systems, computers, and networks that make up its technical infrastructure. In the same way, the University owns all the data that resides in said technical infrastructure; and is responsible for taking the necessary steps to protect the integrity, security, and confidentiality of its systems, applications, data, and user accounts.

When the University becomes aware of a violation, whether through routine system administration activities, audits, or through a complaint, the University has a responsibility to investigate as necessary or indicated, and to take any action that is necessary to protect its resources or to provide information that is pertinent to any ongoing investigation. Offices, units, faculties and university facilities shall cooperate and collaborate with university and law enforcement officials investigating such violations.

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#### V. OFFICIAL RESPONSIBILITIES

#### A. Vice President of Research and Technology

The Vice President for Research and Technology (VPRT) reports directly to the President; and is an integral part of the senior management of the University of Puerto Rico.

VPRT will disseminate this Policy to the entire University of Puerto Rico. VPRT will also develop general systemic standards and procedures that are consistent with this Policy regarding the use of IT resources. In addition, VPRT will promote the implementation and execution of a continuous educational campaign on a systemic scale to guide the University in the proper use of Information Technology.

#### **B.** Office of Information Systems (OIS)

- 1. The Directors of the OSI are responsible for directing their individual offices to achieve the goals set. These promote collaboration and the transfer of knowledge and resources between the different OIS's in coordination with the Central Administration. The University's technology and the responsibilities of the OIS staff should be harmonized with the Institutional Strategic Plan and the specific needs of the office and campus.
- 2. All acquisitions of computers, equipment related to computers and networks, and programs for the University, as well as any proposal for the implementation of information systems or technology of the 2018-2020 Catalog, must be coordinated through the OIS of the System or the OIS of the corresponding unit to ensure compatibility with the existing infrastructure, compliance with this policy and with standards and procedures at a systemic scale. The OIS must issue its recommendations on changes, updates and implementation of technologies or proposals in a timely manner to avoid unnecessary delays. Participate in the planning, acquisition, development, and implementation stages of technological or institutional projects under one or more of the following conditions: (a) provided that such technology must integrate technologies managed by the OIS; (b) to be administered by the OIS after its implementation; or (c) as may be deemed convenient to the best interests of the University.
- 3. The OIS will implement local policies and procedures subordinate to this Policy and the Systemic Standards and Procedures issued for the implementation, administration, and use of Information Technology on the University grounds. These local policies and procedures may provide details, guidelines, or limitations.
- 4. OIS will provide support to IT resources within the office or unit to which it is attached. The OIS collects key performance indices to measure the level of service provided to users and compares these metrics with expectations and needs. As required, the OIS will define and execute the steps necessary to align actual service performance with expected service levels and available resources.
- 5. The OIS will take the necessary steps to promote and maintain an environment of learning and continuous improvement of its teamwork. The OIS will guide university users on the proper and effective use of IT.

- 6. The University empowers the OIS with the power to protect information technology resources and data. The staff of the OIS will treat the content of institutional data, individually assigned accounts and personal communications as private and will not examine or disseminate their content, unless: (1) it is required for the maintenance of the system, including security measures; (2) when there is a documented reason to believe that an individual is violating the law or University Policy; or (3) as permitted by applicable law or policy.
- 7. Data recorded, maintained, stored, and accessed through the University's information systems is a critical resource that must be protected. The OIS shall consult with university officials who possess the necessary knowledge to determine the criticality and sensitivity of the University's data and the applications that use it. OIS will ensure that appropriate security measures and standards are put in place and put in place. In case of doubt, OIS will treat the information as confidential until it is informed otherwise.

#### IX. EFFECTIVE DATE

This Policy will be effective thirty (30) days after filing with the Department of State.

On the effective date, Certifications No. 49 (1994-1995) and No. 72 (1999-2000), as well as any other contradictory certification, policy, rule, procedure or regulation, shall be null and void.

# SPECIAL PROJECTS OF TECHNOLOGICAL RESOURCES AND ACADEMIC PROGRESS

# Project Title V / Academic Support Center for Students and Faculty (ASCSF)

The Title V Project at the University of Puerto Rico at Ponce was funded by the U.S. Department of *Education's Developing Hispanic Serving Institutes (HSI)* program for the development of Hispanic institutions of higher education. This Project was founded since 1999 and has concentrated its actions on two goals: Increase student retention and increase their academic progress. He has carried out a variety of activities, among which are: the strengthening of the basic skills of Communication, Science, and Mathematics; the strengthening of Academic Programs, using educational technology; and the offer of academic support services to students, through Tutoring, Mentoring and Training Programs. Students and teachers are their center, to facilitate the teaching and learning processes.

The Project created the Multi-Teaching and Learning Center (known as MATC 1, 2, 3) where interactive courses are offered in: Spanish, English and Mathematics, which facilitate the process of learning communities, and constructive trends, supported by high-tech computerized equipment. The computer room for the Faculty and the Tutoring Center were also established in Room 104 and in the rooms of the library. Likewise, through the Project, over 50 rooms were established in the Institution for the offer of interactive classes; and the first Technological Assistance Center was created, in a public higher education institution, in the southern area of Puerto Rico.

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As of October 2011, it functions as the Academic Support Center for Students and Faculty (ASCSF), attached to the Dean of Academic Affairs. In this Center, technical support is provided to its users and the university community in general and training activities are offered to professors in the management of resources, applications and distance education platforms. Support is facilitated for the asynchronous *Institutional Moodle* platform, which has been called the learning management system of the University of Puerto Rico.

The ASCSF arises from a project to support university academic success and is its mission, to strengthen teaching and learning strategies and practices, in favor of academic progress, research and student retention.

# Virtual Education Development Center (CDEV) (Certification No. 46-2021-2022, AS)

The Virtual Education Development Center and its professional team collaborate with teachers in the design of courses that seek to create new forms of learning and innovative strategies. This service provides the opportunity to impact the students of our Institution from different academic areas. It has specialists in Instructional, Graphic and Audiovisual Design, directed by a specialist in Distance Education. At the same time, it offers the resources to develop short courses, certifications and other teaching materials that can be used in the online modality for any participant inside or outside of Puerto Rico. Among the services offered are:

- the design of learning resources,
- development of online courses, short courses and certifications in the Moodle Learning Management System,
- individual or group consultations with teachers to help in the design of online courses,
- Guidance to teachers about digital resources for the effective integration of technology in classes.
- collaboration in the development of learning materials for the classroom, including: audio, video, graphics, animations, among others, and
- facilities for making and editing recordings. (\*Independently (use of cubicles) or in the recording studio with the help of our Production Technician).

# Academic Programs



#### PART VII ACADEMIC PROGRAMS

The academic programs offered by the University of Puerto Rico at Ponce address the general education component in their curricula.

The Academic Senate of the University of Puerto Rico at Ponce approved the **Definition of the General Education Component** through the 2007-2008-23 Certification.

The General Education Component of the University of Puerto Rico in Ponce is a nucleus of courses and activities aimed at promoting a comprehensive and balanced education. It prepares the student for life, their profession and the world in which they live. The Component consists of oral and written communication skills in Spanish and English; mathematical, scientific and technological competences; logical thinking and critical thinking skills; mastery of basic information skills and a base of ethical, aesthetic and historical assessment that enables the student to be a better citizen.

The Academic Senate approved the Policy for the General Education Component of the University of Puerto Rico at Ponce, Certification 2015-2016-48.

The Competencies of the General Education Component are:

- 1. Proficiency in oral and written communication in Spanish and English
- 2. Mathematical competence
- 3. Scientific competence
- 4. Technological competence and basic information skills.
- 5. Critical thinking competence
- Competence in aesthetic valuation 6.
- 7. Competence in ethical assessment
- Competence in historical valuation 8.
- 9. Social and personal sensitivity competence

#### ARTICULATED TRANSFER AGREEMENTS

Articulated Transfer Agreements between the UPR-Ponce and other units of the University of Puerto Rico for baccalaureate academic programs.

The Articulated Transfer Agreements between the units of the University of Puerto Rico (UPR) for different academic baccalaureate programs are established reciprocally and in accordance with the provisions of Certification 115, Series 1996-97, of the Board of Trustees of the University of Puerto Rico. The University of Puerto Rico in Ponce is defined as the unit of origin and the other institution as the receiving unit.

Each agreement has as one of its objectives to facilitate the transfer of students between the two institutional units of the UPR system that subscribe to it. Through this agreement, the

participating students will be able to take in their unit of origin the required courses that will allow the eventual transfer to the receiving unit without losing credits or extending the time established to meet the requirements of the program.

The agreement contracted by 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 by exposing them to the cultural and educational heritage of the participating campuses enriching their academic preparation.

#### SOCIAL SCIENCE PROGRAMS AT THE RÍO PIEDRAS CAMPUS

#### **Articulated Transfer Agreements to the Río Piedras**

Bachelor of Arts with concentration in Anthropology, Political Science, Economics, Geography, General Social Sciences, Sociology

#### ARTICULATED TRANSFER STUDY PROGRAM

#### **FIRST YEAR**

First Semester			Credits
CISO	3121	Introduction to Social Sciences I	3
CIBI	3001	Fundamentals of Biology I	3
<b>ESPA</b>	3101	Basic Spanish I	3
<b>INGL</b>	3101	Basic English I	3
<b>INGL</b>	3113	Basic English Laboratory I	0
<b>MATE</b>	3001	Introductory Mathematics I	3
HUMA	3101	Introduction to Western Culture I	3
		Subtotal	18

<b>Second Semester</b>			Credits
CISO	3122	Introduction to Social Sciences II	3
CIBI	3002	Fundamentals of Biology II	3
<b>ESPA</b>	3102	Basic Spanish II	3
INGL	3102	Basic English II	3
INGL	3114	Basic English Laboratory II	0
HUMA	3102	Introduction to Western Culture II	3
		Free Elective ***	3
		Subtotal	18

#### **Second Year**

First	Semester		Credits
PSIC	3003	Introduction to General Psychology	4
CIPO	3011	Principles and Problems of Political	3
		Science	
<b>ESPA</b>	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
or INGL	3221	Introduction to Literature I	
HUMA	3201	Introduction to Western Culture III	3
CISO	3155	Fundamentals of Statistical Reasoning	3
<u>or</u>		Social Sciences Elective	
		Subtotal	19

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

**Total of Credits: 73** 

<sup>\*</sup>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 AT THE RÍO PIEDRAS CAMPUS

The Department of Humanities offers an articulated transfer agreement with the Río Piedras Campus to do a concentration in: Drama, Hispanic Studies, Philosophy, Art History, History of Europe, History of the Americas, English with concentration in Literature, Comparative Literature and Music. Students take core courses during the first two years and then move to that campus. In addition, the Department offers core courses in the humanities and history, as well as requirements of other programs. Its courses in philosophy, French, music, art, history (Puerto Rico and the United States) are options for our students' elective courses for all departments.

#### Vision

The Department of Humanities aims at the integral formation of the student, emphasizing the cultural aspect. It prepares you to live life in full awareness of your ethical responsibilities to yourself, to others, and to the environment. It encourages the development of a conscious being, in full development of its potentialities.

#### Mission

The Department of Humanities, both in its service function and in its transfer program, is responsible for advancing the integral formation of students by exposing them to the knowledge of the complex human multidimensional reality, inseparable from their environment, and examined from multiple integrative perspectives to promote the adoption of personal and collective beneficial purposes for individuals, the family, the city, the nation, and the planet. The different humanistic branches will be used as instruments to examine and reflect, in a broad and inclusive way, on the human experience in order to raise questions about the value and meaning of our existence, and to propose ways to take advantage of the teachings of the disciplines for the improvement of the human condition, the progress of a culture that expands the spirit and encourages true progress in a healthy environment.

#### Goals

- 1. Provoke the development of the student's aesthetic sensitivity endowing them with a more universal spirit and at the same time more rooted, critical, and informed.
- 2. Contribute to the ethical formation of students by exposing them to critical reflections on ethical theories of virtues and other types of ethical theories from the ancient, medieval, modern and contemporary periods, and how these apply to some of the most pressing problems of real life today.
- 3. Promote knowledge of our history, as well as that of other peoples of the past and present and identify the relationships that exist between them.
- 4. Encourage students and other components of the university to reflect on the connections that exist between different disciplines, knowledge, and practices.
- 5. Strengthen the logical and critical thinking skills of our students.

6. Promote the necessary skills to develop the virtues of a citizen committed to contributing to the improvement of the quality of life of his community and its environment.

Articulated Transfer Agreement with the Río Piedras Campus: Bachelor of Arts with concentration in: Drama, Hispanic Studies, Philosophy, Art History, History: History of Europe, History: History of the Americas, English with concentration in Literature, English with concentration in Linguistics and Communication, Comparative Literature, Music

The Articulated Transfer Agreement between the University of Puerto Rico at Ponce and the University of Puerto Rico, Río Piedras Campus for the academic program of Bachelor of Arts in Humanities with concentration in: Drama, Hispanic Studies, Philosophy, Art History, History: History of Europe, History: History of the Americas, English with concentration in Literature, English with concentration in Linguistics and Communication, Comparative Literature, Music.

The program presented below is structured taking into consideration that the student has taken the recommended sequence for the first year of studies. SPAN and ENGL subjects must be awarded taking into account whether or not the student took the Literature component in the first year. If they have not taken it, they will decide which of the two subjects to take. It should also be stated that if the student chooses to take the second-year English course in the receiving unit, they must take into account that they have to undergo a placement test that is offered every semester.

#### Additional Considerations:

- Courses of the General Education (EG) component in Art that can be recommended to the population of Transfer: MUSI 3145 and TEAT 3025. The course of ART 3116 does not appear as a course of the component of EG, nor as core of the Faculty. Instead, you can take ARTE 3118, Art in Puerto Rico, ART 3901, Fundamentals of Visual Arts, ART 3199, Introduction to Visual Arts and Art 3716, History of Photography. The syllabi of the general education courses must be submitted to the Dean of Academic Affairs of the Río Piedras Campus to verify that they comply with the general education rubric established for said courses in the Río Piedras Campus.
- ART 3115, Art Appreciation course was offered for students in the College of Education.
   Instead, you should take ARTE 3191-Western Art I.
- The ART 3191-92 course, Western Art I and II are requirements of the Art History concentration and the Fine Arts emphasis areas. Students from other concentrations may choose to take it and it counts as a Faculty Core course in the Art component, as long as you have not taken the Art component as a General Education course.
- In the recent curricular revision, the component of Mathematical Logical Thinking is a requirement for all concentrations of the Faculty and the Campus. The mathematics course (MATE 3001) replaces Logical Thinking.

#### **Humanities Programs**

#### ARTICULATED TRANSFER PROGRAM TO THE UPR RÍO PIEDRAS CAMPUS

Drama, Hispanic Studies, Philosophy, Art History, History: History of Europe, History: History of the Americas, English with concentration in Literature, English with concentration in Linguistics and Communication, Comparative Literature, Music

#### **STUDY PROGRAM**

#### First Year

First Semester		Credits
HUMA <sup>1</sup> 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	
$TEAT^{2}$ 3025	Theater Appreciation	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 3118	Art in Puerto Rico	3
ARTE 3116	General History of Western Art –	
	Condensed	
	Subtotal	18
	Second Year	
First Semester		Credits
	Foreign Language I	3
INGL	English I from second year*	3
ESPA	Spanish I from second year**	3
HIST 3241	History of Puerto Rico	3 3 3
FILO 3001	Introduction to Philosophy	
MUSI <sup>3</sup> 3225	Music History	3
	Subtotal	18

<sup>&</sup>lt;sup>1</sup> Transfer students must have passed the Humanities year course in their Unit of origin.

<sup>&</sup>lt;sup>2</sup> Except students with a major in Arts.

<sup>&</sup>lt;sup>3</sup> Except students with a major in Arts.

Second	Semester		Credits
ITAL	3002	Intensive Italian II	3
<b>INGL</b>	3252	American Literature II	3
<b>ESPA</b>	3212	Introduction to Spanish Literature II	3
HIST	3242	History of Puerto Rico II	3
FILO <sup>4</sup>	3005	Ethics	3
MATE <sup>5</sup>	3001	Introduction to Mathematics I	3
	Or	Free elective	3
		Subtotal	18

TOTAL OF CREDITS:	12
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The English courses	are
INGL 3191	
INGL 3221-3222	
INGL 3251-3252	

\*\*The Spanish courses are: ESPA 3015 ESPA 3201-3202 ESPA 3211-3212 ESPA 4235

# ARTICULATED TRANSFER PROGRAM IN ELEMENTARY EDUCATION WITH A CONCENTRATION IN SPECIAL EDUCATION TO THE UNIVERSITY OF PUERTO RICO IN CAYEY

#### THIS PROGRAM WILL BE DEACTIVATED ON THE ACADEMIC OFFER 2023-2024

#### Elementary Education with a concentration in Special Education

#### STUDY PROGRAM

#### First Year

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

Second Semester			Credits
<b>ESPA</b>	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

<sup>&</sup>lt;sup>4</sup> Or any other course on Philosophy available on the semester.

<sup>&</sup>lt;sup>5</sup> The Río Piedras Campues recommends taking the course before the transfer.

<b>EDFU</b>	3002	Human Growth and Development II	3
		Subtotal	15

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

Second Se	mester		Credits
HUMA	3102	Western Culture II	3
CIBI	3002	Fundamentals of Biology II	3
or CIFI	3002	Introduction to Physical Sciences II	
ESPA	3202	Introduction to the Literary Genres II	3
or ESPA	3212	Introduction to Spanish Literature II	
INGL	3202	English Composition and Reading II	3
or INGL	3222	Introduction to Literature II	
<b>EDES</b>	4006	Nature and Needs of Exceptional	3
		Learners	
		Subtotal	15
		TOTAL OF CREDITS:	60

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

#### Secondary Education with a concentration in Natural Sciences

#### **STUDY PROGRAM**

First Semester		Credits	
<b>ESPA</b>	3101	Basic Spanish I	3
<b>INGL</b>	3101	Basic English I	3
<b>INGL</b>	3113	Basic English Laboratory I	0
CISO	3121	Introduction to Social Sciences I	3
HUMA	3101	Western Culture I	3
<b>MATE</b>	3171	Pre-Calculus I	3

EDFU	3001	Human Crowth and Davalanment I	3
EDFU	3001	Human Growth and Development I  Subtotal	18
		Subtotal	10
Second S	Semester		Credits
<b>ESPA</b>	3102	Basic Spanish II	3
<b>INGL</b>	3102	Basic English II	3
<b>INGL</b>	3114	Basic English Laboratory II	0
CISO	3122	Introduction to Social Sciences II	3
<b>MATE</b>	3172	Pre-Calculus II	3
<b>EDFU</b>	3002	Human Growth and Development II	3
		Subtotal	18
		Second Year	
First Ser	nester	Second Tear	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
or ESPA		Introduction to Spanish Literature I	C
INGL	3201	English Composition and Reading I	3
or INGL		Introduction to Literature I	
EDFU	3007	Social Foundations of Education	3
		Subtotal	17
			-
Second S	Semester		Credits

Second Semester		<b>Credits</b>	
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
or ESPA	3212	Introduction to Spanish Literature II	
INGL	3202	English Composition and Reading II	3
or INGL	3222	Introduction to Literature II	
EDES	4006	Nature and Needs of Exceptional	3
		Learners	
		C1-4-4-1	17

Subtotal 17
TOTAL OF CREDITS: 70

#### UNIVERSITY OF PUERTO RICO IN CAYEY

#### Secondary Education with a concentration in English or Spanish THE SPANISH PROGRAM WILL BE DEACTIVATED ON THE ACADEMIC OFFER 2023-2024

#### **STUDY PROGRAM**

#### First Year

First Semester		<b>Credits</b>	
<b>ESPA</b>	3101	Basic Spanish I	3
<b>INGL</b>	3101	Basic English I	3
<b>INGL</b>	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
<b>EDFU</b>	3001	Human Growth and Development I	3
		Subtotal	18

<b>Second Semester</b>			Credits
<b>ESPA</b>	3102	Basic Spanish II	3
<b>INGL</b>	3102	Basic English II	3
<b>INGL</b>	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
<b>EDFU</b>	3002	Human Growth and Development II	3
		Subtotal	18

First Semester		Credits	
MATE	3041	Introduction to Mathematics I	3
HUMA	3201	Western Culture I	3
<b>ESPA</b>	3201	Introduction to Literary Genres I	3
or ESPA	3211	Introduction to Spanish Literature I	
INGL	3201	English Composition and Reading I	3
or INGL	3221	Introduction to Literature I	
<b>EDFU</b>	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	

<b>EDES</b>	4006	Nature and Needs of Exceptional Learners	3	
		Subtotal	15	
		TOTAL OF CREDITS:	66	

#### Secondary Education with a concentration in Physical Education

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First Year			
First Sem	ester		Credits
<b>ESPA</b>	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 Se	emester		Credits
Second Se ESPA	emester 3102	Basic Spanish II	Credits 3
		Basic Spanish II Basic English II	
ESPA	3102	•	3
ESPA INGL	3102 3102	Basic English II	3 3
ESPA INGL INGL	3102 3102 3114	Basic English II Basic English Laboratory II	3 3 0
ESPA INGL INGL CISO	3102 3102 3114 3122	Basic English II Basic English Laboratory II Introduction to Social Sciences II	3 3 0 3
ESPA INGL INGL CISO HUMA	3102 3102 3114 3122 3102	Basic English II Basic English Laboratory II Introduction to Social Sciences II Western Culture II	3 3 0 3 3
ESPA INGL INGL CISO HUMA CIBI	3102 3102 3114 3122 3102 3002	Basic English II Basic English Laboratory II Introduction to Social Sciences II Western Culture II Fundamentals of Biology II	3 3 0 3 3 3

First	Semester	

			Credits
MATE	3041	Introduction to Mathematics I	3
HUMA	3201	Introduction to Western Culture I	3
<b>ESPA</b>	3201	Introduction to Literature Genres I	3
o ESPA	3211	Introduction to Spanish Literature I	
INGL	3201	Composition and Reading I	3
$\underline{\mathbf{o}}$ INGL	3221	Introduction to Literature I	
EDFU	3007	Social Foundations of Education	3
EDFI	3555	History and Principles of Physical	3
		Education	
		Subtotal	18

Second Se	Credits		
MATE	3042	Introduction to Mathematics II	3
HUMA	3202	Introduction to Western Culture II	3
ESPA	3202	Introduction to Literature Genres II	3
o ESPA	3212	Introduction to Spanish Literature II	
INGL	3202	Composition and Reading II	3

<u>o</u> INGL	3222	Introduction to Literature II		
<b>EDES</b>	4006	Seminar Nat. y Needs of Disabled Children	3	
EDFI	3385	Physical Efficiency	2	
		Subtotal	17	-
		TOTAL OF CREDITS:	71	

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

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

First Sem	Credits		
ESPA	3201	Introduction to Literary Genres I	3
or ESPA	3211	Introduction to Spanish Literature I	
INGL	3201	English Composition and Reading I	3
or INGL	3221	Introduction to Literature I	
CISO	3121	Introduction to Social Sciences I	3

First Sen	Credits		
EDES	4018	Teaching Trainable Mentally Retarded Children	3
HUMA	3201	Western Culture III	3
		Subtotal	15

Second Ser	mester		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
or INGL	3222	Introduction to Literature II	
CISO	3121	Introduction to Social Sciences II	3
EDES	4048	Behavior Modification and its	3
		Application in the Classroom	
HUMA	3202	Western Culture IV	3
EDFU	3007	Social Foundations of Education	3
		Subtotal	18
		TOTAL OF CREDITS:	69

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.

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: Chemistry, Physics, Teaching English to Spanish Speakers, Theater, Art, Physical Education, Mathematics, Special Education.

#### ARTS

First Sen	nester		Credits
<b>ESPA</b>	3101	Basic Spanish I	3
INGL	3101	Basic English I	3
INGL	3113	Basic English Laboratory I	0
or 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	18

Second S	emester		<b>Credits</b>
<b>ESPA</b>	3102	Basic Spanish II	3
INGL	3102	Basic English II	3
INGL	3114	Basic English Laboratory II	0
or 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
<b>EDFU</b>	3002	Human Growth and Development II	3
		Subtotal	18

#### **Second Year**

First Sem	Credits		
<b>ESPA</b>	3201	Introduction to Literary Genres I	3
or ESPA	3211	Introduction to Spanish Literature I	
MATE	3041	Introduction to Mathematics I	3
INGL	3201	English Composition and Reading I	3
or 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	3
		Learners	
		Subtotal	18

		Subtotal	18
Second Se	mester		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
		Total of Creditar	60

Total of Credits: 69

**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.

#### PHYSICAL EDUCATION

First Semester			Credits
<b>ESPA</b>	3101	Basic Spanish I	3
INGL	3101	Basic English I	3
INGL	3113	Basic English Laboratory I	0
or INGL	3103	Intermediate English I	
CIBI	3001	Fundamentals of Biology I	3
<b>MATE</b>	3041	Introduction to Mathematics I	3

<sup>\*</sup> Requires evaluation plan of the Articulated Program.

First Semester			Credits
HUMA	3101	Western Culture I	3
<b>EDFU</b>	3001	Human Growth and Development I	3
		Subtotal	18
Second S	lomoston		Credits
		Davis Chanish II	
ESPA	3102	Basic Spanish II	3 3
INGL	3102	Basic English II	
INGL	3114	Basic English Laboratory II	0
or INGL		Intermediate English II	2
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	18
		Second Year	
First Sen	nester		Credits
<b>ESPA</b>	3201	Introduction to Literary Genres I	3
or ESPA	3211	Introduction to Spanish Literature I	
<u>I</u> NGL	3201	English Composition and Reading I	3
or INGL	3221	Introduction to Literature I	
CISO	3121	Introduction to Social Sciences I	3
EDFI	3555	History and Principles of Physical	3
		Education	_
HUMA	3201	Western Culture III	3
EDES	4006	Nature and Needs of Exceptional	3
		Learners	-
		Subtotal	18

Second Semester			Credits
ESPA	3202	Introduction to Literary Genres II	3
or ESPA	3212	Introduction to Spanish Literature I	
INGL	3202	English Composition and Reading II	3
or 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
<b>EDFU</b>	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.

#### TEACHING ENGLISH TO SPANISH SPEAKERS

		First Year	
First Sen	nester		Credits
<b>ESPA</b>	3101	Basic Spanish I	3
<b>INGL</b>	3101	Basic English I	3
INGL	3113	Basic English Laboratory I	0
or INGL	3103	Intermediate English I	
CIBI	3001	Fundamentals of Biology I	3
<b>MATE</b>	3041	Introduction to Mathematics I	3
HUMA	3101	Western Culture I	3
<b>EDFU</b>	3001	Human Growth and Development I	3
		Subtotal	18
	_		
Second S		5	Credits
ESPA	3102	Basic Spanish II	3
INGL	3102	Basic English II	3
INGL	3114	Basic English Laboratory II	0
or INGL		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	18
		Second Year	
First Sen	nester	Second Year	Credits
First Sen			Credits
ESPA	3201	Introduction to Literary Genres I	Credits 3
ESPA <u>or</u> ESPA	3201 3211	Introduction to Literary Genres I Introduction to Spanish Literature I	3
ESPA or ESPA INGL	3201 3211 3201	Introduction to Literary Genres I	
ESPA or ESPA INGL or INGL	3201 3211	Introduction to Literary Genres I Introduction to Spanish Literature I English Composition and Reading I Introduction to Literature I	3
ESPA or ESPA INGL or INGL CISO	3201 3211 3201 3221 3121	Introduction to Literary Genres I Introduction to Spanish Literature I English Composition and Reading I Introduction to Literature I Introduction to Social Sciences I	3
ESPA or ESPA INGL or INGL	3201 3211 3201 3221	Introduction to Literary Genres I Introduction to Spanish Literature I English Composition and Reading I Introduction to Literature I	3 3 3
ESPA or ESPA INGL or INGL CISO	3201 3211 3201 3221 3121	Introduction to Literary Genres I Introduction to Spanish Literature I English Composition and Reading I Introduction to Literature I Introduction to Social Sciences I	3 3 3
ESPA or ESPA INGL or INGL CISO CIFI	3201 3211 3201 3221 3121 3001	Introduction to Literary Genres I Introduction to Spanish Literature I English Composition and Reading I Introduction to Literature I Introduction to Social Sciences I Introduction to Physical Science I Western Culture III	3 3 3 3
ESPA or ESPA INGL or INGL CISO CIFI HUMA	3201 3211 3201 3221 3121 3001 3201	Introduction to Literary Genres I Introduction to Spanish Literature I English Composition and Reading I Introduction to Literature I Introduction to Social Sciences I Introduction to Physical Science I	3 3 3 3
ESPA or ESPA INGL or INGL CISO CIFI HUMA	3201 3211 3201 3221 3121 3001 3201	Introduction to Literary Genres I Introduction to Spanish Literature I English Composition and Reading I Introduction to Literature I Introduction to Social Sciences I Introduction to Physical Science I Western Culture III Nature and Needs of Exceptional	3 3 3 3
ESPA or ESPA INGL or INGL CISO CIFI HUMA EDES	3201 3211 3201 3221 3121 3001 3201 4006	Introduction to Literary Genres I Introduction to Spanish Literature I English Composition and Reading I Introduction to Literature I Introduction to Social Sciences I Introduction to Physical Science I Western Culture III Nature and Needs of Exceptional Learners	3 3 3 3 3 3 18
ESPA or ESPA INGL or INGL CISO CIFI HUMA EDES	3201 3211 3201 3221 3121 3001 3201 4006	Introduction to Literary Genres I Introduction to Spanish Literature I English Composition and Reading I Introduction to Literature I Introduction to Social Sciences I Introduction to Physical Science I Western Culture III Nature and Needs of Exceptional Learners Subtotal	3 3 3 3 3 18 Credits
ESPA or ESPA INGL or INGL CISO CIFI HUMA EDES  Second S ESPA	3201 3211 3201 3221 3121 3001 3201 4006	Introduction to Literary Genres I Introduction to Spanish Literature I English Composition and Reading I Introduction to Literature I Introduction to Social Sciences I Introduction to Physical Science I  Western Culture III Nature and Needs of Exceptional Learners  Subtotal  Introduction to Literary Genres II	3 3 3 3 3 3 18
ESPA  or ESPA INGL or INGL CISO CIFI HUMA EDES  Second S ESPA or ESPA	3201 3211 3201 3221 3121 3001 3201 4006	Introduction to Literary Genres I Introduction to Spanish Literature I English Composition and Reading I Introduction to Literature I Introduction to Social Sciences I Introduction to Physical Science I  Western Culture III Nature and Needs of Exceptional Learners  Subtotal  Introduction to Literary Genres II Introduction to Spanish Literature I	3 3 3 3 3 18 Credits 3
ESPA  or ESPA INGL  or INGL CISO CIFI  HUMA EDES  Second S ESPA or ESPA INGL	3201 3211 3201 3221 3121 3001 3201 4006 Semester 3202 3212 3202	Introduction to Literary Genres I Introduction to Spanish Literature I English Composition and Reading I Introduction to Literature I Introduction to Social Sciences I Introduction to Physical Science I  Western Culture III Nature and Needs of Exceptional Learners  Subtotal  Introduction to Literary Genres II Introduction to Spanish Literature I English Composition and Reading II	3 3 3 3 3 18 Credits
ESPA  or ESPA INGL or INGL CISO CIFI HUMA EDES  Second S ESPA or ESPA	3201 3211 3201 3221 3121 3001 3201 4006	Introduction to Literary Genres I Introduction to Spanish Literature I English Composition and Reading I Introduction to Literature I Introduction to Social Sciences I Introduction to Physical Science I  Western Culture III Nature and Needs of Exceptional Learners  Subtotal  Introduction to Literary Genres II Introduction to Spanish Literature I	3 3 3 3 3 18 Credits 3

CIFI	3002	Introduction to Physical Sciences II	3
HUMA	3202	Western Culture IV	3
<b>EDFU</b>	3007	Social Foundations of Education	3
		Subtotal	18
		Total of Credits:	72

**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.

# **PHYSICS** First Year

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

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

First Semester			Credits
<b>ESPA</b>	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

First Semester			Credits
HUMA	3201	Western Culture III	3
<b>EDES</b>	4006	Nature and Needs of Exceptional	3
		Learners	
		Subtotal	19

Second Semester			Credits
ESPA	3202	Introduction to Literary Genres II	3
or ESPA	3212	Introduction to Spanish Literature II	
INGL	3202	English Composition and Reading II	3
or 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	19
		<b>Total of Credits:</b>	<b>74</b>

**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.

#### **MATHEMATICS**

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First Semester			Credits
<b>ESPA</b>	3101	Basic Spanish I	3
INGL	3101	Basic English I	3
INGL	3113	Basic English Laboratory I	0
or INGL	3103	Intermediate English I	
<b>MATE</b>	3171	Pre-Calculus	3
CIBI	3001	Fundamentals of Biology I	3
HUMA	3101	Western Culture I	3
<b>EDFU</b>	3001*	Human Growth and Development I	3
		Subtotal	18
Second Semester			Credits
<b>ESPA</b>	3102	Basic Spanish II	3

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

#### **Second Year**

First Sem	Credits		
CISO	3121	Introduction to Social Sciences I	3
<b>ESPA</b>	3201	Introduction to Literary Genres I	3
or ESPA	3211	Introduction to Spanish Literature I	
INGL	3201	English Composition and Reading I	3
or 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
<b>EDES</b>	4006	Nature and Needs of Exceptional	3
		Learners	
		Subtotal	19

Second Se	mester		Credits
CISO	3122	Introduction to Social Sciences II	3
ESPA	3202	Introduction to Literary Genres II	3
or ESPA	3212	Introduction to Spanish Literature I	
INGL	3202	English Composition and Reading II	3
or 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	19
		<b>Total of Credits:</b>	74

<sup>\*</sup> Requires assessment plan from the Articulated Program

**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.

#### **CHEMISTRY**

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

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

#### **Second Year**

First Sem	Credits		
ESPA 3201		Introduction to Literary Genres I	3
or ESPA	3211	Introduction to Spanish Literature I	
INGL	3201	English Composition and Reading I	3
or 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
<b>EDES</b>	4006	Nature and Needs of Exceptional	3
		Learners	
		Subtotal	19

Second Se	Credits		
ESPA	3202	Introduction to Literary Genres II	3
or ESPA	3212	Introduction to Spanish Literature I	
INGL	3202	English Composition and Reading II	3
or 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	19
		<b>Total Credits</b>	<b>74</b>

<sup>\*</sup> Requires assessment plan from the Articulated Program.

**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.

#### **THEATER**

First Semester			Credits
ESPA	3101	Basic Spanish I	3

First Sen			Credits
INGL	3101	Basic English I	3
INGL	3113	Basic English Laboratory I	0
or INGL		Intermediate English I	
CIBI	3001	Fundamentals of Biology I	3
EDFU	3001*	Human Growth and Development I	3
HUMA	3101	Western Culture I	3
		Subtotal	15
Second S	Semester		Credits
<b>ESPA</b>	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	15
		Second Year	
First Sen			Credits
MATE	3041	Introduction to Mathematics I	3
ESPA	3201	Introduction to Literary Genres I	3
or ESPA		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

		Learners	
		Subtotal	18
Second Se	mester		Credits
ESPA	3202	Introduction to Literary Genres II	3
or 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	18

Nature and Needs of Exceptional

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

**Total Credits** 

3

66

**EDES** 

<sup>\*</sup> Requires assessment plan from the Articulated Program

#### **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

First Semester			Credits
<b>ESPA</b>	3101	Basic Spanish I	3
<b>INGL</b>	3101	Basic English I	3
<b>INGL</b>	3113	Basic English Laboratory I	0
<b>INGE</b>	3011	Engineering Graphics I	2
MATE	3005	Pre-Calculus*	5
QUIM	3001	General Chemistry I	4
QUIM	3003	General Chemistry I Laboratory	0
		Subtotal	<del></del>

Second S	Credits		
<b>ESPA</b>	3102	Basic Spanish II	3
<b>INGL</b>	3102	Basic English II	3
<b>INGL</b>	3114	Basic English Laboratory II	0
<b>EDFI</b>		Physical Education Elective	2
<b>MATE</b>	3031	Calculus I**	4
QUIM	3002	General Chemistry II	4
QUIM	3004	General Chemistry II Laboratory	0
_		Subtotal	16

#### **Second Year**

First Semes	ster		Credits
FISI	3171	Physics I	4
FISI	3173	Physics Laboratory I	1
INGE	3031	<b>Engineering Mechanics-Statics</b>	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:

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INGE 3012 – Engineering Graphics II (2 credits)
INGE 4011 – Mechanics of Materials I (3 credits)
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#### **Mathematics Programs**

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

#### DEPARTMENT OF MATHEMATICS

#### Mission

The Department of Mathematics offers the mathematics courses required by the study programs of this university institution and the articulated transfers with other campuses of the University of Puerto Rico, thus fulfilling its mission of serving the university community.

#### Vision

The vision of our Department is to provide a preparation or quantitative training of high quality to all its students.

#### Goals

The following goals of the Department are related to the mission of the University of Puerto Rico at Ponce:

- 1. Develop the mathematical skills that contribute to the formation of the student in the academic career of his predilection and that they will apply in their daily lives.
- 2. To provide a program of study of excellence for those qualified students who, eventually, will move to larger campuses to complete the degree of Bachelor of Science with a specialty in Mathematics.
- 3. Encourage research and analysis.
- 4. Serve the entire university community by offering the mathematics courses necessary for the enrichment of all of the academic programs.
- 5. Within the courses it is intended, among other things, that the student can:
  - a. Accurately use symbolism and problem-solving techniques
  - b. Appreciate the usefulness of mathematics as a tool applicable in the learning of other disciplines and at work.
  - c. Contribute to the dissemination of relevant mathematical concepts

d. Contribute to the development and dissemination of effective techniques for teaching mathematics.

#### STUDY PROGRAM MATHEMATICS First Year

		First Year	
First Sem	iester		Credits
*MATE	3005	Pre-Calculus or	5
or 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
CIBI	3001	Fundamentals of Biology I	3
		Subtotal	16 or 18
Second S	emester		Credits
*MATE	3031	Calculus I or	4
or 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
CIBI	3002	Fundamentals of Biology II	3
EDFI		Physical Education Elective	1
LDIT		Filysical Education Elective	1
LDIT		Subtotal	17 or 18
LDIT		Subtotal	
		•	17 or 18
First Sem	nester	Subtotal Second Year	17 or 18  Credits
First Sem	nester 3032	Subtotal  Second Year  Calculus II <sup>6</sup>	17 or 18  Credits 4
First Sem	nester	Subtotal  Second Year  Calculus II <sup>6</sup> Introduction to the Foundations of	17 or 18  Credits
First Sem MATE MATE	nester 3032 3020	Subtotal  Second Year  Calculus II <sup>6</sup> Introduction to the Foundations of Mathematics	17 or 18  Credits 4 3
First Sem MATE MATE INGL	3032 3020 3	Subtotal  Second Year  Calculus II <sup>6</sup> Introduction to the Foundations of Mathematics Second Year English	17 or 18  Credits 4
First Sem MATE MATE	nester 3032 3020	Subtotal  Second Year  Calculus II <sup>6</sup> Introduction to the Foundations of Mathematics Second Year English Introduction to Computer	17 or 18  Credits 4 3
First Sem MATE MATE INGL	3032 3020 3	Subtotal  Second Year  Calculus II <sup>6</sup> Introduction to the Foundations of Mathematics Second Year English Introduction to Computer Programming I	17 or 18  Credits 4 3
First Sem MATE MATE INGL COMP	3032 3020 3	Subtotal  Second Year  Calculus II <sup>6</sup> Introduction to the Foundations of Mathematics Second Year English Introduction to Computer Programming I Second Year Spanish	17 or 18  Credits 4 3 3 3
First Sem MATE MATE INGL COMP	3032 3020 3	Subtotal  Second Year  Calculus II <sup>6</sup> Introduction to the Foundations of Mathematics Second Year English Introduction to Computer Programming I Second Year Spanish Physical Education Elective	17 or 18  Credits 4 3 3 3 3
First Sem MATE MATE INGL COMP	3032 3020 3	Subtotal  Second Year  Calculus II <sup>6</sup> Introduction to the Foundations of Mathematics Second Year English Introduction to Computer Programming I Second Year Spanish	17 or 18  Credits 4 3 3 1
First Sem MATE MATE INGL COMP	3032 3020 3 3010	Subtotal  Second Year  Calculus II <sup>6</sup> Introduction to the Foundations of Mathematics Second Year English Introduction to Computer Programming I Second Year Spanish Physical Education Elective	17 or 18  Credits 4 3 3 1
First Sem MATE MATE INGL COMP ESPA EDFI	3032 3020 3 3010	Subtotal  Second Year  Calculus II <sup>6</sup> Introduction to the Foundations of Mathematics Second Year English Introduction to Computer Programming I Second Year Spanish Physical Education Elective	17 or 18  Credits 4 3 3 1 17
First Sem MATE MATE INGL COMP ESPA EDFI	3032 3020 33010 	Subtotal  Second Year  Calculus II <sup>6</sup> Introduction to the Foundations of Mathematics Second Year English Introduction to Computer Programming I Second Year Spanish Physical Education Elective Subtotal	17 or 18  Credits 4 3 3 1 17 Credits
First Sem MATE MATE INGL COMP ESPA EDFI Second Se MATE	3032 3020 33010  emester 3063	Subtotal  Second Year  Calculus II <sup>6</sup> Introduction to the Foundations of Mathematics Second Year English Introduction to Computer Programming I Second Year Spanish Physical Education Elective Subtotal	17 or 18  Credits 4 3 3 1 17 Credits 3
First Sem MATE MATE INGL COMP ESPA EDFI Second Se MATE FISI	3032 3020 33010  emester 3063 3171	Subtotal  Second Year  Calculus II <sup>6</sup> Introduction to the Foundations of Mathematics Second Year English Introduction to Computer Programming I Second Year Spanish Physical Education Elective Subtotal  Calculus III Physics I	17 or 18  Credits 4 3 3 1 17 Credits 3 4

<sup>&</sup>lt;sup>6</sup> Students who had MATE 3172, Pre-Calculus II the previous semester must enroll in this course's requirement, MATE 3031- Calculus I, during the summer.

MATE	4031	Linear Algebra	3
<b>ESPA</b>	3	Second Year Spanish	3
		Subtotal	17
		Total Credits	67-70

#### STUDY PROGRAM

#### **COMPUTER SCIENCES**

First Year			
First Sem	Credits		
*MATE	3005	Pre-Calculus or	5
or MATE	3171	Pre-Calculus I	3
CIBI	3001	Fundamentals of Biology I	3
CISO	3121	Introduction to Social Sociences I	3
*INGL	3	First Year English	3
*ESPA	3101	Basic Spanish I	3
		Subtotal	15 or 17
Second S	emester		Credits
*MATE	3031	Calculus I or	4
or MATE	3172	Pre-Calculus II	3
CIBI	3002	Fundamentals of Biology II	3
COMP	3010	Introduction to Computer	3
		Programming I	
*INGL	3	First Year English	3
*ESPA	3102	Basic Spanish II	3
EDFI		Physical Education Elective	1
		Subtotal	16 or 17
		Second Year	
First Sem	ester		Credits
MATE	3032	Calculus II	4
MATE	3181	Discrete Mathematics	3
COMP	3110	Introduction to Computer	3
		Programming II	
INGL	3	Second Year English	3
ESPA	3	Second Year Spanish	3
EDFI		Physical Education Elective	1
		Subtotal	17

Second Ser	Credits		
MATE	3063	Calculus III	3
COMP	4016	Computer Organization	3
COMP	3075	Introduction to Structural Data	3
CISO	3122	Introduction to Social Sciences II	3
ESPA	3	Second Year Spanish	3

3

Subtotal
Total of Credits:

66-68

## STUDY PROGRAM EDUCATION: MATHEMATICS

#### First Year

		First Year	
First Semest	ter		Credits
*MATE	3005	Pre-Calculus	5
or MATE	3171	Pre-Calculus I	3
EDFU	3001	Human Growth and Development I	3 3
CIBI	3001	Fundamentals of Biology I	3
*INGL	3	First Year English	3
*ESPA	3101	Basic Spanish I	3
		Subtotal	15 or 17
Second Sem	ester		Credits
*MATE	3031	Calculus I	4
or MATE	3172	Pre-Calculus II	3
EDFU	3002	Human Growth and Development II	3
CIBI	3002	Fundamentals of Biology II	3
*INGL	3	First Year English	3
*ESPA	3102	Basic Spanish II	3
		Subtotal	15 or 16
		Second Year	
First Semest	ter		Credits
MATE	3032	Calculus II	4
MATE	3020	Introduction to the Foundations of	3
		Mathematics	
HIST or	3241	History of Puerto Rico	3
HIST	3242	•	
ESPA		Second Year Spanish	3
		Science Elective	4
EDFI		Physical Education Elective	1
		Subtotal	18
Second Sem	ester		Credits
MATE	306	3 Calculus III	3
ESPA		~ 1** ~ 1.	3
MATE	303	<del>-</del>	3
COMP	301	, ,	3
COMI	301	Programming I	3
		Science Elective	4
EDFI		Physical Education Elective	1
		Subtotal	18
		Total of Credits	65-68

# Articulated Transfer Bachelor's Degree in Computational Mathematics to the University of Puerto Rico in Humacao THIS PROGRAM WILL BE DEACTIVATED ON THE ACADEMIC OFFERINGS 2023-2024

First Y	ear
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First Ser	mester		Credits
MATE	3005	Pre-Calculus	5
<u>or</u> MATE	3171	Pre-Calculus I	3
COMP	3010	Introduction to Computer Programming I	3
<b>INGL</b>	3101	Basic English I	3
<b>INGL</b>	3103	Basic English I Laboratory	0
<b>ESPA</b>	3101	Basic Spanish I	3
CISO	3121	Introduction to Social Sciences I	3
		Subtotal	15 or 17

<b>Second Semester</b>			Credits
MATE	3031	Calculus I	4
or 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
<b>ESPA</b>	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
or 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
or 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	19 or 20
		<b>Total of Credits:</b>	69-73

# Articulated Transfer Bachelor's Degree in Sciences with a Concentration in Mathematics University of Puerto Rico in Cayey THIS PROGRAM WILL BE DEACTIVATED ON THE ACADEMIC OFFERINGS 2023-2024

#### First Year

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

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

#### **Second Year**

First Semester			Credits
MATE	3031	Calculus I	4
ESPA	3201	Introduction to the Literary Genres I	3
or 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
or MATE	4031	Linear Algebra	
		Subtotal	18

Second Semester			Credits
MATE	3032	Calculus II	4
ESPA	3202	Introduction to Literary Genres II	3
or 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
		Total of Credits:	68

NOTE: To take the MATE 3005 course, in any of the programs, the student must have earned a score of 730 or higher in the College. Otherwise, you will need to take MATE 3171.

#### DEPARTMENT OF CHEMISTRY AND PHYSICS

#### **MISSION**

The Department of Chemistry and Physics of the University of Puerto Rico at Ponce offers articulated transfer programs in Chemistry and Physics for those students who wish to continue studies leading to the degree of Bachelor of Science in these specialties in those campuses of the University of Puerto Rico with which the Department has established articulation agreements and in accordance with the mission and goals of the University of Puerto Rico. It encourages and motivates in the student the theoretical and practical knowledge of the chemical and physical sciences for the development of a professional with the capacity for independent study, the use of critical thinking in the solution of problems in the disciplines, teamwork and being able to evaluate situations of scientific interest with ethical sense.

In addition, it provides courses to other departments according to their programmatic needs and interests.

#### **VISION**

Train our students to be reflective, critical, and knowledgeable professionals in their discipline and who can make significant contributions to Puerto Rican society.

#### **GOALS**

- Develop logical and critical thinking.
- Develop teamwork skills.
- Have basic knowledge of fundamental chemical concepts.

#### **OBJECTIVES**

- Train students to continue studies leading to a Baccalaureate in Natural Sciences with emphasis in Chemistry or Physics.
- Train students to continue studies leading to a Doctorate in Pharmacy.

#### **GRADUATE PROFILE**

Graduates of the Transfer Program in Chemistry and Physics will possess the following knowledge, skills and attitudes:

- Analyze and interpret data.
- Communicate orally and in writing in English and Spanish.
- Solve mathematical problems that involve general concepts of chemistry.
- Solve problems involving general concepts of chemistry.
- Work independently or in groups.
- Analyze with critical thinking the solution to problems in the disciplines.

#### **Chemistry Programs**

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

		First Year	
First Sem	ester		Credits
QUIM	3001	General Chemistry I	4
QUIM	3003	General Chemistry I Lab	0
**MATE	3005	Pre-Calculus	4
ESPA	3101	Basic Spanish I	3
*INGL	3101	Basic English I	3
INGL	3113	Basic English I Lab	0
HUMA	3111	Compendium Study Western Culture I	3
EDFU	3005	University Life	0
		Subtotal	18
Second Sen	iester		
QUIM	3002	General Chemistry II	4
QUIM	3004	General Chemistry II Lab	0
**MATE	3031	Calculus I	4
ESPA	3102	Basic Spanish II	3
*INGL	3102	Basic English II	3
INGL	3114	Basic English II Lab	0
HUMA	3112	Compendium Study Western Culture II	3
<b>EDFU</b>	3005	University Life	0
		Subtotal	17

<sup>\*</sup> ENGL 3103 – Intermediate English I, if you score more than 650 on the *PEAU* English Achievement Test.

#### **Second Year**

First Semester		Credits
3031	Organic Chemistry I	4
3033	Organic Chemistry I Lab	0
3011	General Biology I	4
3013	General Biology I Lab	0
3032	Calculus II	4
3	Second Year English	3
3171	Physics for Engineers I	4
3173	Physics for Engineers I Lab	0
	Subtotal	20
	3031 3033 3011 3013 3032 3 3171	3031 Organic Chemistry I 3033 Organic Chemistry I Lab 3011 General Biology I 3013 General Biology I Lab 3032 Calculus II 3 Second Year English 3171 Physics for Engineers I 3173 Physics for Engineers I Lab

<sup>\*</sup> INGL 3104 – Intermediate English II, if you score more than 650 on the *PEAU* English Achievement Test.

<sup>\*\*</sup> MATE 3171 – Pre-Calculus I, if you score less than 650 on the *PEAU* Math Achievement Test.

<sup>\*\*</sup> MATE 3172, Pre-Calculus II, if you took and passed MATE 3171.

Second S	Semester		
QUIM	3033	Organic Chemistry II	4
QUIM	3034	Organic Chemistry II Lab	0
BIOL	3012	General Biology II	4
BIOL	3014	General Biology II Lab	0
MATE	3063	Calculus III	3
INGL	3	Second Year English	3
FISI	3172	Physics for Engineers II	4
		Subtotal	18

**Total of Credits: 73** 

#### Articulated Transfer Bachelor's Degree in Industrial Chemistry University of Puerto Rico in Humacao

#### **CHEMISTRY**

#### First Year

First Semester		Credits	
QUIM	3001	General Chemistry I	4
QUIM	3003	General Chemistry I Laboratory	0
MATE	3171	Pre-Calculus I	3
<b>ESPA</b>	3101	Basic Spanish I	3
*INGL	3101_	Basic English I	3
<b>INGL</b>	3113	Basic English I Lab	0
CISO	3121	Introduction to Social Sciences I	3
		Subtotal	16

<b>Second Semester</b>			Credits
QUIM	3002	General Chemistry II	4
QUIM	3004	General Chemistry II Laboratory	0
<b>MATE</b>	3172	Pre-Calculus II	3
<b>ESPA</b>	3102	Basic Spanish II	3
*INGL	3102	Basic English II	3
<b>INGL</b>	3114	Basic English II Lab	0
CISO	3122	Introduction to Social Sciences II	3
<b>EDFU</b>	3005	University Life	0
		Subtotal	16

<sup>\*</sup> ENGL 3103 – Intermediate English I, if you score more than 650 on the PEAU English Achievement Test.

<sup>\*</sup> If the student passes the courses ENGL 3101 – ENGL 3102 in during the first year of studies, they must take ENGL 3201 – ENGL 3202 (Grammar, Composition and Reading I and II) in their second year of studies

<sup>\*</sup> If a student passes the courses ENGL 3103 – ENGL 3104 during the first year of studies, they must take ENGL 3221 – ENGL 3222 (Introduction to Literature I and II) in their second year of study

\* ENGL 3104 – Intermediate English II, if you score more than 650 on the PEAU English Achievement Test.

#### **Second Year**

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

Second Semester			Credits
QUIM	3032	Organic Chemistry II	4
QUIM	3034	Organic Chemistry II Laboratory	0
BIOL	3012	General Biology II	4
BIOL	3014	General Biology II Laboratory	0
<b>MATE</b>	3032	Calculus II	4
<b>INGL</b>	3202	English Composition and Reading II	3
<b>ESPA</b>	3212	Introduction to Spanish Literature II	3
		Subtotal	18
		<b>Total of Credits:</b>	68

#### Articulated Transfer in Theoretical Physics University of Puerto Rico in Mayagüez

#### First Year

First Semester		
Course	Description	Credits
*MATE 3005	Pre-Calculus I	5
QUIM 3001	General Chemistry I	4
QUIM 3003	Gen. Chemistry Lab. I	0
INGL 3	First Year English	3
**ESPA 3101*	Basic Spanish I	3
CISO 3	Introduction to Social Science	3
	Subtotal	18

#### **Second Semester**

Course	Description	Credits
MATE 3031	Calculus I	4
QUIM 3002	General Chemistry II	4
QUIM 3004	General Chemistry Lab. II	0
*INGL 3	First Year Eng.	3
*ESPA 3102	Basic Spanish II	3

CISO 3	Introduction to Social Science	3
EDFI	Physical Education	2
	Subtotal	19

#### **Second Year**

First Semeste	r	
Course	Description	Credits
MATE 3032	Calculus II	4
FISI 3171	Physics for Engineers I	4
FISI 3173	Physics for Engineers Lab.I	1
BIOL 3011	General Biology I	4
BIOL 3013	General Biology Lab. I	0
ESPA	Spanish (above basic level)	3
INFL	Second Year Eng.	3
	Subtotal	19

#### **Second Semester**

Course	Description		Credits
MATE 3063	Calculus II		3
FISI 3172	Physics for Engineers II		4
FISI 3174	Physics for Engineers Lab.II		1
BIOL 3012	General Biology II		4
BIOL 3014	General Biology Lab. II		0
ESPA	Spanish (above basic level)		3
INGL	Second Year Eng.		3
	_	Subtotal	18

**Total of Credits: 74** 

## Articulated Transfer in Physical Sciences University of Puerto Rico in Mayagüez First Year

First Semester		
Course	Description	<b>Credits</b>
*MATE 3005	Pre-Calculus I	5
QUIM 3001	General Chemistry I	4
QUIM 3003	Gen. Chemistry Lab. I	0
INGL 3	First Year Eng.	3
**ESPA 3101*	Basic Spanish I	3
CISO 3	Introduction to Social Science	3
	Subtotal	18

#### **Second Semester**

Course	Description	Credits
MATE 3031	Calculus I	4
QUIM 3002	General Chemistry II	4
<b>QUIM 3004</b>	Gen. Chemistry Lab. II	0
*INGL 3	First Year Eng.	3

<sup>\*</sup> Depends on CEEB scores and advanced level exams.

\*\* The course of Literary Genres (ESPA 3201-3202) are not accepted.

*ESPA 3102	Basic Spanish II	3
CISO 3	Introduction to Social Science	3
EDFI	Physical Education	2
	Subtotal	19

#### **Second Year**

#### **First Semester**

Course	Description		Credits
MATE 3032	Calculus I		4
FISI 3171	Physics for Engineers I		4
FISI 3173	Physics for Engineers Lab I		1
BIOL 3011	General BiologyI		4
BIOL 3013	Genera Biology Lab. I		0
ESPA	Spanish (above basic level)		3
INGL	Second Year English		3
		Subtotal	19

#### **Second Semester**

Course	Description		Credits
MATE 3063	Calculus II		3
FISI 3172	Physics for Engineers II		4
FISI 3174	Physics for Engineers Lab II		1
BIOL 3012	General Biology II		4
<b>BIOL 3014</b>	Genera Biology Lab. II		0
ESPA	Spanish (above basic level)		3
INGL	Second Year Eng.		3
	_	Subtotal	18

**Total of Credits: 74** 

<sup>\*</sup> Depends on CEEB scores and advanced level exams.

\*\* The course of Literary Genres (ESPA 3201-3202) are not accepted

## Associate Degree Programs



#### PART VIII ASSOCIATE DEGREE PROGRAM

#### DEPARTMENT OF BUSINESS ADMINISTRATION AND COMPUTER SCIENCE

#### ASSOCIATE DEGREE IN ENTREPRENEURSHIP AND ADMINISTRATION

#### Brief description of the program

The Associate Degree in Entrepreneurship and Administration is designed to prepare professionals with basic business administration skills with a focus on entrepreneurship and soft skills development. A unique combination of courses will allow graduates to perform front-line administrative tasks in various organizations, as well as have the skills needed to establish small businesses.

#### Vision

The Associate Degree in Entrepreneurship and Administration at the University of Puerto Rico at Ponce will be internationally recognized for its professional accreditation and the professional excellence of its graduates.

#### Mission

"To train entrepreneurs and professionals capable of developing new companies and of performing effectively as supervisors, front-line managers, entrepreneurs and leaders in diverse organizations with ethical values and practical and technical knowledge in business administration."

#### Goals and objectives

- o Prepare professionals who can fulfill essential and practical functions in the administration of an organization in an effective academic program accredited by an internationally recognized agency.
- Develop an entrepreneurial mindset that encourages self-management and diversifies the employment opportunities of graduates.
- Prepare professionals who have the skills to innovate and use technological resources in the administration and development of a company.
- Effectively link students with industry to facilitate learning and their integration into the labor and business field.
- o Integrate the student in an effective, innovative and convenient way in the teaching-learning processes.

#### **Graduate Profile**

- o Knowledge of the principles applicable in the administration of a company.
- O Skills needed to start a business.
- Ability to communicate effectively.
- o Develop soft skills needed to effectively perform in the business and labor world
- o Capable of working in a team
- Skills in the use of information technologies

#### **Statement of Values**

The values of integrity, responsibility, fairness, respect, and trust guide faculty, students, and non-teaching staff to fulfill the Mission of the Department of Business Administration. These values will unify the department in the pursuit of academic excellence, goals and purposes within a framework of personal and professional responsibilities based on ethical-social conduct.

*Integrity.* Act in an upright, probative and impeccable manner in the fulfillment of duties. Be committed to the search for truth, avoid situations involving potential conflicts of interest, and model of decency and decorum for the community.

*Responsibility*. Be committed to the faithful fulfillment of obligations diligently and promptly. This value implies the commitment to provide an effective service so that optimal use is made of resources, properly informed decisions are made and the actions taken are held accountable. Comprehensive service to students is a priority responsibility.

*Justice*. Show objectivity and impartiality when making decisions. It will be guided by duty or conscience in the application of rules and regulations that affect academic and administrative activities. In the granting of promotions, evaluations and qualifications, discrimination will be based on intellectual and professional merits and not on subjective factors.

*Respect.* Treat all people with dignity and protect their rights. It shall endeavour to foster an atmosphere of mutual respect, tolerance for diversity of opinions, participation in deliberative processes and differences of opinion. This is essential to nurture the creative expression that characterizes the university.

*Trust*. Act firmly and securely in all communications and actions. The actions will be characterized by transparency, equity and accuracy in the processes. The right to privacy shall be respected and promoted among all components.

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#### ASSOCIATE DEGREE IN ENTREPRENEURSHIP AND ADMINISTRATION

#### STUDY PROGRAM FIRST YEAR

First Se	omogton		Credits
		D ' C '11	
ESPA	3101	Basic Spanish I	3
ADEM		Interdisciplinary Seminar	3
SICI	3211	Introduction to Information Systems	3
	3115	Principles of Marketing	3
ADMI	3100	Development of new businesses	3
		Subtotal	15
Second	Semeste	r	Credis
<b>ESPA</b>	3102	Basic Spanish II	3
ADMI	3005	Management Theory	3
CONT	3005	Fundamentals of Accounting I	4
ADMI	3150	Business Plan Deveolpment	3
MERC	3215	Electronic Marketing	3
		Subtotal	16
		Second Year	
First Se	mester	5000114 1041	Credits
INGL	3101	Basic Eng. I	3
CONT	3006	Fundamentals of Accounting II	4
ADMI	3155	Creativity and Business Innovation	3
MATE		Introductary Mathematics	3
GERE	4027	Management Supervision Principles	3
CLIL	.02,	Subtotal	16
<b>a</b> .	<b>a</b> .		G 11.
	Semester		Credits
INGL	3102	Basic Eng. II	3
FINA	3006	Commercial Finance	3
ADMI		Small Business Administration	3
CONT	4037	Accounting Information System	3
HIST	3242	History of Puerto Rico II	3
		Subtotal	15

**Total of Credits:** <u>62</u>

## HEALTH ALLIED STUDIES ASSOCIATE DEGREE PROGRAM IN PHYSICAL THERAPY SCIENCES

The Associate of Science Degree in Physical Therapy at the University of Puerto Rico at Ponce prepares its students to practice as Physical Therapist Assistants under the supervision of a Physical Therapist to offer high quality physical therapy services based on scientific and clinical evidence.

The student must complete 72 credits over a two-year period to graduate. They must complete 3 clinical experiences in which they will execute different skills according to the level of practice. These internships must be carried out in different locations, which will require the student to be transported to other towns. Students are responsible for their own transportation to and from the clinical experience.

The graduate of the program will work as a Physical Therapist Assistant and together with the Physical Therapist is responsible for the care of the patient / client, following the established care procedures and observing the precautions in the application of therapeutic interventions. The Physical Therapist Assistant provides treatment interventions as delegated by the Physical Therapist that are part of the care plan developed by the Physical Therapist.

According to the description provided by the American Physical Therapy Association a Physical Therapist Assistant, performs interventions including, but not limited to therapeutic exercises, traction, massage, ultrasound, electrotherapy, balance and ambulation training, learning and motor development, and patient and family education. Interventions will often include the use of assisted equipment such as crutches, wheelchairs, orthoses, and prosthetics. An important component of interventions involves teaching patients appropriate injury prevention techniques and promoting health and well-being.

The Physical Therapist Assistant also documents information about the patient's response to treatment, including objective data that is part of the patient's medical record. The Physical Therapist Assistant is trained to respond to emergency situations in the clinical setting. In addition to patient/client care, they participate in activities related to billing and coding, quality control for risk management, and other administrative activities within the Department.

After graduation, candidates must pass the Puerto Rico revalidation exam and/or the NPTAE (National Physical Therapist Assistant Examination) to obtain the required license in PR and USA. The student is required to apply for credentials at the Board of Physical Therapy in order to be eligible for the NPTAE exam.

To keep their license active, the graduate must renew their license every three years. For this you must regularly participate in continuing education activities, including independent study activities.

The Physical Therapist Assistant works in various clinical settings including: private offices, public and private hospitals, rehabilitation centers, home health service programs (Home Care), industries, sports medicine, pediatric centers, geriatric centers, hospices, school programs and health promotion programs, among others.

#### Vision

The Associate Degree of Science in Physical Therapy will be a program widely recognized for its commitment to academic excellence and the scope of educational achievement and preparation of its graduates to enter the workforce. Graduates of our program will provide the highest level of physical therapy services to the community and will be the employees of choice for health care providers.

#### Mission

The Associate Degree in Physical Therapy Sciences at the University of Puerto Rico at Ponce prepares Physical Therapist Assistants with the competencies and leadership necessary to fulfill their roles and functions in a safe, legal, ethical, and effective manner in a global society, under the direction and supervision of the Physical Therapist. In keeping with the institutional mission, the program offers an excellent education, maintaining a comprehensive and holistic approach based on the appreciation of humanistic and ethical values within cultural differences. It fosters a lifelong learning process through a challenging environment where the student is guided in evidence-based learning and practices to better serve the community.

To fulfill this mission, the program has institutional support, accreditation from the Middle States Commission on Higher Education (MSCHE) of higher education and a highly qualified faculty involved in research, clinical practice and national and local professionals related to the practice of Physical Therapy.

#### **Philosophy**

The faculty will be a positive example for the benefit of students, other health providers, and the community. An exchange of affirmative attitudes among students, academic and clinical faculty, and other staff should be encouraged to achieve our philosophy, mission, and goals. The Associate Degree of Science Program in Physical Therapy strives to be an integral part in training its students so that they can be prepared to function as Physical Therapist Assistants under the direction and supervision of a Physical Therapist in Puerto Rico and elsewhere. Excellence in education will be the essential principle to achieve our purpose, in response to the inalienable right that every human being has for a quality education. The education offered will be holistic and humanistic in nature and will be characterized by a desire to serve and an understanding of the changing nature of the profession and health care in general, which will promote the sensitivity required to meet the needs of the population.

Our curriculum includes general education and specialized studies resulting in a comprehensive academic program. It promotes coordinated and sequential learning through two main components of academic and clinical experiences to develop students who are flexible and committed to a patient-centered approach to care. The curriculum gives students the opportunity to explore values, skills, personal and professional knowledge, and apply and integrate these with the search for clinical evidence.

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The faculty of the Associate Degree of Science in Physical Therapy will be a positive role model through service and leadership in the Physical Therapist profession to benefit students, other health care providers, and the community. They are also committed to the quality and effectiveness of teaching to provide the necessary educational experiences and entry-level skills that are competitive for the Physical Therapist profession and fit the demands of a changing healthcare environment.

#### Values

The Associate of Science Degree in Physical Therapy endorses the core values established and promoted by the American Physical Therapy Association. These main values are:

- commitment
- altruism
- compassion/care
- excellence
- integrity
- Professional duty
- Social responsibility

#### Goals

The goals are the means to fulfill the program's mission. The goals of the program are:

- 1. Admit and retain students who possess the academic and professional qualities necessary to achieve the mission of the program and to successfully complete it.
- 2. Graduate clinicians who possess skills from an entry-level Physical Therapist Assistant to work under the direction and supervision of a physical therapist in a variety of settings.
- 3. Prepare graduates to pass the revalidation exam of the Puerto Rico Physical Therapy Examination Board and/or the Federation of Physical Therapy Boards of the United States to obtain their professional license and work as a Physical Therapist's Assistant.
- 4. Graduate Physical Therapist Assistants who meet the needs of a changing society through different clinical scenarios at work.
- 5. Prepare Physical Therapist Assistants with the necessary competencies to fulfill their roles and functions of a contemporary practice in Puerto Rico and globally.
- 6. Prepare Physical Therapist Assistants with the essential knowledge to understand and work with cultural, social, economic, gender, race and belief differences and needs in a changing society within their scope of practice.
- 7. Disseminate information about the program and profession of Physical Therapy among the university community and external community.

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- 8. Maintain institutional support so that the program has the necessary resources to fulfill its mission.
- 9. Maintain an appropriate number of contracts with qualified clinical centers to provide the necessary clinical experiences to program students.
- 10. Provide varied clinical experiences in different clinical settings to enrich and develop students' clinical skills.
- 11. Maintain an ongoing assessment of all program components to promote an effective planning process.
- 12. Recruit and maintain an academic and clinical faculty with contemporary experience and practice in assigned teaching areas and with the professional credentials necessary to provide an education of excellence and be a role model.
- 13. Promote teaching personnel participation in academic activities, education services and professional development in Puerto Rico and other countries.
- 14. Development of the Clinical Faculty through an Improvement Plan offered by the institution.
- 15. The program will serve as a link between the institution and the external community to facilitate a lasting learning and integration of graduates in the labor field and in the development of activities related to community service and health promotion.

#### **Graduate Profile**

The profile of the graduate of the Program establishes that the graduate is qualified to:

- 1. Demonstrate knowledge and skills in the data collection process, implementation of the comprehensive treatment plan including appropriate modifications according to the patient's response, participation in delegated discharge planning under the appropriate direction and supervision of a Physical Therapist.
- 2. Demonstrate effective and appropriate written, verbal, and nonverbal communication with academic and clinical faculty, classmates, patients, and other health care professionals.
- 3. Demonstrate sensitivity to individual, psycho-social, economic, gender, race, belief and cultural differences in all aspects of Physical Therapy services.
- 4. Demonstrate professional behaviors to ensure ethical, safe and appropriate conduct in all interactions within the profession.
- 5. Demonstrate problem-solving, thinking and critical thinking skills to deliver safe, efficient and effective Physical Therapy interventions in different settings and to varied populations, under the direction and supervision of a Physical Therapist.

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- 6. Provide effective education regarding physical therapy services to patients, family members and other healthcare professionals.
- 7. Demonstrate accurate, logical, concise, on-time, and readable documentation skills that follow specific documentation guidelines and formats required by state practice regulations, practice scenarios, and other regulatory agencies.
- 8. Demonstrate social responsibility, teamwork skills, and leadership, including participation in community services, organizations, and activities.
- 9. Demonstrate a consistent commitment to the profession through regular participation in learning opportunities for continuing education, including independent study activities.
- 10. Demonstrate the ability to locate relevant information on physical therapy using technology and evidence the ability to read and apply literature related to the health area to promote an evidence-based practice.

#### ASSOCIATE DEGREE IN PHYSICAL THERAPY SCIENCES

#### STUDY PROGRAM

First Year			
First Se	mester		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	1037	Introduction to Physical Dysfunction***	4
TEFI	1016	Hospital Techniques***	2
TEFI	1017	Hospital Techniques Laboratory	0
MATE	3001	Introductory Mathematics I	3

Second Semester			Credits
INGL	3102	Basic English II	3
<b>INGL</b>	3114	Basic English Laboratory II	0
BIOL	1013	Human Anatomy and Physiology II***	4
BIOL	1014	Human Anatomy and Physiology II Laboratory	0
TEFI	1006	Thermotherapy***	4
TEFI	1007	Thermotherapy Laboratory	0
TEFI	1008	Massage***	2
TEFI	1009	Massage Laboratory	0
		Guided Elective (EDFI 3645: First Aid)	2
		Subtotal	15

**Subtotal** 

**Credits** 

19

#### **Summer**

TEFI 1015 Introduction to Clinical Experience\*\*\*

#### **Second Year**

1

First Semester		Credits	
<b>ESPA</b>	3101	Basic Spanish I	3
CISO	3121	Introduction to Social Sciences I**	3
<b>PSIC</b>	3025	Human Development	3
TFOC	1005	Functional Anatomy I***	3
TFOC	1008	Functional Anatomy Laboratory	0
TEFI	2001	Clinical Experience II***	2
TEFI	2005	Therapeutic Exercises***	4
TEFI	2006	Therapeutic Exercises Laboratory	0
		Subtotal	18

Second Semester			Credits
<b>ESPA</b>	3102	Basic Spanish II	3
CISO	3122	Introduction to Social Sciences II*	3
TEFI	1038	Psychosocial Dysfunction***	3
TEFI	2002	Clinical Experience III***	2
TEFI	2007	Functional Activities***	4
TEFI	2008	Functional Activities Laboratory	0
TEFI	2009	Physical Therapy Application in Physical	4
		Dysfunction***	
TEFI	2013	Physical Therapy Application in Physical	0
	2013	Dysfunction Laboratory	
		Subtotal	19

**Total of Credits: 72** 

### ASSOCIATE DEGREE IN ENGINEERING TECHNOLOGY

#### Vision and Mission of the Engineering Department

The **Vision** of the Engineering Department is to prepare the best industrial civil engineering technicians in Puerto Rico. These technicians will have an Associate Degree in Construction Technology and Industrial Technology.

The **Mission** of the Department of Engineering is to contribute to the social and economic development of the southwest region of Puerto Rico by offering undergraduate technical education in the engineering profession.

<sup>\*6</sup> credit courses CISO 3121-3122 can be substituted by the HUMA 3101-3102 courses.

<sup>\*\*\*</sup> Courses with BIOL, TEFI, and TFOC coding must be approved with a grade of C or higher. Certification 2000-2001-03

The Engineering Technology programs are accredited by the ABET Engineering Technology Accreditation Commission, who through a rigorous evaluation process shows that we meet the quality standards necessary to prepare the best graduates in the field of engineering. This agency accredits over 3,100 programs at more than 670 colleges and universities worldwide.

#### I. Academic Program Information

### Associate Degree in Civil Engineering Technology in Construction

The mission of the Civil Engineering Technology in Construction program is to develop engineering technicians with extensive knowledge of equipment and programs specialized in the area of material testing, cost estimation and surveying, so that they can provide the best technical support to civil engineers, architects and surveyors related to the construction industry.

#### **Program Objectives:**

Graduates of this program will have:

- 1. Knowledge in mathematics, science, surveying, and construction management with the necessary communication tools to work in the construction industry.
- 2. Knowledge and tools to carry out testing of building materials and costs estimate needed in the construction industry.
- 3. The ability to develop, use and interpret industry-related construction documents.
- 4. Knowledge of professional ethics, related to the discipline.

#### **Educational Objectives of the Program**

The educational objectives of the program are as follows and indicate that students:

- 1. Demonstrate they will have the knowledge and skills necessary to draw manually or with the use of computer programming (CAD) construction plans of buildings designed by engineers, architects and surveyors.
- 2. They will be able to apply mathematical and scientific principles conducive to solving technical problems in the field of technology in civil engineering.
- 3. They will demonstrate skills in identifying, formulating, and presenting creative solutions to a variety of technical problems encountered in the field of technology in civil engineering.
- 4. They will be able to interpret construction plans and documents.
- 5. They will have the necessary skills to prepare and carry out material testing, using current equipment and technology. They will be able to analyse the results and prepare technical reports.
- 6. They will be able to prepare construction cost estimates.
- 7. They will be able to use modern computer equipment to solve technical problems.
- 8. They will demonstrate general knowledge of various contemporary issues necessary to develop ethical and professional responsibility.
- 9. They will have the ability to work in a team and communicate effectively.
- 10. They will recognize the need for a continuous learning process.

11. They will be able to work as assistants to engineers, architects, and surveyors in professional companies or organizations.

## Study Program Civil Engineering Technology in Construction First Year

First Sem	nester	That I car	Credits	
<b>ESPA</b>	3101	Basic Spanish I	3	
INGL	3101	Basic English I	3	
INGL	3113	Basic English Laboratory I	0	
MATE	3171	Pre-Calculus I	3	
TECI	1005	Technical Drawing	3	
TECI	1006	Construction Material	3	
TECI	2049	Introduction to Computerized Systems	2	
		Subtotal	17	
Second Semester Credits				
Second S	emester		Credits	
Second S ESPA	emester 3102	Basic Spanish II	Credits 3	
		Basic Spanish II Basic English II		
ESPA	3102	<u>-</u>	3	
ESPA INGL	3102 3102	Basic English II	3 3	
ESPA INGL INGL	3102 3102 3114	Basic English II Basic English Laboratory II	3 3 0	
ESPA INGL INGL MATE	3102 3102 3114 3172	Basic English II Basic English Laboratory II Pre-Calculus II	3 3 0 3	
ESPA INGL INGL MATE TECI	3102 3102 3114 3172 1007	Basic English II Basic English Laboratory II Pre-Calculus II Architectural Drawing	3 3 0 3 3	

#### **Second Year**

First Semester			Credits
TECI	2005	Surveing I	3
TECI	2007	Costs Estimate	2
TECI	2035	Construction Management	4
TECI	2036	Statics and Resistance of Materials	5
TECI	2057	Basic AutoCad	2
SOCI	HUMA	Social-Humanities Elective	3
		Subtotal	19

**Subtotal** 

18

Second	Semester		Credits
TECI	2006	Surveing II	3
TECI	2008	Reinforced Concrete	3
TECI	2015	Structural Steel	3
TECI	2109	Practice in Technology in Civil Engineering	3
SOCI	HUMA	Social-Humanities Elective	3
		Subtotal	15

#### **TOTAL OF CREDITS: 69**

#### ASSOCIATE DEGREE CIVIL ENGINEERING TECHNOLOGY IN ARCHITECTONIC DELINEATION

The mission of the Civil Engineering Technology in Architectural Delineation program is to develop civil engineering technicians with extensive knowledge of equipment and programs specialized in the area of material testing, cost estimating, and architectural delineation and surveying, so that they can provide the best technical support to civil engineers and architects involved in the construction industry.

#### **Program Objectives**

Graduates of this program will have:

- 1. Knowledge in math, science, surveying and construction management with the necessary communication tools to work in the construction industry.
- 2. Knowledge and tools to carry out testing of construction materials and cost estimation needed in the construction industry.
- 3. The ability to develop, use, and interpret industry-related construction documents.
- 4. Knowledge of professional ethics, related to discipline.

#### **Educational Objectives of the Program**

The educational objectives of the program are as follows and indicate that students:

- 1. They will have the knowledge and skills necessary to draw manually or with the use of computer programming (CAD) construction plans of buildings designed by engineers, architects, and surveyors.
- 2. They will be able to apply mathematical and scientific principles conducive to solving technical problems in the field of technology in civil engineering.
- 3. They will demonstrate skills in identifying, formulating, and presenting creative solutions to a variety of technical problems encountered in the field of technology in civil engineering.
- 4. They will be able to interpret construction plans and documents.
- 5. They will have the necessary skills to prepare and carry out material testing, using current equipment and technology.
- 6. They will be able to analyze the results and prepare technical reports. They will be able to prepare construction cost estimates.
- 7. They will be able to use modern computer equipment to solve technical problems.
- 8. They will demonstrate general knowledge of various contemporary issues necessary to develop ethical and professional responsibility.
- 9. They will have the ability to work in a team and communicate effectively.
- 10. They will recognize the need for a continuous learning process.
- 11. They will be able to work as assistants to engineers, architects, and surveyors in professional companies or organizations.

#### **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 3171	Pre-Calculus I	3
TECI 1005	Technical Drawing	3
TECI 1006	Construction Material	3
TECI 2049	Introduction to Computerized Systems	2
TECI 2037	Materials and Construction Processes	3
	Subtotal	17

Second Semes	ter	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
TECI 1007	Architectural Drawing	3
FISI 1001	Technical Physics I	3
FISI 1003	Laboratory Technical Physics I	1
TECI 2012	Material Test	2
	Subtotal	18

#### **Second Year**

First Semester		<b>Credits</b>
TECI 2001	Architectural Delineation I	3
TECI 2005	Surveing I	3
TECI 2035	Construction Management	4
TECI 2036	Statics and Resistance of Materials	5
	Social-Humanities Elective	3
	Subtotal	18

Second Semester			<b>Credits</b>
TECI	2002	Architectural Delineation II	3
TECI	2007	Costs Estimate	2
TECI	2008	Reinforced Concrete	3
TECI	2015	Structural Steel	3
TECI	2109	Practice in Technology in Civil	3
		Engineering	
		Social-Humanities Elective	3
		Subtotal	17

#### **TOTAL OF CREDITS:70**

### ASSOCIATE DEGREE IN INDUSTRIAL ENGINEERING TECHNOLOGY

The mission of the Industrial Engineering Technology program is to develop excellent industrial engineering technicians who provide support to industrial engineers in any enterprise, business, manufacturing, or service industry.

#### **Program Objectives**

- 1. Knowledge regarding production factors and related topics, recommended in the effective solution of manufacturing or service operations.
- 2. Knowledge and skills to recommend alternatives that reduce costs and improve production quality and efficiency in manufacturing and service operations.
- 3. Ability to contribute to ethical and humane conduct to protect human resources with appropriate industrial safety practices.
- 4. Promote continuous learning on global issues that may impact manufacturing or service operations.
- 5. Carry out a process of continuous improvement of the academic program through the evaluation process.
- 6. To provide the best technical education in the profession to our students.
- 7. Carry out professional improvement activities that stimulate the self-learning of teachers and students.

#### **Educational Obejectives of the Program**

The educational objectives of the program are as follows and indicate that students:

- 1. They will apply modern knowledge, techniques, skills, and equipment of the discipline of Industrial Technology to specific activities in production or service.
- 2. They will apply knowledge of mathematics, science, and engineering to specific technical problems of engineering in manufacturing or service which require limited applications of principles, but relevant practical knowledge.
- 3. They will have the ability to carry out measurements and calculations to analyze problems and interpret circumstances that arise in manufacturing.
- 4. They will have the ability to identify, analyze, and solve technological problems in engineering with little information available.
- 5. They will have the ability to communicate effectively in technology and engineering activities with little information available.
- 6. They will develop the ability to carry out a continuous learning process.
- 7. They will develop a commitment to carry out their professional responsibilities within an ethical context and respect diversity.
- 8. You will develop a commitment to quality, continuous improvement, and timeliness over time.

#### STUDY PROGRAM

#### First Year

First Se	emester		Credits
<b>INGL</b>	3101	Basic English I	3
<b>INGL</b>	3113	Basic English Laboratory I	0
MATE	3171	Pre-Calculus I	3
<b>ESPA</b>	3101	Basic Spanish I	3
TIIN	1008	Engineering Materials	3
TIIN	1005	Industrial Organization	3
TECI	2049	Introduction to Computerized	2
		Systems	
		Subtotal	17
Second Semester			Credits
INGL	3102	Basic English II	3

#### Basic English Laboratory II 0 **INGL** 3114 Pre-Calculus II 3 MATE 3172 3 **Elementary Statistics** MATE 3015 Basic Spanish II 3 **ESPA** 3102 **Technical Drawing** 3 **TECI** 1005 **Industrial Safety** 3 TIIN 1015 **Subtotal** 18

#### **Second Year**

First Se	emester		Credits
TIIN	2009	Quality Control	3
TIIN	2010	Methods Design	4
TIIN	2020	Methods Design Practice	0
TIIN	2016	Engineering Accounting	4
TIIN	2026	<b>Engineering Accounting Practice</b>	0
QUIM	3141	Principles of General Chemestry,	4
		Organic Chemestry and Biology	
TECI	2057	Basic AutoCAD	2
		Subtotal	17

<b>Second Semester</b>			<b>Credits</b>
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
		Social-Humanities Elective	3
		Social-Humanities Elective	3
		Subtotal	19

#### **TOTAL OF CREDITS: 71**

\*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)

## **Baccalaureates**



#### IX BACCALAUREATES

#### **BUSINESS ADMINISTRATION PROGRAM**

The Bachelor of Business Administration Program is designed to develop professionals specialized in the areas of Accounting, Management, Marketing and Finance. Students in the program could choose to complete two concentrations or a minor concentration different from their major area of specialty. The baccalaureate promotes multidisciplinary management skills in ten main components: Management, Accounting, Economics, Statistics, Ethics, Finance, Globalization, Commercial Law, Marketing and Information Technology. Graduates of the program will be able to practice, according to their specialty, as executives capable of adding value to their organizations, undertaking and managing businesses contributing positively to socioeconomic development in a global environment. The Department of Business Administration, with the purpose of reaffirming academic excellence, worked to obtain professional accreditation from the Accreditation Council for Business Schools and Programs (ACBSP). This voluntary process and continuous improvement is by which the quality and fulfillment of the purposes and goals of an academic program of a higher education entity is recognized.

#### Vision

"The Business Administration program will stand out for the innovation of its academic offerings, face-to-face and distance, using advanced instructional technologies to train professionals of excellence in Puerto Rico and internationally."

#### Mission

"To train professionals capable of performing effectively as executives, managers, entrepreneurs and leaders committed to society in a global environment through a comprehensive education, with ethical values and practical and technical knowledge in business administration."

#### Goals

- 1. Educate students so that they can fulfill the professional, ethical and social responsibilities related to the administration of an organization in a global context.
- 2. Provide an excellent teaching with a highly qualified faculty.
- 3. Provide a university education where practical and technical teaching in the disciplines of business administration is complemented by the arts, culture and other sciences.
- 4. Establish links with the business community to facilitate the learning and integration of students into the labor field.
- 5. Encourage research and continuous student learning.
- 6. Encourage learning through community service to develop leaders, entrepreneurs and citizens engaged in society.
- 7. Offer extracurricular activities that stimulate professional improvement using as a resource our student associations, conferences, congresses, internships, internships, study trips and specialized projects, among others.
- 8. To offer a state-of-the-art academic program backed by an internationally recognized, professional accreditation specializing in business administration.

9. Foster a business entrepreneurship mindset that allows students to diversify their employment opportunities.

#### **Program Objectives are:**

- o Demonstrate competence in the primary functions of running a business; Marketing, accounting, finance, commercial law, economics, management, ethics, information systems, statistics and global markets.
- o Apply international Business concepts in the creation of a viable export plan.
- o Apply oral and written communication skills in the business environment (Spanish).
- o Apply oral and written communication skills in the business environment (English).
- o Determine ethical and socially responsible solutions to solve ethical dilemmas.
- Develop teamwork skills.
- o Recognize and understand the fundamentals of organizational behavior.
- o Compare and justify business solutions through critical thinking.
- o Demonstrate research competencies in business using information technologies.

#### **Graduate Profile**

- 1. Apply the principles and concepts necessary for the effective management of an organization in a global environment.
- 2. Will communicate effectively in Spanish and English.
- 3. Apply ethical principles and values, with a sense of social responsibility, in decision-making processes.
- 4. Work effectively as a team, recognizing the diversity of the human being and the fundamentals of organizational behavior.
- 5. Apply qualitative and quantitative skills in the management of an organization.
- 6. Will possess competences of research and in the use of information technologies.

#### **Statement of Values**

The values of integrity, responsibility, fairness, respect, and trust are the guide for faculty, students, and non-faculty to fulfill the Mission of the Department of Business Administration. These values will unify the department in the pursuit of academic excellence, goals and purposes within a framework of personal and professional responsibilities based on ethicalsocial conduct.

Integrity. Act in an upright, probate, and blameless manner in the fulfillment of duties. Be committed to seeking the truth, avoid situations involving potential conflicts of interest, and be a model of decency and decorum for the community.

*Responsibility*. Be committed to faithfully fulfilling obligations diligently and promptly. This value entails a commitment to providing an effective service to ensure that resources are used in the best possible way, informed decisions are made, and actions are taken accountable. Comprehensive student service is a priority responsibility.

*Justice*. Show objectivity and impartiality when making decisions. They will be guided by duty or conscience in the application of rules and regulations that affect academic and administrative activities.

In the granting of promotions, evaluations and qualifications, discrimination will be made on the basis of intellectual and professional merit and not on subjective factors.

*Respect.* Treat all people with dignity and protect their rights. It will strive to foster an environment of mutual respect, tolerance for diversity of opinions, participation in deliberative processes and differences of opinion. This is essential to nurture the creative expression that characterizes the university.

*Confidence*. Act firmly and confidently in all communications and actions. The actions will be characterized by transparency, fairness and accuracy in the processes. The right to privacy will be respected and fostered among all components.

#### **Accounting Concentration**

The concentration in Accounting provides students with the knowledge and skills necessary to perform in a high-demand career in public accounting, private business, and government. As an accounting professional, a rapidly growing field, the employment options you will have will be varied, almost limitless. Also, our curriculum is designed to help you obtain your CPA license and other professional certifications; and to continue with a master's degree or study law.

#### **Concentration in Management**

The concentration in Management is designed so that the graduate can work in a human resources department or in a managerial position in both private and public companies. In addition, it prepares graduates with the tools and knowledge necessary to run their own business. Its main focus is on the area of human resources in which the application of the following practices is emphasized: supervision, compensation, labor relations, labor law, training, international human resources among others.

#### **Concentration in Marketing**

The Marketing concentration prepares professionals trained to manage the processes of creating and communicating value for an organization's customers with particular emphasis on the areas of Advertising, Consumer Behavior, Marketing Research, and Trade Brand Development.

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#### **Concentration in Finance**

Concentration in finance prepares the graduate to perform effectively in the financial markets, corporations and/or government, occupying positions that require the management of economic resources. The Finance graduate will be able to work as: Bank Officer, Financial Institutions Manager, Securities Broker, Real Estate and Insurance, Personal and Corporate Financial Planner, among other related areas

In April of 2022, the Office of Registration and Licensing of Educational Institutions of the Department of State of Puerto Rico approved the amendment to the Renewal License of the University of Puerto Rico in Ponce to offer in the modality of distance learning the programs of Bachelor Degree in Business Administration with a concentration in Management and Bachelor Degree with a concentration in Marketing.

## BACHELOR OF BUSINESS ADMINISTRATION (ADEM) CONCENTRATION IN ACCOUNTING

#### **CLASS PROGRAM**

		riist i cai	
First Sem	ester		Credits
INGL	3101	Basic English I	2
o INGL	3103	Intermediate English I	3
INGL	3113	Basic English Lab I	0
HUMA	3101	Introduction Western Culture I	3
o CISO	3121	Introduction to Social Science I	2
SICI	3211	Fund. of Information Systems	3
CONT	3005	Introduction to Accounting Fund. I	4
ADMI	3005	Management Theory	3
		Subtotal	16
Second Se	ememste	er	Credits
INGL	3102	Basic English II	
o INGL	3104	Intermediate English II	3
INGL	3113	Basic English Lab II	0
HUMA	3102	Introduction Western Culture II	3
o CISO	3122	Introduction to Social Science II	3
MERC	3115	Principles of Marketing	3
CONT	3006	Introduction to Accounting Fund. II	4
CIBI	3001	Fundamentals of Biology I	3
o CIFI	3001	Physical Science	16
		Subtotal	16
		Second Year	
First Sem	ester		Credits
<b>ESPA</b>	3101	Basic Spanish I	3
MATE	3011	Quantitative Methods I*	3
ECON	3021	Principles of Economics I	3
CONT	3007	Intermediate Accounting I	4
COM	3007	Free Elective	3
		Subtotal	16
C1 C-			C 1:4
Second Se		Pagia Chanish II	Credits
ESPA	3102	Basic Spanish II	3
REHU	4408	Organizational Conduct	3
MATE	3012	Quantitative Methods II Business Statistics I	3 3
ESTA	3001 3022		3
ECON		Principles of Economics II	3 4
CONT	3008	Intermediate Accounting II	
		Subtotal	19

\*Prerequisite: 650 academic achievement in mathematics at  $College\ Board$  or MATE 3001

T	hind	I Voor	
	nırc	ı year	

First Sen	nester			Credits
COEM	3001	<b>Business Communication</b>		3
<b>ESTA</b>	3002	<b>Business Statistics II</b>		3
FINA	3006	Commercial Finance		3
CONT	3025	Cost Accounting I		4
CONT	4039	State Contributions		4
o CONT	4038	Federal Contributions		4
			Subtotal	<del></del>

Second Semester			Credits
ADMI	3100	New Business Development	3
INCO	3005	Business English I	3
FINA	3007	Currency and Banking	4
CONT	4017	Intervention of Accounts and Systems	3
<b>ADMI</b>	4225	International Business Principles	3
		Subtotal	16

#### Fourth Year

First Semester			Credits
REHU	4005	Business Ethics	3
CONT	4029	International Accounting	3
o CONT	4037	Accounting Information Systems	3
INGL	3191	Int. Verbal Commnication	3
		Concentration Elective	3 ó 4
		Free Elective	3
		Subtotal	15 or 16

Second S	emester		Credits
<b>DEME</b>	4005	Derecho Mercantil	4
ADMI	4007	Gerencia Estratégica	3
		Electiva de Concentración	3 ó 4
		Electiva Libre	3
		Electiva Libre	3
		Subtotal	16 or 17

**Total of Credits: 131-133** 

### **CONCENTRATION COURSES**

## **Concentration in Accounting**

You will take eight (8) courses to complete the concentration requirements. Of these, six (6) will be required, and two (2) concentration-oriented electives.

		Courses Requirement (6)	Credits
CONT	3007	Intermediate Accounting I	4
CONT	3008	Intermediate Accounting II	4
CONT	3025	Cost Accounting I	4
CONT	4017	Intervention of Accounts and Systems	3
CONT o CONT	4038 4039	Federal Contributions State Contributions	4
CONT o CONT	4029 4037	International Accounting Accounting Information Systems	3
		Subtotal	22
		Concentration Oriented Electives (2) (Minimum 6 credits)	Créditos
CONT	3035	Advanced Accounting	4
CONT	4005	Cost Accounting II	4
CONT	4016	Developments Rec. in Accounting	3
CONT	4026	Internship in Accounting	4
CONT <sup>7</sup>	4097	Professional Accounting Seminar	1
CONT	4049	Principles for Examining Fraud	4
CONT o CONT	4029 4037	International Accounting Accounting Information Systems	3
CONT o CONT	4038 4039	Federal Contributions State Contributions	4
		Subtotal	6-8
		To	tal 28-30

<sup>7</sup> This course will not be counted as part of the eight (8) concentration courses.

Catalog 2022-2026

## BACHELOR OF BUSINESS ADMINISTRATION (ADEM) CONCENTRATION IN MANAGEMENT

## **CLASS PROGRAM**

First	Year
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		riist i cai	
First Sem			Credits
INGL	3101	Basic Eng. I	3
o INGL	3103	Intermediate Eng. I	J
INGL	3113	Basic Eng. Lab I	0
HUMA	3101	Introduction to Western Culture I	3
o CISO	3121	Introduction to Social Science I	
ESPA	3101	Basic Spanish I	3
ADMI	3005	Management Theory	3
SICI	3211	Fund.of Information Systems	3
		Subtotal	15
Second S	aa-4		Credits
INGL	3102	Basic Eng. II	Creuits
o INGL	3102	Intermediate Eng II	3
		· ·	•
INGL	3114	Basic Eng. Lab II	0
HUMA	3102	Introduction to Western Culture II	3
o CISO	3122	Introduction to Social Science II	2
ESPA	3102	Basic Spanishásico II	3 3
MERC CIBI	3115 3001	Marketing Principles	3
o CIFI	3001	Fundamentals of Biology I Physical sciences	3
0 CH1	3001	Subtotal	15
		Subtom	10
		Second Year	
First Sem	nester		Credits
COEM	3001	Business Communication I	3
<b>ECON</b>	3021	Economic Principles I	3
REHU	4405	Human Rec. Management	3
CONT	3005	Int. Fundamentals of Accounting I	4
MATE	3011	Quantitative Methods I*	3
		Subtotal	16
		2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	_ •
Second S	emester		Credits
REHU	4408	Organizational Conduct	3
CONT	3006	Int. Accounting Fundamental II	4
MATE	3012	Quantitative Methods II	3
<b>ECON</b>	3022	Economic Principles II	3
		Free Elective	3
		Subtotal	16

# \*Prerequisite: 650 academic achievement in mathematics on College Board or MATE 3001

## **Third Year**

First Se	mester	w	Credits
<b>ESTA</b>	3001	Business Statistics I	3
ADMI	4225	International Business Principles	3
FINA	3006	Commercial Finance	3
REHU	4407	Compensation Sytems	3
<b>ADMI</b>	3100	Development of new businesses	3
INCO	3005	Business Eng. I	3
		Subtotal	18
Second	Semester		<b>Credits</b>
<b>ESTA</b>	3002	Business Statistics II	3
<b>INGL</b>	3191	Int. Verbal Communication	3
<b>FINA</b>	3007	Currency and Banking	4
REHU	4419	Labor Legislation and Jurisprudence	3
		Concentration Elective	3
		Subtotal	16
		Fourth Year	
First Se	mester		Credits
GERE	4027	Supervisory Principles	3

First Semester			Credits
<b>GERE</b>	4027	Supervisory Principles	3
<b>REHU</b>	4005	Business Ethics	3
		Concentration Elective	3
		Free Elective	3
		Free Elective	3
		Subtotal	15

Second Semester			Credits
<b>DEME</b>	4005	Commercial law	4
<b>ADMI</b>	4007	Strategic Management	3
		Concentration Elective	3
		Free Elective	3
		Subtotal	13

**Total of Credits: 124** 

## **CONCENTRATION COURSES Concentration in Management**

You will take seven (7) courses to complete the requirements of the Concentration. Of these, four (4) will be required and three (3) concentration-oriented electives.

		<b>Courses Requirement (4)</b>	Credits
REHU	4405	Human Resources Management	3
REHU	4407	Compensation Systems	3
REHU	4419	Labor Legislation and Jurisprudence	3
GERE	4027	Supervisory Principles	3
		Subtotal	12
		Concentration-oriented electives (3)	
GERP	2005	Production Management	3
REHU	4437	Training and Development	3
o REHU	4435	International Management of Hum.Res.	3
REHU	4406	Labor-Management Relations	3
REHU	4436	Employee Reclutement and Selection	3
REHU	4426	Collective Bargaining	3
REHU	4450	Int. Management Practice	3
PSIC	3116	Industrial Psychology	3
		Subtotal	9
		<b>Total Credits</b>	21

## BACHELOR OF BUSINESS ADMINISTRATION (ADEM) CONCENTRATION IN MARKETING

#### **CLASS PROGAM**

#### First Year

First Sem	ester		Credits
INGL	3101	Basic English I	3
o INGL	3103	Intermediate Eng. I	3
<b>INGL</b>	3113	Basic Eng. Lab I	0
HUMA	3101	Introduction to Western Culture I	3
o CISO	3121	Introduction to Social Science I	3
<b>ESPA</b>	3101	Basic Spanish I	3
ADMI	3005	Management Theory	3
SICI	3211	Fund. Of Information Systems	3
		Subtotal	15

Second Semester			Credits
INGL	3102	Basic Eng. II	2
o INGL	3104	Intermediate Eng. II	3
INGL	3114	Basic Eng. Lab II	0
HUMA	3102	Introduction to Western Culture II	2
o CISO	3122	Introduction to Social Science II	3
<b>ESPA</b>	3102	Basic Spanish II	3
<b>MERC</b>	3115	Marketing Principles	3
CIBI	3001	Fundamentals of Biology I	3
o CIFI	3001	Physical Science	
		Subtotal	15

## **Second Year**

First Semester			<b>Credits</b>
COEM	3001	Business Communication I	3
<b>ECON</b>	3021	Principles of Economics I	3
CONT	3005	Int. Account Fundamentals I	4
<b>MATE</b>	3011	Quantitative Methods I*	3
<b>MERC</b>	4027	Advertisements	3
		Subtotal	16

Second Semester			Credits
<b>ECON</b>	3022	Principles of Economics II	3
REHU	4408	Organizational Fundamentals	3
CONT	3006	Int. Accounting Fundamentals II	4
<b>MATE</b>	3012	Quantitative Methods II	3
		Free Elective	3
		Subtotal	16

<sup>\*</sup>Prerequisite: 650 academic achievement in mathematics on  $College\ Board$  or MATE 3001

## **Third Year**

First Semester			Credits
INCO	3005	Business Eng. I	3
<b>ESTA</b>	3001	Business Statistics I	3
<b>FINA</b>	3006	Commercial Finance	3
<b>MERC</b>	4219	Intermediate Marketing	3
<b>ADMI</b>	3100	New Business Development	3
		Concenttration Elective	3
		Subtotal	18

Second Semester			Créditos
<b>INGL</b>	3191	Int. Verbal Communication	3
<b>ESTA</b>	3002	Business Statistics II	3
FINA	FINA 3007 Currency and Banking		4
<b>ADMI</b>	4225	International Business Principles	3
		Concentration Elective	3
		Subtotal	16

#### Fourth Year

First Ser	nester		Créditos
REHU	4005	Business Ethics	3
<b>MERC</b>	4007	Marketing Investigation	3
		Concentration Elective	3
		Free Elective	3
		Free Elective	3
		Subtotal	15
Second S	Semester		
<b>DEME</b>	4005	Commercial Law	4
<b>MERC</b>	4217	Consumer Conduct	3
<b>ADMI</b>	4007	Gerencia Estratégica	3
		Electiva Libre	3
		Subtotal	13

**Total of Credits: 124** 

## **CONCENTRATION COURSES Marketing Concentration**

You will take seven (7) courses to complete the requirements of the Concentration. Of these, four (4) will be required and three (3) concentration electives.

MERC MERC MERC MERC		Required Course (4) Marketing Investigation Publicity Intermediate Marketing Consumer Conduct Subtotal	Credits  3  3  3  12
		Sustour	12
		<b>Electives Directed to Concentration (3)</b>	
MERC	3215	Electronic Marketing	3
<b>MERC</b>	4130	Promotion Management	3
<b>MERC</b>	4026	Physical Distribution Logistics	3
<b>MERC</b>	4119	Service Marketing	3
<b>MERC</b>	4215	Retail Sales Management	3
<b>MERC</b>	4036	Public Relations	3
<b>MERC</b>	4005	International Marketing	3
<b>MERC</b>	4216	Slles Principles and Practice	3
<b>MERC</b>	4235	Marketing Internship	3
<b>ADMI</b>	4035	Small Business Administration	3
		Subtotal	9
		Total of Credits: 21	

## BACHELOR OF BUSINESS ADMINISTRATION (ADEM) CONCENTRATION IN FINANCE CLASS PROGRAM

First Year

**Credits** 

First Semester

rnst seme			Credits
INGL	3101	Basic Eng. I	3
o INGL	3103	Intermediate Eng. I	3
INGL	3113	Basic Eng. Lab I	0
HUMA	3101	Introduction to Western Culture I	2
o CISO	3121	Introduction to Social Science I	3
SICI	3211	Int. Information Systems	3
CONT	3005	Int Accounting Fundamental I	4
ADMI	3005	Management Theory	3
		Subtotal	16
Second Se	mester		Credits
INGL	3102	Basic Eng. II	2
o INGL	3104	Intermediate Eng, II	3
INGL	3114	Bas. Eng. Lab II	0
HUMA	3102	Introduction to Western Culture II	2
o CISO	3122	Introduction to Social Science II	3
CIBI	3001	Fundamentals of Biology I	2
o CIFI	3001	Physical Science	3
CONT	3006	Int. Fundamentals of Accounting II	4
MERC	3115	Principles of Marketing	3
		Subtotal	16
		Second Year	
First Semo	ester		Credits
ESPA	3101	Basic Spanish I	3
REHU	4408	Organizational Conduct	3
MATE	3011	Quantitative Methods I*	
<b>ECON</b>	3021	Principles of Economics I	3 3
FINA	3006	Commercial Finance	3
		Subtotal	15
Coop1 C	o a t		Cro 3:4-
Second Se		D:- C:-1. II	Credits
ESPA	3102	Basic Spanish II Advanced Finance	3
FINA	4025		3
MATE	3012	Quantitative Methods II	3
ESTA	3001	Business Statistics I Free Elective	3 3 3
		Subtotal	15

# \*Prerequisite: 650 academic achievement in mathematics on *College Board* or MATE 3001

Boura of f	VIIII JOV	<i>y</i> 1	
		Third Year	
First Sem	ester		Credits
COEM	3001	Business Communicationmpresarial I	3
<b>ESTA</b>	3002	Business Statistics II	3
FINA	3007	Currency and Banking	4
FINA	4037	Investments	3
<b>ECON</b>	3022	Principles of Economic II	3
INCO	3005	Business English I	3
		Subtotal	19
Second Y	ear		Credits
ADMI	3100	Development of New Businesses	3
INGL	3191	Int. Verbal Communication	3
ADMI	4225	Principles of International Businesses	3
		Concentration Elective	3
		Concentration Elective	3
		Subtotal	15
		Fourth Year	
First Sem	ester		Credits
REHU	4005	Business Ethics	3
<b>ECON</b>	4125	Management Economics	3
		Concentration Elective	3
		Free Elective	3
		Free Elective	3
		Subtotal	15
Segundo S	Semestre		Créditos
DEME	4005	Commercial Law	4
FINA	4050	Financial Markets	3
ADMI	4007	Management Strategies	3
		Free Elective	3
		Q 1 1	4.2

**TOTAL CREDITS: 124** 

**Subtotal** 

13

#### **CONCENTRATION COURSES**

## **Concentration in Finance**

You will take seven (7) courses to complete the Concentration requirements. Of these, four (4) will be required and three (3) concentration electives.

		Required Courses (4)	Credits
FINA	4037	Investments	3
<b>ECON</b>	4125	Managerial Economics	3
FINA	4025	Advanced Finance	3
FINA	4050	Financial Markets	3
		Subtotal	12
		<b>Concentration Oriented Electives</b>	
		(3)	
FINA	3005	Introduction to Insurance	3
FINA	4009	Credit and Collection	3
FINA	4991	Educational Coop. Experience	3
		(practice)	
FINA	4015	Banking Administration	3
FINA	4016	Real Estate	3
FINA	4020	International Finances	3
BASE	2007	Analysis of Financial Statements	3
FINA	4039	Public finance	3
		Subtotal	9

1	'otal	credits	2	1

	Total of Credits
Management	125
Marketing	125
Finances	125
Accounting	132-134**

Note: The specific distribution of each concentration is available in the Department and on the website.

## BUSINESS ADMINISTRATION CURRICULAR SEQUENCES: DOUBLE MAJOR AND MINOR CONCENTRATIONS IN ACCOUNTING, MANAGEMENT, MARKETING, AND FINANCE

## REQUIREMENTS

- Be an active student and admitted to the Bachelor of Business Administration Program.
- The student must have a minimum of 30 approved credits and an average greater than 2.00.
- Not be on probation
- Be within 50% of the academic program. Students who have more than 50% approved, must obtain authorization from the Dean of Academic Affairs.

Note: Additional concentrations extending the graduation period to more than 6 years from program entry will not be approved.

• The interested student must fill out the form provided by the Registrar's Office and this must be duly approved by the Director of the Department, and the Dean of Academic Affairs.

### THE COURSES REQUIRED FOR THE DUAL CONCENTRATION ARE:

#### **Additional Concentration in Accounting**

CONT 3007	(CONT 3006) <sup>+</sup>	Intermediate Accounting I	4 crs.
CONT 3008	(CONT 3007) <sup>+</sup>	Intermediate Accounting II	4 crs.
CONT 3025	(CONT 3008) <sup>+</sup>	Cost Accounting I	4 crs.
CONT 4039 ó	(CONT 3006) <sup>+</sup>	State Income Tax o	4 crs.
CONT 4038		Federal Income Tax	4 CIS.
CONT 4017	(CONT 3008) <sup>+</sup>	Intervention of Accounts and Systems	3 crs.
CONT 4029 ó	(CONT 3008) <sup>+</sup>	International Accounting or	3 crs.
CONT 4037		Accounting Information System	5 CIS.
CONT 4xxx		Concentration Elective*	3 ó 4 crs.
CONT 4xxx		Concentration Elective *	3 ó 4 crs.
Total créditos			28-30

<sup>\*</sup>Concentration electives, as they appear in the curricula. + Pre-requisites

	Additional Co	oncentration in Finance	
FINA 4025	(ECON 3022, CONT	Advanced Finance	3 crs.
3006, FINA 30	006)+		
FINA 4037	(FINA 3006) <sup>+</sup>	Investments	3 crs.
FINA 4050	(FINA 3007) <sup>+</sup>	Financial Markets	3 crs.
ECON 4125 3002)+	(ECON 3022, ESTA	Managerial Economics	3 crs.
,		Concentration Elective*	3 crs.
		Concentration Elective *	3 crs.
		Concentration Elective *	3 crs.
<b>Total credits</b>			21
	Additional Cons	entration in Management	
REHU 4405	(ADMI 3005) <sup>+</sup>	entration in Management  Human Resources Management	3 crs.
	(ADMI 3005) (ADMI 3005, REHU		3 crs.
REHU 4407 4405) <sup>+</sup>	•	Compensation Systems	
REHU 4419 4406) <sup>+</sup>	(ADMI 3005, REHU	Labor Legislation and Jurisprudence	3 crs.
<b>GERE 4027</b>		Supervisory Principles	3 crs.
		Concentration Elective*	3 crs.
		Concentration Elective *	3 crs.
		Concentration Elective *	3 crs.
<b>Total credits</b>			21
	Additional Can	centration in Marketing	
MERC 4007	(MERC 3115) <sup>+</sup>	Marketing Investigation	3 crs.
MERC 4007 MERC 4027	(MERC 3115) <sup>+</sup>	Advertistments	3 crs.
MERC 4027 MERC 4217	(MERC 3115) <sup>+</sup>	Consumer Conduct	3 crs.
MERC 4217 MERC 4219	(MERC 3115) <sup>+</sup>	Intermediate Marketing	3 crs.
WIERC 4219	(MERC 3113)	Concentration Elective*	3 crs.
		Concentration Elective *	_
		Concentration Elective *	_
Total credits		Concentration Elective	3 crs. <b>21</b>
	on alastivas, as they appear in t	ha gurrianta + Dra ragnicitas	
Concentration	on electives, as they appear in t	nie curricula. Fre-requisites	
	~	N MINOR CONCENTRATIONS: in Accounting	
CONT 3007	(CONT 3006)+	Intermediate Accounting I	4 crs.
CONT 3007	(CONT 3000)+ (CONT 3007)+	Intermediate Accounting I	4 crs.
CONT 3008 CONT 3025	(CONT 3007)+ (CONT 3008)+	Cost Accounting I	4 crs.
CONT 4017	(CONT 3008)+	Intervention of Accounts and Systems	4 cis. 3 crs.
Total créditos	` '	mervention of Accounts and Systems	15
		entration in Finance	_
FINA 4025	(ECON 3022, CONT 3006,	Advanced Commercial Finance	3 crs.
FINA 3006)+			
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FINA 4037	(FINA 3006)+	Investments	3 crs.
FINA 4050	(FINA 3007)+	Financial Markets	3 crs.
ECON 4125	(ECON 3022, ESTA 3002)+	Managerial Economics	3 crs.
Total créditos		_	12

<sup>+</sup> Pre-requisitos

#### Concentración Menor en Gerencia

<b>REHU 4405</b>	(ADMI 3005)+	Human Resources Management	3 crs.
<b>REHU 4407</b>	(ADMI 3005, REHU 4405)+	Compensation Systems	3 crs.
<b>REHU 4419</b>	(ADMI 3005)+	Labor Legislation and Jurisprudence	3 crs.
<b>GERE 4027</b>		Supervisory Principles	3 crs.
Total créditos	S		12

### **Minor Concentration in Marketing**

MERC 4007	(MERC 3115)+	Marketing Investigation	3 crs.
MERC 4027	(MERC 3115)+	Advertistment	3 crs.
MERC 4217	(MERC 3115)+	Consumer Conduct	3 crs.
MERC 4219	(MERC 3115)+	Intermediate Marketing	3 crs.
Total créditos			12

<sup>&</sup>lt;sup>+</sup> Prerequisites

#### MINOR CONCENTRATION IN BUSINESS DEVELOPMENT

#### **REQUIREMENTS**:

- Belong to a baccalaureate program that is completed at the University of Puerto Rico in Ponce.
- Have a minimum of 30 approved credits and an average greater than 2.00.
- Not be on probation.
- The student must be within 50% of the academic program. (If you do not meet this requirement, you must obtain approval from the academic advisor showing that you can complete the sequence in 6 years.).
- Students who have more than 50% approved, must obtain authorization from the Dean of Academic Affairs.
- The interested student must complete the application provided by the Registrar's Office and it must be duly approved by the Director of the Department, and the Dean of Academic Affairs.

COURSES REQUIRED IN THE MINOR CONCENTRATION IN BUSINESS DEVELOPMENT		
CODE	COURSE TITLE	CREDITS
ADMI 3100	New Business Development	3
ADMI 3150	Business Plan Development	3
ADMI 3155	Creativity and Business Innovation	3
ADMI 4035	Small Business Administration	3

#### COMPUTER SCIENCE

#### BACHELOR OF SCIENCE IN SYSTEMS COMPUTERIZED INFORMATION

The Bachelor of Science in Computer Information Systems program provides responsible and ethical professionals to successfully perform as analysts and designers of information systems. Graduates will have the ability to evaluate, propose and implement comprehensive and efficient solutions to the information systems problems of organizations through the appropriate use of available and emerging computer technologies.

The Bachelor of Sciences in Computerized Information Systems program is accredited by the Computer Accreditation Commission of ABET, <a href="https://www.abet.org">https://www.abet.org</a>, under the General Criteria and Program Criteria for Information Systems and Similarly Named Computing Programs.

#### Vision

"To be the Computer Information Systems Science program that best develops the student's potential to be a citizen who contributes to the well-being of the country."

#### Mission

"To train students to be responsible, ethical, and successful professionals in the discipline of Information Systems."

#### Goals

The Bachelor of Science in Computer Information Systems at the University of Puerto Rico at Ponce pursues the following goals:

- 1. To offer a Bachelor of Science in Computer Information Systems by providing a quality service in order to facilitate students to obtain an academic degree that allows them to perform successfully in the area of Information Systems.
- 2. Promote the recruitment and retention of competent, up-to-date faculty committed to the full development of their abilities and skills.
- 3. Provide facilities, technological tools, and services necessary to foster an optimal environment for teaching, learning, and research.
- 4. Promote the active participation of all sectors of the department and society in the review, evaluation and continuous improvement of the program to temper it to current needs.

#### **Program Objectives are:**

1. Our graduates will demonstrate the skills and knowledge necessary for them to perform adequately as information systems professionals.

- 2. Our graduates will participate in professional development activities to stay up-to-date in their area.
- 3. Our graduates will demonstrate ethical behavior so that they can be responsible professionals in their work.
- 4. Our graduates will have the necessary skills for teamwork and communicate effectively.

#### **Graduate Profile**

The graduate student of the Computer Information Systems Science Program will demonstrate that they possess the following competencies:

- 1. Analyze a complex computer problem and apply the principles of computer science and other relevant disciplines to identify solutions.
- 2. Design, implement, and evaluate an IT solution to meet a given set of computer requirements in the context of the program discipline.
- 3. Communicate effectively in a variety of professional contexts.
- 4. Recognize professional responsibilities and make informed judgments in computer practice based on legal and ethical principles.
- 5. Function effectively as a member or leader of a team engaged in activities appropriate to the discipline of the program.
- 6. Support the delivery, use, and management of information systems within an information systems environment.
- 7. Have the ability to stay up-to-date in the area and learn topics of interest through self-learning.

#### **Declaration of Values**

The values of integrity, responsibility, fairness, respect, and trust are the guide for faculty, students, and non-faculty to fulfill the Mission of the Computer Information Systems Science Program. These values will unify the department in the pursuit of academic excellence, goals, and purposes within a framework of personal and professional responsibilities based on ethical-social conduct.

*Integrity*. Act in an upright, probate, and blameless manner in the fulfillment of duties. Be committed to seeking the truth, avoid situations involving potential conflicts of interest, and be a model of decency and decorum for the community.

*Responsibility*. Be committed to faithfully fulfilling obligations diligently and promptly. This value entails a commitment to providing an effective service to ensure that resources are used in

the best possible way, informed decisions are made, and actions are taken accountable. Comprehensive student service is a priority responsibility.

*Justice*. Show objectivity and impartiality when making decisions. They will be guided by duty or conscience in the application of rules and regulations that affect academic and administrative activities.

In the granting of promotions, evaluations and qualifications, discrimination will be made on the basis of intellectual and professional merit and not on subjective factors.

*Respect*. Treat all people with dignity and protect their rights. It will strive to foster an environment of mutual respect, tolerance for diversity of opinions, participation in deliberative processes and differences of opinion. This is essential to nurture the creative expression that characterizes the university.

*Confidence*. Act firmly and confidently in all communications and actions. The actions will be characterized by transparency, fairness and accuracy in the processes. The right to privacy will be respected and fostered among all components.

#### STUDY PROGRAM

		First Year			
First Semester			Credits		
INGL	3101	Basic Eng, I	2		
o INGL	3103	Intermediate Eng. I	3		
INGL	3113	Bas. Eng. Lab I	0		
ADMI	3005	Management Theory	3		
ESPA	3101	Basic Spanih I	3		
MATE	3001	Introductory Mathematics I	3		
SICI	3211	Fund. of Information Systems	3		
		Subtotal	15		
Segundo Se			Créditos		
INGL	3102	Basic Eng. II	3		
o INGL	3104	Intermediate Eng. II	3		
INGL	3114	Bas. Eng. Lab II	0		
ESPA	3102	Basic Spanish II	3		
MECU	3031	Quantitative Methods for Business Administration I	3		
COTI	3101	Algorithms and Program Development I	4		
SICI	3015	Analysis and Design of Information Systems	3		
2101	0010	Subtotal	16		
	Second Year				
First Semester		Credits			
COTI	3102	Algorithms and Program Development II	4		

a. a.	40.00		
SICI	4020	Analysis and Design of Advanced Structured System	3
CONT	3005	Int. Fundamentals of Accounting I	4
INGL	3116	Business Communication Compendium	3
<b>MECU</b>	3032	Quantitative Methods for Business	3
		Administration II	
		Subtotal	17
Segundo	Semestre		Créditos
COTI	4210	Web Application Programming	3
ESTA	3001	Business Statistics	3
SICI	3019	Audit and Control of Inf Systems.	3
FILO	3185	Computer Ethics	3
ARTE	3116	History of Art	3
MERC	3115	Marketing Principles	3
WILKC	3113		
		Subtotal	18
		701 · 1 × 7	
Einst Com		Third Year	Cuadita
First Sen		Data Dasa Davidanmant	Credits
SICI	4030	Data Base Development Data Structure	3
SICI	4036		3
SICI	4010	Computer Statistics	3
FINA	3106	Financial Management	3
CISO	3121	Int. Social Science I	3
SICI		Oriented Elective	3
		Subtotal	18
C1 C	·		C 1:4-
Second S		Data Communication	Credits 3
SICI	4037		
SICI	4029	Fund. of Operating Systems	3
CIBI	3001	Fundamentals of Biology I	
CIFI	3001	Introduction to Physical Science I	3
SICI		Oriented Elective	3
		Free Elective Subtotal	3 18
		Subtom	10
		Fourth Year	~ **
First Sen			Credits
SICI	4998	Cooperative Educational Experience	2
HIST	3241	History of Puerto Rico I	3 3 3
HUMA	3111	Western Culture Compendium I	3
SICI		Oriented Elective	
		Free Elective	3
		Subtotal	14

Second	Semester		Credits
SICI	4065	Programming Internship	4
HIST	3242	History of Puerto Rico II	3
SICI		Oriented Elective	3
		Free Elective	3
		Free Elective	3
		Subtotal	16

TOTAL CREDITS: 132

Oriented Elective (12 redits). The student will take (4) courses.

Code		Course Title	<b>Credits</b>
CCOM	4019	WEB Programming	3
COTI	4260	Information Security	3
SICI	3020	Programming C++	3
SICI	3028	Applied Programming	3
SICI	3039	Comparing Programming Languages	3
SICI	4278	Management Aspects of Information	3
		Systems	3
SICI	4997	Special Topics and New Technologies	3
SICI	4995	Computer Science Special Topics	3
SICI	4175	Programming JAVA	3
SICI	4185	Introduction to mobile programming	3
SICI	4215	Business Analytics	3
SICI	4XX0	Human Computer Interaction	3
		Total	12

#### **BIOLOGY**

The Department of Biology at the University of Puerto Rico at Ponce offers a Bachelor of Natural Sciences Program with two concentrations: Biomedical and Biology, which allows its students a comprehensive education; the acquisition of skills, knowledge and positive attitudes to serve society through the use of biology as an axis.

Both baccalaureates prepare biologists with the necessary skills to contribute to the development of technology and research and to work in professions in which they are used, without losing perspective of their social coexistence. Both programs aim to educate scientists with a commitment to service and at the same time train students to pursue graduate studies in various areas depending on the concentration they select. These baccalaureates contribute to the fulfillment of the Science and Technology Policy of the University of Puerto Rico, which has among its strategies the expansion of programs to prepare researchers and specialists in areas related to biology and health.

Both baccalaureates prepare biologists with the necessary skills to contribute to the development of technology and research and to work in professions in which they are used, without losing perspective of their social coexistence. Both programs aim to educate scientists with a commitment to service and at the same time train students to pursue graduate studies in various areas depending on the concentration they select. These baccalaureates contribute to the fulfillment of the Science and Technology Policy of the University of Puerto Rico, which has among its strategies the expansion of programs to prepare researchers and specialists in areas related to biology and health.

The Bachelor's Degree in Biomedicine includes concentration course options that will impart knowledge in the different branches of biology such as: human body sciences, genetics, microbiology, biochemistry and molecular sciences, research and environmental sciences. Each student, according to their needs, will have the opportunity to take the concentration courses that best suit them depending on their personal interests, educational and professional goals. The Bachelor's Degree in Biomedicine in particular contains requirements to meet the educational needs of students interested in pursuing studies in health-related areas.

As of the 2022-2023 academic year, the Bachelor of Biomedical has three binary curriculum options with graduate-level programs for eligible students. Two of the programs are offered in consortium with Ponce Health Sciences University: a binary Bachelor of Science and Doctor of Medicine (BS/MD) program and a Bachelor of Science and Doctor of Philosophy (BS/PhD) program. The third binary Bachelor of Science and Doctor of Pharmacy (BS/PharmD) program is offered in consortium with Nova Southeastern University. Any of the three binary programs available gives the student the opportunity to take their first three years of high school studies at the University of Puerto Rico at Ponce and in the fourth year begin their doctoral studies at the university that offers the doctoral degree. Once the student successfully completes the first year of doctoral studies, he or she will be awarded a bachelor's degree at UPR Ponce.

The Bachelor of Science in Biology offers the opportunity to choose between four distinct areas of emphasis, depending on the student's interests: Biodiversity Evaluador, Biotechnology,

Biochemistry and Tropical Medicine, and Global Health. Each area of emphasis provides the foundation for pursuing graduate studies in biology or related areas.

The scope of the Baccalaureate Programs contributes to the preparation of professionals who help achieve scientific and technological competitiveness in Puerto Rico in the 21st century. The incorporation of the biosocial element contributes to the training of biologists aware of the relationship between science and society. This program represents for the University of Puerto Rico at Ponce to be able to offer students from the southern region of Puerto Rico, the opportunity to finish a bachelor's degree in natural sciences at the institution; especially those students with low economic resources. The impact of the Baccalaureates can be considered in several aspects:

### Social

- 1. It offers students from the southern area and adjacent areas the possibility of finishing a bachelor's degree in science in their same area of residence, without having to move to other parts of the island.
- 2. It allows students with a biomedical and biological vocation to finish, with an excellent preparation, their degree in the academic area of interest.

#### **Economic**

1. It prepares qualified professionals to contribute their knowledge to society in a responsible manner in accordance with the needs of the social and economic development of the southern area.

#### **Department Vision**

To be the academic department in the southern region that most effectively trains professionals of excellence in biomedical careers and biology for the well-being of the country.

## BACHELOR OF NATURAL SCIENCES WITH A CONCENTRATION IN BIOLOGY

#### Mission

The Bachelor of Natural Sciences with a concentration in Biology is framed in a philosophy of university preparation that incorporates technology, ethics, the environment, biodiversity and social responsibility. It provides studies with active learning experiences and with the knowledge and ability to engage in technological careers and scientific research. It provides a challenging environment for students to develop their full potential and integrates formative experiences that allow for broad participation. It stimulates the development of ethical responsibility and commitment to service to their community.

#### Goals

The Bachelor of Natural Sciences with a concentration in Biology allows students to develop the necessary skills in the area of Biology so that they can contribute to the development of our

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society. They will work efficiently as biologists, both in the area of scientific research, and employed within government agencies or the private sector. It provides the academic foundations necessary to pursue graduate studies and to work in the area of environmental and biotechnology research.

#### **Objectives**

The general objectives common to both programs and shown below will help to achieve the proposed goals.

- 1. To provide a diverse curriculum that allows students to apply knowledge of biological concerns to help solve the problems of our society.
- 2. Prepare the student to work as a biologist, both in the area of scientific research, as well as employed within the manufacturing, pharmaceutical or biomedical industry and government agencies.
- 3. Provide knowledge and experiences that promote the development of high-level thinking skills that include synthesis, analysis, interpretation, prediction, decision-making, and critical thinking.
- 4. Contribute to the training of graduates who have effective oral and written communication in English and Spanish that allows them to perform successfully in the area of the specialty they select.
- 5. Provide experiences in a variety of environments that allow the student to develop a high sense of respect and sensitivity towards their peers and the environment.

The general objectives of each concentration are:

#### Biomedical:

- 1. Incorporate a biosocial approach into the curriculum.
- 2. Facilitate the completion of admission requirements to health-related graduate programs.

#### **Biology**

1. Incorporate an investigative approach into the curriculum.

## BACHELOR OF NATURAL SCIENCES WITH CONCENTRATION IN BIOMEDICAL

First Year	First Semester	Credits
BIOL 3011	General Biology I	4
BIOL 3013	Lab. General Biology I	0
CISO 3121	Introduction Social Sciences I	3
ESPA 3101	Basic Spanish I	3
MATE 3171	Precalculus I	3
QUIM 3001	General Chemistry I	4
QUIM 3003	Lab. General Chemistry I	<u>0</u>
	•	Subtotal 17

<b>Second Semester</b>		Credits
BIOL 3012	General Biology II	4
BIOL 3014	Lab. General Biology II	0
CISO 3122	Introduction Social Sciences II	3
ESPA 3102	Basic Spanish II	3
MATE 3172	Precalculus II	3
QUIM 3002	General Chemistry II	4
QUIM 3004	Lab. General Chemistry II	<u>0</u>
		Subtotal 17

## **Second Year**

First Semester		Credits
	Concentration Course	4
ESPA 3015	Grammar and Composition	3
ENGL 3101	Basic English I	3
ENGL 3113	Basic English Oral Practice I	0
MATE 3031	Calculation I	4
QUIM 3031	Organic Chemistry I	4
QUIM 3033	Lab. Organic Chemistry I	<u>0</u>
		Subtotal 18
Second Semester		Credits
	Concentration course	3 or 4
ENGL 3102	Basic English II	3
ENGL 3114	Basic English Oral Practice II	0
QUIM 3032	Organic Chemistry II	4
QUIM 3034	Lab. Organic Chemistry II	0
	Free elective	3
	Elective in Humanities	<u>3</u>
		Subtotal 16-17

## Third Year

First Semester		Credits
	Concentration course	3 or 4
FISI 3011	University Physics I	3
FISI 3013	Lab. University Physics I	1
ENGL 4021	Technical Writing	3
	Directed elective	<u>3</u>
		Subtotal 13-14
Second Semester		Credits
	Concentration Course	3

	Concentration Course	3
	Concentration Course	1
FISI 3012	University Physics II	3
FISI 3014	Lab. University Physics II	1
PSIC 3005	General Psychology	3
	Free elective	<u>3</u>
		Subtotal 17

## **Fourth Year**

First Semester		Credits
BIOL 3740	Biometrics	3
	Concentration Course	3
	Concentration Course	3
FILO 4028	Bioethics	3
	Free elective	<u>3</u>
		Subtotal 15
Second Semester		Credits
	Concentration Course	3
	Elective in Humanities	3

**TOTAL BACCALAUREATE CREDITS: 125-127** 

Directed elective

Free elective

The student wishing to study medicine must take 12 credits in Social and Behavioral Sciences, in English and Spanish.

Concentration Courses (25 credits)

Area of Speciality	Courses	Credits	
A	BIOL 3018/3028	Developmental Biology	4/0
	BIOL 3791/3793	Human Biology III/Lab.	4/0
	BIOL 3792/3794	Human Biology IV/ Lab.	4/0
	BIOL 3799	Physiology of the Human Body	3
	BIOL 4755/4756	Histology/Lab.	3
	BIOL 4758	Neurobiology	3
В	BIOL 3305/3306	Genetics/Lab.	4/0
	BIOL 4041	Human Genetics	3
С	BIOL 3907 BIOL 3010/3020 QUIM 4055 o BIOL 4545	Molecular Biology Cell Biology. Molecular/Lab. Biochemistry Cell Biochemistry	3 3/0 3

3

Subtotal  $\frac{3}{12}$ 

D	BIOL 3705/3707	General Microbiology/Lab.	4/0
	BIOL 4056	Immunology	3
	BIOL 4375	Clinical Microbiology/Lab.	3/0
	BIOL 4426/4427	General Parasitology/Lab.	3/0
E	BIOL 3108	Undergraduate Research	2
	BIOL 3909	Seminar in Biology	1
	BIOL4925	Seminar	1
F	BIOL 3115/3116	General Ecology/Lab.	4/0
	BIOL 3155	The Human Being and his Environment	nt 3
	BIOL 4033	Biosocial and Environmental Issues	3

The total credits of the concentration courses is 25. These credits must include at least one course in each area indicated.

## **Directed Electives (6 credits)**

		Credits
CIPO 3011	Principles and Problems Political Science	3
CIPO 3035	Political System of Puerto Rico	3
CISO 3225	Moral Social	3
ECON 3005	Introduction to Economics I	3
SOCI 3275	Sociology of Behavior Variation	3
ANTR 3006	Sociocultural Anthropology	3
SOCI 3245	General Sociology	3
SOCI 3285	Group Dynamics	3
SOCI 3335	Social Problems	3
FILO 4471	Philosophy of Science 3	

### **Free Electives**

(12 credits)

## BACHELOR OF NATURAL SCIENCES WITH CONCENTRATION IN BIOLOGY WITH EMPHASIS BIODIVERSITY EVALUATOR

#### First Year

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

Second Semester BIOL 3012 BIOL 3014 QUIM 3002 QUIM 3004 CISO 3122 ESPA 3102 MATE 3172	General Biology II Lab. General Biology II General Chemistry II Lab. General Chemistry II Introduction Social Sciences II Basic Spanish II Pre Calculus II	Subtotal	Credits  4  0  4  0  3  3  17
	C <b>1</b> V		
First Semester	Second Year		Credits
BIOL 3425	Biology Organismal Animal		4
BIOL 3426	Lab. Biología Organismal Animal		0
BIOL 3417	Biology Organismal Vegetal		4
BIOL 3418	Lab. Plant Organismal Biology		0
BIOL 3705	Microbiology		4
BIOL 3707	Microbiology Lab		0
QUIM 3031	Organic Chemistry I		4
QUIM 3033	Lab. Organic Chemistry I		0
MATE 3031	Calculation I		4
ESPA 3015	Grammar and Composition		3
INGL 3101	Basic English I		3
INGL 3113	Basic English Speaking Practice I		<u>0</u>
		Subtotal	18
G 1G 4			<b>a</b> 114
Second Semester	C:		Credits
BIOL 3305	Genetics		4
BIOL 3306	Lab. Genetics		0
QUIM 3032 QUIM 3034	Organic Chemistry II Lab. Organic Chemistry II		4 0
QUIM 3034	Elective in Humanities		3
INGL 3102	Basic English II		3
INGL 3114	Basic English Oral Practice II		0
I (OL 311)	Free elective		<u>3</u>
	Tree creent	Subtotal	<u>=</u> 17
	Third Year		
Final Comments			C 1'4
First Semester	Ecology		Credits
BIOL 3115 BIOL 3116	Ecology		4 0
FISI 3011	Lab. Ecology University Physics I		3
FISI 3011 FISI 3013	University Physics Lab I		1
1 101 3013	Elective in Social Sciences		3
	Licetive in Social Sciences		3

Free elective

<u>3</u> 14

Subtotal

<b>Second Semester</b>			<b>Credits</b>
BIOL	Required Course		3 o 4
BIOL	Required Course		1
FISI 3012	University Physics II		3
FISI 3014	Lab. University Physics II		1
INGL 4021	Technical Writing		3
	Elective in Humanities		<u>3</u>
		Subtotal	14 -15

## **Fourth Year**

First Semester BIOL 3010 BIOL 3020 BIOL FILO 4028	Molecular Cell Biology 3 Lab. Molecular Cell Biology Required Course Bioethics Directed elective Free elective  Subtotal	0 2 3 3 3 14
Second Semester BIOL 3740	Credits Biometrics Directed elective Directed elective Free elective  Subtotal	3 3 3 3 12

## **TOTAL CREDITS: 123-124**

## Required Courses\*

BIOL 3108	Undergraduate Research 2	
BIOL 3909	Seminar in Biology	1
BIOL 4925	Seminar	1
BIOL 4558	Ecology of Tropical Terrestrial Communities	4
BIOL 4559	Lab. Ecology of Tropical Terrestrial Communities	0

<sup>\*</sup>The student must complete at least a total of six credits between the required courses.

## **Directed Electives\*\***

BIOL 3146	Economic Botany	3
BIOL 4415	Invertebrates	3
BIOL 4417	Lab. Invertebrates	0
BIOL 4335	Evolution	3

<b>BIOL 4435</b>	Taxonomy of Vascular Plants	3
<b>BIOL 4436</b>	Lab. Taxonomy of Vascular Plants	0
<b>BIOL 4446</b>	Introduction to Entomology	3
<b>BIOL 4447</b>	Terrestrial Vertebrate Biology of Puerto Rico	3
<b>BIOL 4448</b>	Lab. Biology of Terrestrial Vertebrates	
	Puerto Rico	0
<b>BIOL</b> 4993	Special Topics in Biology I 1-3	
<b>BIOL</b> 4994	Special Topics in Biology I 1-3	

<sup>\*\*</sup>The student must complete at least a total of nine credits in directed electives.

Free Electives (12 credits)

## BACHELOR OF NATURAL SCIENCES WITH CONCENTRATION IN BIOLOGY WITH EMPHASIS ON BIOTECHNOLOGY

### First Year

First Semester			<b>Credits</b>
BIOL 3011	General Biology I		4
BIOL 3013	Lab. General Biology I		0
QUIM 3001	General Chemistry I		4
QUIM 3003	General Chemistry Lab I		0
CISO 3121	Introduction Social Sciences I		3
ESPA 3101	Basic Spanish I		3
MATE 3171	Precálculo I		<u>3</u>
		Subtotal	17
<b>Second Semester</b>			Credits
Second Semester BIOL 3012	General Biology II		Credits 4
	General Biology II Lab. General Biology II		
BIOL 3012	<b>5.</b>		4
BIOL 3012 BIOL 3014	Lab. General Biology II		4 0
BIOL 3012 BIOL 3014 QUIM 3002	Lab. General Biology II General Chemistry II		4 0 4
BIOL 3012 BIOL 3014 QUIM 3002 QUIM 3004	Lab. General Biology II General Chemistry II Lab. General Chemistry II		4 0 4 0
BIOL 3012 BIOL 3014 QUIM 3002 QUIM 3004 CISO 3122	Lab. General Biology II General Chemistry II Lab. General Chemistry II Introduction Social Sciences II		4 0 4 0 3

## **Second Year**

First Semester		Credits
BIOL 3425	Biology Organismal Animal	4
BIOL 3426	Lab. Biología Organismal Animal	0
BIOL 3417	Biology Organismal Vegetal	4
BIOL 3418	Lab. Plant Organismal Biology	0
BIOL 3705	Microbiology	4
BIOL 3707	Microbiology Lab	0

QUIM 3031 QUIM 3033 MATE 3021 ESPA 3015 INGL 3101 INGL 3113 Second Semester BIOL 3305 BIOL 3306 QUIM 3032 QUIM 3034 MATE 3022	Organic Chemistry I Lab. Organic Chemistry I Mate analysis. Cs. Biol. I Grammar and Composition Basic English I Basic English Speaking Practice I  Genetics Lab. Genetics Organic Chemistry II Lab. Organic Chemistry II Mate analysis. Cs. Biol. II	Subtotal	4 0 3 3 3 0 17 <b>Credits</b> 4 0 4 0 3
INGL 3102	Basic English II		3
INGL 3114	Basic English Oral Practice II		0
	Free elective	Subtotal	<u>3</u> 17
		Subtotal	17
<b>F</b> ' 4 G	Third Year		G 114
First Semester BIOL 3115	Ecology		Credits 4
BIOL 3116	Lab. Ecology		0
o BIOL 3155	The Human Being and his Environme	nt	3
FISI 3011	University Physics I		3
FISI 3013	University Physics Lab I		1
	Elective in Social Sciences		3 3 <u>3</u>
	Elective in Humanities Free elective		3
	riee elective	Subtotal	<u>3</u> 16-17
			10 17
Second Semester			Credits
BIOL	Required Course		3 o 4
BIOL 3909 FISI 3012	Seminar in Biology University Physics II		1 3
FISI 3014	Lab. University Physics II		1
INGL 4021	Technical Writing		
	Elective in Humanities		3 <u>3</u>
		Subtotal	14-15
	Fourth Year		
First Semester			Credits
BIOL 3010	Molecular Cell Biology 3		_
BIOL 3020	Lab. Molecular Cell Biology		0
FILO 4028	Bioethics Undergraduate Research		3
BIOL 3108	Undergraduate Research Directed elective		3
	Free elective		2 3 <u>3</u>
			<del>-</del>

198

Subtotal	14

Second Semester		Credits
BIOL 3740	Biometrics	3
	Directed elective	3
	Directed elective	3
	Free elective	3
	Subto	tal 12

#### **TOTAL CREDITS: 123-124**

## **Required Courses\***

BIOL 3108	Undergraduate Research	2
BIOL 3909	Seminar in Biology	1
BIOL 4895	Experimental Biotechnology	3
BIOL 4993	Special Topics in Biology 1-3	

<sup>\*</sup>The student must complete at least a total of six credits between the required courses.

## **Directed Electives\*\***

BIOL 4056	Immunology	3
QUIM 4055	Biochemistry	3
QUIM 3025	Analytical chemistry	4
QUIM 3026	Lab. Analytical Chemistry	0
QUIM 4058	Natural Products Chemistry	3

<sup>\*\*</sup>The student must complete a total of nine credits in directed electives.

## Free Electives (12 credits)

## BACHELOR OF NATURAL SCIENCES WITH CONCENTRATION IN BIOLOGY WITH EMPHASIS ON EVALUATOR OF COASTAL MARINE ENVIRONMENT

#### First Year

First Semester		Credits
BIOL 3011	General Biology I	4
BIOL 3013	Lab. General Biology I	0
QUIM 3001	General Chemistry I	4
QUIM 3003	General Chemistry Lab I	0
CISO 3121	Introduction Social Sciences I	3

ESPA 3101 MATE 3171	Basic Spanish I Precálculo I Subtotal	3 <u>3</u> 17
Second Semester BIOL 3012 BIOL 3014 QUIM 3002 QUIM 3004 CISO 3122 ESPA 3102 MATE 3172	General Biology II Lab. General Biology II General Chemistry II Lab. General Chemistry II Introduction Social Sciences II Basic Spanish II Precalculus II  Subtotal	Credits  4 0 4 0 3 3 3 17
	Second Year	
First Semester BIOL 3425 BIOL 3426 BIOL 3417 BIOL 3418 BIOL 3705 BIOL 3707 QUIM 3031 QUIM 3033 MATE 3031 ESPA 3015 INGL 3101 INGL 3113	Biology Organismal Animal Lab. Biología Organismal Animal Biology Organismal Vegetal Lab. Plant Organismal Biology Microbiology Microbiology Lab Organic Chemistry I Lab. Organic Chemistry I Calculation I Grammar and Composition (or equivalent) Basic English I Basic English Speaking Practice I  Subtotal 18	Credits  4 0 4 0 4 0 4 0 4 3 3 0
Second Semester BIOL 3305 BIOL 3306 QUIM 3032 QUIM 3034 INGL 3102 INGL 3114	Genetics Lab. Genetics Organic Chemistry II Lab. Organic Chemistry II Basic English II Basic English Oral Practice II Elective in Humanities Free elective  Subtotal 1	Credits  4 0 4 0 3 0 3 2 7
First Semester BIOL 3115	Third Year Ecology	Credits 4
BIOL 3116	Lab. Ecology	0

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FISI 3013 Un Ele	niversity Physics I niversity Physics Lab I nective in Social Sciences nee elective	Subtotal	3 1 3 3 14
BIOL Rec FISI 3012 Un FISI 3014 Lal INGL 4021 Tec	quired Course quired Course iversity Physics II b. University Physics II chnical Writing ective in Humanities	Subtotal	Credits 3 o 4 1 3 1 3 1 4 1 3 1 4-15
	Fourth Year		
BIOL 3020 Lat BIOL Rec WIRE 4028 Bio	olecular Cell Biology b. Molecular Cell Biology quired Course pethics rected elective see elective	Subtotal	Credits  3 0 2 3 3 3 14
Dii Dii	ometrics rected elective rected elective ee elective	Subtotal	Credits  3 3 3 3 12
	TOTAL CREDITS: 124		
BIOL 3909 Ser BIOL 4925 Ser BIOL 3117 Into	ndergraduate Research minar in Biology minar roduction to Oceanography b. Introduction to Oceanography		2 1 4 0

<sup>\*</sup>The student must complete at least a total of seven credits between the required courses.

## **Directed Electives**\*\*

BIOL 4607	Marine Ecosystems	3
BIOL 4125	Economic Social and Environmental Law 2	

BIOL 4635	Seminar on Marine Resources	2
BIOL 3919	Water Microbiology	3
BIOL 3920	Water Microbiology Lab	0
BIOL 4415	Invertebrates	3
BIOL 4417	Lab. Invertebrates	0
BIOL 4077	Coastal Resources	3
BIOL 4021	Intro to Ortinitology	3
BIOL 4022	Lab. Intro. to Ornithology	0
BIOL 4993	Special Topics in Biology I 1-3	
BIOL 4994	Special Topics in Biology II 1-3	

<sup>\*\*</sup>The student must complete a total of nine credits in directed electives.

Free Electives (12 credits)

## BACHELOR OF NATURAL SCIENCES WITH CONCENTRATION IN BIOLOGY WITH EMPHASIS IN BIOCHEMISTRY

### First Year

First Semester			<b>Credits</b>
BIOL 3011	General Biology I		4
BIOL 3013	Lab. General Biology I		0
QUIM 3001	General Chemistry I		4
QUIM 3003	General Chemistry Lab I		0
CISO 3121	Introduction Social Sciences I		3
ESPA 3101	Basic Spanish I		3
MATE 3171	Precálculo I		<u>3</u>
		Subtotal	17

<b>Second Semester</b>			Credits
BIOL 3012	General Biology II		4
BIOL 3014	Lab. General Biology II		0
QUIM 3002	General Chemistry II		4
QUIM 3004	Lab. General Chemistry II		0
CISO 3122	Introduction Social Sciences II		3
ESPA 3102	Basic Spanish II		3
MATE 3172	Precalculus II		<u>3</u>
		Subtotal	17

### **Second Year**

First Semester		Credits
BIOL 3425	Biology Organismal Animal	4
BIOL 3426	Lab. Biología Organismal Animal	0
BIOL 3417	Biology Organismal Vegetal	4
BIOL 3418	Lab. Plant Organismal Biology	0

BIOL 3705 BIOL 3707 QUIM 3031 QUIM 3033 MATE 3031 ESPA 3015 INGL 3101 INGL 3113  Second Semester BIOL 3305 BIOL 3306 QUIM 3032 QUIM 3034  INGL 3102 INGL 3114	Microbiology Microbiology Lab Organic Chemistry I Lab. Organic Chemistry I Calculation I Grammar and Composition Basic English I Basic English Practice I  Genetics Lab. Genetics Organic Chemistry II Lab. Organic Chemistry II Elective in Humanities Basic English II Basic English Oral Practice II Free elective	Subtotal 17	4 0 4 0 4 3 3 0 18 <b>Credits</b> 4 0 4 0 3 3 0 3
		Subtotal 1	(
	Third Year		
First Semester BIOL 3115 BIOL 3116 FISI 3011 FISI 3013	Ecology Lab. Ecology University Physics I University Physics Lab I Elective in Social Sciences Free elective	Subtotal	Credits  4 0 3 1 3 3 14
Second Semester BIOL BIOL FISI 3012 FISI 3014 ENGLISH 4021	Required Course Required Course University Physics II Lab. University Physics II Technical Writing Elective in Humanities	Subtotal	Credits 3 o 4 1 3 1 3 1 4 -15
	Fourth Year		
First Semester BIOL 3010 BIOL 3020 BIOL WIRE 4028	Molecular Cell Biology 3 Lab. Molecular Cell Biology Required Course Bioethics		0 2 3

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	Directed elective Free elective	Subtotal	3 <u>3</u> 14
<b>Second Semester</b>			Credits
BIOL 3740	Biometrics		3
	Directed elective		3
	Directed elective		3
	Free elective		<u>3</u>
		Subtotal	12

## **TOTAL CREDITS: 123-124**

## **Required Courses\***

QUIM 4055 o	Biochemistry	3
BIOL 4545	Cell Biochemistry	
QUIM 4049	Medicinal Chemistry	3
BIOL 3108 or	Undergraduate Research	2
QUIM 4998	Undergraduate Research	
QUIM4999	Undergraduate Research	
BIOL 3909 or	Seminar in Biology or	1
BIOL 4925	Seminar	

<sup>\*</sup>The student must complete at least a total of seven credits between the required courses.

## **Directed Electives\*\***

QUIM 3025	Analytical chemistry	4
QUIM 3026	Lab. Analytical Chemistry	0
QUIM 4058	Natural Products Chemistry	3
QUIM4000	Inorganic chemistry	3
BIOL3799	Physiology of the Human Body	3
BIOL 3907	Molecular biology	3
BIOL 4993	Special Topics in Biology I	1-3
BIOL 4994	Special Topics in Biology II	1-3

<sup>\*\*</sup>The student must complete a total of nine credits in directed electives.

## Free Electives (12 credits)

# BACHELOR OF NATURAL SCIENCES WITH CONCENTRATION IN BIOLOGY WITH EMPHASIS ON TROPICAL MEDICINE AND GLOBAL HEALTH

#### First Year

	First Year	
First Semester		Credits
BIOL 3011	General Biology I	4
BIOL 3013	Lab. General Biology I	0
QUIM 3001	General Chemistry I	4
QUIM 3003	General Chemistry Lab I	0
CISO 3121	Introduction Social Sciences I	3
ESPA 3101	Basic Spanish I	3 3
MATE 3171	Pre Calculus I	3
		Subtotal 17
Second Semester		Credits
BIOL 3012	General Biology II	4
BIOL 3014	Lab. General Biology II	0
QUIM 3002	General Chemistry II	4
QUIM 3004	Lab. General Chemistry II	0
CISO 3122	Introduction Social Sciences II	3
ESPA 3102	Basic Spanish II	3
MATE 3172	Precálculo II	<u>3</u>
		Subtotal 17
	Second Year	
First Semester		Credits
BIOL 3425	Biology Organismal Animal	4
BIOL 3426	Lab. Biología Organismal Animal	0
BIOL 3417	Biology Organismal Vegetal	4
BIOL 3418	Lab. Plant Organismal Biology	0
BIOL 3705	Microbiology	4
BIOL 3707	Microbiology Lab	0
QUIM 3031	Organic Chemistry I	4
QUIM 3033	Lab. Organic Chemistry I	0
MATE 3031	Calculation I	4
ESPA 3015	Grammar and Composition	3
INGL 3101	Basic English I	3
INGL 3113	Basic English Speaking Practice I	<u>0</u>
		Subtotal 18
<b>Second Semester</b>		Credits
BIOL 3305	Genetics	4
BIOL 3306	Lab. Genetics	0
QUIM 3032	Organic Chemistry II	4
QUIM 3034	Lab. Organic Chemistry II	0
	Elective in Humanities	3
INGL 3102	Basic English II	3
INGL 3114	Basic English Oral Practice II	0

	Free elective	Sub	3 total 17
	Third Year		
First Semester BIOL 3115 BIOL 3116 FISI 3011 FISI 3013	Ecology Lab. Ecology University Physics I University Physics Lab I Elective in Social Sciences Free elective	Subtotal	Credits  4  0  3  1  3 <u>3</u> 14
Second Semester BIOL BIOL FISI 3012 FISI 3014 INGL 4021	Required Course Required Course University Physics II Lab. University Physics II Technical Writing Elective in Humanities		Credits 3 o 4 1 3 1 3 1 3
	Fourth Year	Subtotal	14 -15
First Semester BIOL 3010	Molecular Cell Biology 3		Credits
BIOL 3020 BIOL FILO 4028	Lab. Molecular Cell Biology Required Course Bioethics Directed elective Free elective	Subtotal	0 2 3 3 3 14
Second Semester BIOL 3740	Credits Biometrics Directed elective Directed elective Free elective	Subtotal	3 3 3 3 12
	TOTAL CREDITS: 123-124		
Required Courses*			
BIOL 3108 BIOL 3909 BIOL 4925	Undergraduate Research Seminar in Biology or Seminar		2 1
BIOL 4033 BIOL 4446	Biosocial and Environmental Issues Introduction to Entomology		3

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\*The student must complete at least a total of seven credits between the required courses.

#### **Directed Electives\*\***

ntroduction to Medical Mycology	3
Lab. Introduction to Medical Mycology	0
Physiology of the Human Body	3
ntroduction to Immunology	3
Evolution	3
Clinical Microbiology	3
Lab. Clinical Microbiology	0
Parasitology	3
Lab. Parasitology	0
ntroduction to Virology 3	
Special Topics in Biology I or 1-3	
Special Topics in Biology II	
	Lab. Introduction to Medical Mycology Physiology of the Human Body Introduction to Immunology Evolution Clinical Microbiology Lab. Clinical Microbiology Parasitology Lab. Parasitology Introduction to Virology 3 Especial Topics in Biology I or 1-3

<sup>\*\*</sup>The student must complete a total of nine credits in directed electives. **Free Electives** (12 credits)

## BACHELOR OF NATURAL SCIENCES WITH A CONCENTRATION IN BIOLOGY SECOND CONCENTRATION IN BIOMEDICAL (19-20 credits)

## Second concentration in Biomedical for students of the Bachelor of Biology

### The student must take the following courses:

Codification	Title	Credits	
BIOL 4755/56	Histology/Lab.	3	
BIOL 4041	<b>Human Genetics</b>	3	
BIOL 4426/27	Animal Parasitology/Lab.	3	
BIOL 4375-LAB	Clinical Microbiology/Lab.	3	
The student must take two courses from among the following:			
BIOL 3907	Molecular biology	3	
BIOL 3018/28	Developmental biology	4	
BIOL 3791/93	Human Biology III/Lab.	4	
BIOL 3792/94	Human Biology IV/Lab.	4	
		Total of credits 19-20	

The student will declare his intention to obtain the second concentration in or before having passed 50% (62) of the credits of the Baccalaureate in Biology and must complete the form created for these purposes by the Registry Office.

A student who has passed more than 62 credits will require approval from the Dean of Academic Affairs.

The requirements to be able to apply for it are the following:

- 1. Be active and be admitted to the Bachelor of Biology program.
- 2. Possess a minimum of 24 approved credits.
- 3. Have passed the courses of BIOL 3011 and BIOL 3012 with a minimum grade of C.

Requirements of the Department of Biology for the granting of the second concentration:

- 1. Have passed with a grade of C or more the courses of the second concentration.
- 2. Have an average of 2.50 or higher in the courses of the second concentration.

# BACHELOR OF NATURAL SCIENCES WITH CONCENTRATION IN BIOMEDICAL BINARY PROGRAM OF BACHELOR OF NATURAL SCIENCES AND DOCTORATE IN MEDICINE (BS/MD)

#### First Year

First Semester BIOL 3011 BIOL 3013 CISO 3121 ESPA 3101 MATE 3171 QUIM 3001 QUIM 3003 EDFU 3005	General Biology I Lab. General Biology I Introduction Social Sciences I Basic Spanish I Pre Calculus I General Chemistry I Lab. General Chemistry I University Life Subtota	Credits  4 0 3 3 4 0 0 0 17
	Subtota	11 1/
Second Semester BIOL 3012 BIOL 3014 CISO 3122 ESPA 3102 MATE 3172 QUIM 3002 QUIM 3004	General Biology II Lab. General Biology II Introduction Social Sciences II Basic Spanish II Pre Calculus II General Chemistry II Lab. General Chemistry II	Credits  4 0 3 3 4 0 17
Summer	Calantar I	4
MATE 3031	Calculus I Subtota	4 al 4
	Second Year	
First Semester	Concentration course (BIOL 3791/93 Human Biology III and Lab)	Credits 4

PSIC 3005 EDGE 4028 ENGL 3101 ENGLISH 3113 QUIM 3031 QUIM 3033	General Psychology Bioethics Basic English I Basic English Practice I Organic Chemistry I Lab. Organic Chemistry I  Subtotal	3 3 0 4 0 17
<b>Second Semester</b>		Credits
INGL 3102 INGL 3114	Concentration course (BIOL 3792/94 Human Biology IV and Lab) Basic English II Basic English Practice II Concentration course (BIOL 3305/06 Genetics and Lab	4 3 0 4
QUIM 3032 QUIM 3034	Organic Chemistry II Lab. Organic Chemistry II	4 <u>0</u>
Q011VI 3034	Subtotal	<u>0</u> 15
Summer ESPA 3015	Grammar and Composition Subtotal	<u>3</u> 3
	Third Year	
First Semester	Third Year	Credits
First Semester	Third Year  Concentration course (BIOL 3010/20 Biol. Cel. Molecular and Lab.)	Credits 3
FISI 3011	Concentration course (BIOL 3010/20 Biol. Cel. Molecular and Lab.) University Physics I	
FISI 3011 FISI 3013	Concentration course (BIOL 3010/20 Biol. Cel. Molecular and Lab.) University Physics I University Physics Lab I	3 3 1
FISI 3011	Concentration course (BIOL 3010/20 Biol. Cel. Molecular and Lab.) University Physics I University Physics Lab I Technical Writing	3 3 1 3
FISI 3011 FISI 3013	Concentration course (BIOL 3010/20 Biol. Cel. Molecular and Lab.) University Physics I University Physics Lab I Technical Writing Directed elective	3 3 1 3 3
FISI 3011 FISI 3013	Concentration course (BIOL 3010/20 Biol. Cel. Molecular and Lab.) University Physics I University Physics Lab I Technical Writing	3 3 1 3
FISI 3011 FISI 3013	Concentration course (BIOL 3010/20 Biol. Cel. Molecular and Lab.) University Physics I University Physics Lab I Technical Writing Directed elective Elective in Humanities  Subtotal  Concentration course (BIOL 3115/16 Ecology and Lab or BIOL 3155	3 1 3 3 3
FISI 3011 FISI 3013 INGL 4021	Concentration course (BIOL 3010/20 Biol. Cel. Molecular and Lab.) University Physics I University Physics Lab I Technical Writing Directed elective Elective in Humanities  Subtotal  Concentration course (BIOL 3115/16 Ecology and Lab or BIOL 3155 Human Being and His Environment or BIOL 4033 Biosocial and Environmental Issues) Biometrics Concentration course (BIOL 3909 Seminar in Biology or BIOL 4925	3 3 1 3 3 3 16  Credits
FISI 3011 FISI 3013 INGL 4021	Concentration course (BIOL 3010/20 Biol. Cel. Molecular and Lab.) University Physics I University Physics Lab I Technical Writing Directed elective Elective in Humanities  Subtotal  Concentration course (BIOL 3115/16 Ecology and Lab or BIOL 3155 Human Being and His Environment or BIOL 4033 Biosocial and Environmental Issues) Biometrics Concentration course (BIOL 3909 Seminar in Biology or BIOL 4925 Seminar)	3 3 1 3 3 3 16  Credits 3-4
FISI 3011 FISI 3013 INGL 4021  Second Semester  BIOL 3740	Concentration course (BIOL 3010/20 Biol. Cel. Molecular and Lab.) University Physics I University Physics Lab I Technical Writing Directed elective Elective in Humanities  Subtotal  Concentration course (BIOL 3115/16 Ecology and Lab or BIOL 3155 Human Being and His Environment or BIOL 4033 Biosocial and Environmental Issues) Biometrics Concentration course (BIOL 3909 Seminar in Biology or BIOL 4925	3 1 3 1 3 3 16  Credits 3-4

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#### Fourth Year

#### **Ponce Health Sciences University**

	Tonce Health Belences Chive sity	
First Semester		<b>Credits</b>
*ANA 605	Histology and Cell Biology	4
	**Free electives	<u>12</u>
	Student must take The remaining appropriations corresponding to the curricular sequence	
	in force of the first semester of the first year of the	
	PHSU up to 27 credits.	
	Subtotal	16
Second Semester *MIC 642	Microbiology I Student must take remaining credits corresponding to the current curricular sequence of the second semester of the first year of PHSU to achieve 26 credits.	Credits 4

#### **TOTAL CREDITS: 125-127**

Subtotal

4

- \* ANA 605, will be validated in UPR Ponce by BIOL 4755 and BIOL 4756 and the MIC 642 course, will be validated by BIOL 3705 and BIOL 3707 for the purposes of your baccalaureate.
- \*\* UPR Ponce will validate 12 to 14 credits with the best grade, taken at PHSU, as free electives according to the current curricular sequence corresponding to their first year of studies at that school. These credits are requirements to complete the baccalaureate degree.

The student must meet those additional credits to their baccalaureate to complete their first year of study at PHSU. See table with the PHSU curricular sequence.

The total number of credits upon completion of the requirements of the Bachelor of Natural Sciences with a Concentration in Biomedical is 126-127.

Concentration Courses (25 credits)

Area of Speciality	Courses	Credits	
A	BIOL 3018/3028	Developmental Biology	4/0
	BIOL 3791/3793	Human Biology III/Lab.	4/0
	BIOL 3792/3794	Human Biology IV/ Lab.	4/0

	BIOL 3799	Physiology of the Human Body	3
	ANA 605*	Histology and Cell Biolgoy	4
	BIOL 4758	Neurobiology	3
В	BIOL 3305/3306	Genetics/Lab.	4/0
	BIOL 4041	Human Genetics	3
C	BIOL 3907 Molecular	Biology 3	
	BIOL 3010/3020	Cell Biology. Molecular/Lab.	3/0
	QUIM 4055 o	Biochemistry	3
	BIOL 4545	Cell Biochemistry	
D	SMALL 642*	Microbiology I	4/0
	BIOL 4056	Immunology	3
	BIOL 4375	Clinical Microbiology/Lab.	3/0
	BIOL 4426/4427	General Parasitology/Lab.	3/0
Е	BIOL 3108	Undergraduate Research	2
	BIOL 3909	Seminar in Biology	1
	BIOL4925	Seminar	1
F	BIOL 3115/3116	General Ecology/Lab.	4/0
	BIOL 3155	The Human Being and his Environme	ent 3
	BIOL 4033	Biosocial and Environmental Issues	3

<sup>\*</sup> PHSU course to be validated by the UPR Ponce course described in the columns to the left. They must include at least one concentration course from each area (A-F) and complete 25 credits.

Free Electives – 12 credits

## **Directed Electives (6 credits)**

		Credits
CIPO 3011	Principles and Problems Political Science	3
CIPO 3035	Political System of Puerto Rico	3
CISO 3225	Moral Social	3
ECON 3005	Introduction to Economics I	3
MEMBERS 3275	Sociology of Behavior Variation	3
ANTR 3006	Sociocultural Anthropology	3
MEMBERS 3245	General Sociology	3
SOCI 3285	Group Dynamics	3
MEMBERS 3335	Social Problems	3
WIRE 4471	Philosophy of Science 3	

## **Free Electives**

(12 credits)

\*\*\*PHSU Medical Program Curriculum

FIRST YEAR: 40 weeks

	PHSU MEDICAL PROGRAM CURRICULUM – REV APRIL 6, 2020						
Cod	le	Pre-Clinical Courses	Credits	Code	;	Pre-Clinical Courses	Credits
ANA	601	Gross Anatomy,	9	PHY	602	Neuroscience	5
		Embryo. & Imaging					
BCH	612	Medical	5	BCH	614	Medical	5
		Biochemistry I				Biochemistry II	
ANA	605	Histology & Cell	4	DOGS	610	Behavioral Science	3
		Biology					
WITH	630	Clinical Correlation I	2	WITH	631	Clinical Correlation	1
						II	
PHY	692	Physiology I	4	PHY	694	Physiology II	4
FCM	719	Community	2	FCM	720	Community	2
		Medicine &				Medicine And	
		Geriatrics				Health Promotion	
IHS	919	Interprofessional	1	SMALL	642	Microbiology I	4
		Perspectives In					
		Health Disparities					
				WITH	635	Medical Ethics	2
		Total Credits	27			Total Credits	26

**IMPORTANT NOTE** – Both UPR Ponce and Ponce Health Sciences University must inform the colleague institution if changes arise in their curricular sequences at least six months before their entry into force in order to modify the binary agreement and that students are not affected.

# BACHELOR OF NATURAL SCIENCES WITH A CONCENTRATION IN BIOMEDICAL BINARY PROGRAM OF BACHELOR OF NATURAL SCIENCES AND DOCTOR OF PHILOSOPHY IN BIOMEDICAL SCIENCES (BS/PhD)

#### First Year

First Semester			Credits
BIOL 3011	General Biology I		4
BIOL 3013	Lab. General Biology I		0
CISO 3121	Introduction Social Sciences I		3
ESPA 3101	Basic Spanish I		3
MATE 3171	Pre Calculus		3
QUIM 3001	General Chemistry I		4
QUIM 3003	Lab. General Chemistry I		0
EDFU 3005	University Life		<u>0</u>
	Su	ıbtotal	17
Second Semester			Credits
BIOL 3012	General Biology II		4
BIOL 3014	Lab. General Biology II		0

CISO 3122 ESPA 3102 MATE 3172 QUIM 3002 QUIM 3004	Introduction Social Sciences II Basic Spanish II Precálculo II General Chemistry II Lab. General Chemistry II	Subtotal	3 3 4 0 17
MATE 3031	Calculus I	Subtotal	<u>4</u> 4
	Second Year		
First Semester  SPAIN 3015 ENGL 3101 ENGL 3113 QUIM 3031 QUIM 3033	Concentration course Grammar and Composition Basic English I Basic English Practice I Organic Chemistry I Lab. Organic Chemistry I	Subtotal	Credits  4  3  3  0  4  0  14
ENGL 3102 ENGL 3114 QUIM 3032 QUIM 3034 EDGE 4028	Concentration course Basic English II Basic English Practice II Concentration course Organic Chemistry II Lab. Organic Chemistry II Bioethics	Subtotal	3-4 3 0 4 4 0 3 17-18
	Third Year		
First Semester FISI 3011 FISI 3013	Concentration course University Physics I University Physics Lab I Elective in Humanities Directed elective Elective in Humanities	Subtotal	Credits 3-4 3 1 3 3 3 16-17
<b>Second Semester</b>			Credits
BIOL 3740	Concentration course Biometrics Concentration course		3-4 3 1

FISI 3012	University Physics II		3
FISI 3014	Lab. University Physics II		1
PSIC 3005	General Psychology		3
	Directed elective		<u>3</u>
		Subtotal	17 - 18

#### **Fourth Year**

#### **Ponce Health Sciencies University**

First Semester	·	Credits
BCH 615	Biomechemistry	4
BSG 773*	Scientific Technical Writing	3
	**Free electives	
	Student must take remaining credits	
	corresponding to the curricular sequence	
	in force of the first semester of the first year of the	
	PHSU up to 13 credits.	
	Subtotal	13

Second Semester		Credits
PHY 703	Physiology	<u>4</u>
	Student must take remaining credits	
	corresponding to the current curricular sequence	
	of the second semester of the first year of PHSU	
	up to 13 credits.	

Subtotal 13

#### **TOTAL CREDITS: 125-127**

- \* PHSU course to be validated at UPR Ponce for the third year course INGL 4021 Technical Writing.
- \*\* UPR Ponce will validate 12 to 14 credits with the best grade, taken at PHSU, as free electives according to the current curricular sequence corresponding to their first year of studies at that school. These credits are requirements to complete the baccalaureate degree.

The student must meet those additional credits to their baccalaureate to complete their first year of study at PHSU. See table with PHSU curriculum sequence, revised as of April 6, 2020.

The total number of credits upon completion of the requirements of the Bachelor of Natural Sciences with a concentration in Biomedical is 128-131.

Concentration Courses (25 credits)

Area of Speciality	Courses		Credits
A	BIOL 3018/3028	Developmental Biology	4/0

	BIOL 3791/3793	Human Biology III/Lab.	4/0
	BIOL 3792/3794	Human Biology IV/ Lab.	4/0
	PHY 703*	Physiology	4
	BIOL 4755/4756	Histology/Lab.	3
	BIOL 4758	Neurobiology	3
В	BIOL 3305/3306	Genetics/Lab.	4/0
	BIOL 4041	Human Genetics	3
С	BIOL 3907	Molecular Biology	3
	BIOL 3010/3020	Cell Biology. Molecular/Lab.	3/0
	BHC 615*	Biochemistry	4
D	BIOL 3705/07	Microbiology/Lab.	4/0
	BIOL 4056	Immunology	3
	BIOL 4375	Clinical Microbiology/Lab.	3/0
	BIOL 4426/4427	General Parasitology/Lab.	3/0
E	BIOL 3108	Undergraduate Research	2
	BIOL 3909	Seminar in Biology	1
	BIOL4925	Seminar	1
F	BIOL4925 BIOL 3115/3116		1 4/0
F		Seminar  General Ecology/Lab.  The Human Being and his Environmen	4/0

<sup>\*</sup>PHSU course to be validated by the UPR Ponce course described in the columns to the left. They must include at least one concentration course from each area (A-F) and complete 25 credits.

Free Electives – 12 credits

## **Directed Electives (6 credits)**

		Credits
CIPO 3011	Principles and Problems Political Science	3
CIPO 3035	Political System of Puerto Rico	3
CISO 3225	Moral Social	3
ECON 3005	Introduction to Economics I	3
SOCI 3275	Sociology of Behavior Variation	3
ANTR 3006	Sociocultural Anthropology	3
SOCI 3245	General Sociology	3
SOCI 3285	Group Dynamics	3
SOCI 3335	Social Problems	3
FILO 4471	Philosophy of Science 3	
Free Electives		
(12 credits)		

<sup>\*\*\*</sup>PHSU Biomedical Sciences PHD Program Curriculum

PHSU BIO	PHSU BIOMEDICAL SCIENCES PHD PROGRAM CURRICULUM		
COURSE	TITLE	CREDITS	
FIRST YEAR	AR SEMESTER I		
<b>BSG 774</b>	Practical Approach to Molecular Biology	2	
BCH 615	Biochemistry	4	
<b>BSG 773</b>	Scientific Technical Writing	3	
<b>BSG 610</b>	Introduction to Biomedical Research	1	
<b>BSG 775</b>	Seminar	1	
<b>BSG 671</b>	Laboratory Rotation	2	
FIRST YEAR	AR SEMESTER II		
PHY 703	Physiology	4	
MIC 601	Microbiology	4	
BSG 611	Advanced Topics in Biomedical Research	3	
BSG 672	Laboratory Rotation	2	
SUMMER	I		
ANA 615	Histology and Cell Biology	4	

**IMPORTANT NOTE** – Both UPR Ponce and Ponce Health Sciences University must inform the colleague institution if changes arise in their curricular sequences at least six months before their entry into force in order to modify the binary agreement so that students are not affected.

# BACHELOR OF NATURAL SCIENCES WITH CONCENTRATION IN BIOMEDICAL BINARY PROGRAM OF BACHELOR OF NATURAL SCIENCES AND DOCTORATE IN PHARMACY (BS/PharmD)

#### First Year

First Semester		Credits
BIOL 3011	General Biology I	4
BIOL 3013	Lab. General Biology I	0
INGL 3101	Basic English I	3
INGL 3113	Lab. Basic English I	0
ESPA 3101	Basic Spanish I	3
MATE 3171	Precálculo I	3
QUIM 3001	General Chemistry I	4
QUIM 3003	Lab. General Chemistry I	0
EDFU 3005	University Life	<u>0</u>
	Sub	total 17
Second Semester		Credits
BIOL 3012	General Biology II	4
BIOL 3014	Lab. General Biology II	0
INGL 3102	Basic English II	3
INGL 3114	Basic English Lab II	0
ESPA 3102	Basic Spanish II	3
MATE 3172	Precálculo II	3

QUIM 3002 QUIM 3004	General Chemistry II Lab. General Chemistry II	Subtotal	4 <u>0</u> 17
Summer MATE 3031	Calculation I	Subtotal	<u>4</u> 4
	Second Year		

First Semester			Credits
BIOL 3791	Human Biology III		4
BIOL 3793	Lab. Human Biology III		0
CISO 3121	Introduction to Social Sciences I		3
INGL 4021	Technical Writing		3
HUMA 3101	Enter. to Western Culture		3
QUIM 3031	Organic Chemistry I		4
QUIM 3033	Lab. Organic Chemistry I		<u>0</u>
		Subtotal	17

Second Semester			Credits
BIOL 3792	Human Biology IV		4
BIOL 3794	Lab. Human Biology IV		0
CISO 3122	Introduction to Social Sciences II		3
INGL 3191	Enter. to Verbal Communication		3
PSIC 3005	General Psychology		3
QUIM 3032	Organic Chemistry II		4
QUIM 3034	Lab. Organic Chemistry II		<u>0</u>
	<del>-</del>	Subtotal	17

Summer
ESPA 3015 Grammar and Composition 3
Subtotal 3

# **Third Year**

First Semester			Credits
BIOL 3305	Genetics		4
BIOL 3306	Lab. Genetics		0
FISI 3011	University Physics I		3
FISI 3013	University Physics Lab I		1
ECON 3005	Enter. to the Economy		3
HUMA 3102	Intro. a la Cultura Occidental II		3
BIOL 3115	Ecology		4
BIOL 3116	Lab. Ecology		<u>0</u>
		Subtotal	18

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<b>Second Semester</b>			Credits
BIOL 3705	Microbiology		4
BIOL 3740	Biometrics		3
BIOL 3909	Seminar in Biology		1
BIOL 4925	Seminar		
FISI 3012	University Physics II		3
FISI 3014	Lab. University Physics II		1
SOCI 3245	General Sociology		3
FILO 4028	Bioethics		<u>3</u>
		Subtotal	18

#### Fourth Year

#### **New Sotheastern University**

First Semester		<b>Credits</b>
PHRC 4820*	Biochemical Basis of Drug Therapy	2
PHC 4830*	Fundamentals of Pharmacodynamics	3
	**Free elective	4
	**Free elective	2
	Student must take the remaining appropriations corresponding to the curricular sequence in force of the first semester of the first year of the NSU up to 19 credits.	
	Subtotal	19
Second Semester	**Free elective	Credits
		4
	Student must take The remaining appropriations	
	corresponding to the current curricular sequence	
	of the second semester of the first year of NSU	

to achieve 19 credits.

#### **TOTAL CREDITS: 125-127**

Subtotal

The student must meet those additional credits to their baccalaureate to complete their first year of study at NSU. See table with the curricular sequence of the NSU.

The total number of credits at the end of the requirements of the Bachelor of Natural Sciences with a Concentration in Biomedical is 124.

Concentration Courses (25 credits)

19

<sup>\*</sup> Both courses (PRHC 4820 and PRHC 4830) will be validated by the UPRP course QUIM 4055 or BIOL 4545

<sup>\*\*</sup> UPR Ponce will validate 12 to 14 credits with the best grade, taken at NSU, as free electives according to the current curricular sequence corresponding to their first year of studies at that school. These credits are requirements to complete the baccalaureate degree.

Area of Speciality	Courses	Credits	
A	BIOL 3018/3028	Developmental Biology	4/0
	BIOL 3791/3793	Human Biology III/Lab.	4/0
	BIOL 3792/3794	Human Biology IV/ Lab.	4/0
	BIOL 3799	Physiology of the Human Body	3
	BIOL 4755	Histology	3
	BIOL 4756	Lab. Histology	0
	BIOL 4758	Neurobiology	3
В	BIOL 3305/3306	Genetics/Lab.	4/0
	BIOL 4041	Human Genetics	3
С	BIOL 3907	Molecular Biology	3
	BIOL 3010/3020	Cell Biology. Molecular/Lab.	3/0
	PHRC 4820* and	Biochemical Basis of Drug Therapy	2
	PHRC 4830*	Fundamental of Pharmacodynamics	3
D	BIOL 3705/3707	General Microbiology/Lab.	4/0
	BIOL 4056	Immunology	3
	BIOL 4375	Clinical Microbiology/Lab.	3/0
	BIOL 4426/4427	General Parasitology/Lab.	3/0
E	BIOL 3108	Undergraduate Research	2
	BIOL 3909	Seminar in Biology	1
	BIOL 4925	Seminar	1
F	BIOL 3115/3116	General Ecology/Lab.	4/0
	BIOL 3155	The Human Being and his Environmen	nt 3
	BIOL 4033	Biosocial and Environmental Issues	3

\*Recommended courses to meet NSU admission requirements
\*\* Both NSU courses to be validated by the course QUIM 4055 or BIOL 4545
They must include at least one concentration course from each area (A-F) and complete 25 credits.

## **Directed Electives (6 credits)**

	,	
		Credits
CIPO 3011	Principles and Problems Political Science	3
CIPO 3035	Political System of Puerto Rico	3
CISO 3225	Moral Social	3
ECON 3005*	Introduction to Economics I	3
SOCI 3275	Sociology of Behavior Variation	3
ANTR 3006	Sociocultural Anthropology	3
SOCI 3245*	General Sociology	3
SOCI 3285	Group Dynamics	3
SOCI 3335	Social Problems	3
FILO 4471	Philosophy of Science	3
ΨD 1 - 1	NCII - Inciai - maniana -	

<sup>\*</sup>Recommended courses to meet NSU admission requirements.

# Curriculum Doctor of Pharmacy (Pharm.D.)

	Curriculum Doctor of Pharmacy (Pharm.D.)			
Code	Course	Crs.		
	First Semester			
PHRC 4810	Patient Care Basics	1		
PHRC 4820	Biochemical Basis of Drug Therapy	3		
PHRC 4830	Fundamentals of Pharmacodynamics	2		
PHRC 4840	Dosage Forms and Drug Delivery	4		
PHRC 4850	Pharmaceutical Calculations	2		
PHRC 4861	Essentials of Professional Practice I	2		
PHRC 4871	Evidence-Based Practice I	1		
PHRC 4881	Leadership and Professional Development I	1		
PHRL 4811	Pharmacy Skills Development I	1		
PHRC 4891	Integrated Pharmacy Applications I	2		
	Second Semester	19		
PHRC 4910	Nonprescription Drugs and Self Care	3		
PHRC 4921	Individualized Drug Therapy	4		
PHRC 4931	Integrated Disease Management I	4		
PHRC 4962	Essentials of Professional Practice II	2		
PHRC 4972	Evidence-Based Practice II	2		
PHRC 4982	Leadership and Professional Development II	1		
PHRC 4912	Pharmacy Skills Development II	1		
PHRC 4992	Integrated Pharmacy Applications II	2		
		19		
	Total – First Year	38		

#### BACHELOR'S DEGREE IN PSYCHOLOGY AND MENTAL HEALTH

#### **Program Description**

This is an innovative program aimed at comprehensive and professional development. Graduates of the Bachelor's Degree in Psychology and Mental Health will work under the supervision of a licensed psychologist, psychiatrist, or other professional specializing in human behavior in mental health programs or agencies that provide psychological services. The Psychology and Mental Health concentration offers knowledge in psychological theories, methods of research and experimentation, and the application of psychological principles in the area of behavioral disorders. The graduate will be able to work as a counseling and short therapy technician in universities, schools, vocational rehabilitation centers, hospitals, government agencies, and private agencies.

The graduate will be able to write the reports required in the work scenarios. In addition, it is expected that they will be able to maintain adequate interpersonal relationships with clients, work team and community agencies.

The graduate will have the theoretical preparation and intervention skills necessary to identify situations that merit mental health services. It is expected that the ethical behavior of the graduate on a personal and professional level is expected in accordance with the ethical standards established by the psychology profession.

This concentration provides an interdisciplinary background for further advanced study in professions related to human behavior.

This program will last four (4) years divided into eight (8) semesters of university studies.

Graduates of the Bachelor's Degree in Psychology and Mental Health may be employed in the following service programs offered by the government of Puerto Rico and private agencies: Mental Health and Addiction Services Programs, Social Services, Family Services, Court System Programs, Social Security (Disability Determination Area), Department of Labor (Compensation Area), Youth Institutions and Counselors in CREA Homes, among others.

#### **Psychology and Mental Health Program Vision**

The Psychology and Mental Health Program aspires to prepare people with a broad and flexible perspective of the behavior and rehabilitation potential of the human being, with a liberal and inclusive education, with the necessary skills, a high degree of sensitivity and ethical commitment to the physical, social and emotional well-being of their fellow human beings.

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

This is an innovative program aimed at comprehensive and professional development. Graduates of the Bachelor's Degree in Psychology and Mental Health may work as a technician under the supervision of a licensed psychologist, psychiatrist, or other professionals specializing in human behavior, in mental health programs, universities, schools, hospitals, and agencies that provide psychological services.

This concentration offers knowledge in psychological theories, methods of research and experimentation, as well as in the application of psychological principles in the area of mental and emotional disorders of people. The graduate will have the necessary skills to write reports and will be able to maintain adequate interpersonal relationships with their clients, work team and community agencies.

They will have the technical, theoretical, and emotional preparation that will enable them to identify crisis situations and coordinate the necessary referrals. It is expected that the graduate's behavior on a personal and professional level will be as expected in accordance with the ethical guidelines established by the psychology profession.

This concentration has an interdisciplinary background to pursue advanced studies in professions related to human behavior.

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

The preparation of trained professionals to work as technicians in the field of human behavior and mental health sciences. Upon completion of their Baccalaureate, the Psychosocial Technician or Psychologist Assistant will be trained to work on the prevention and modification of the behavior of individuals who demonstrate to be at high risk of falling into dysfunctional behavior. They will work under the supervision of licensed human behavior and mental health professionals.

#### **General Objectives**

- 1. Contribute to the progress of psychology as a social and biological science by integrating knowledge from the natural and social sciences for the study and understanding of human behavior.
- 2. Promote understanding and respect for human dignity.
- 3. Contribute to the understanding and solution of the social problems facing the country.
- 4. To foster tolerance towards human beings who are different in terms of values, social, economic, political, religious and other conditions.
- 5. To encourage students' interest in their full and integral development as human beings and as professionals.
- 6. Develop social values and commitments.
- 7. Develop professional ethics.
- 8. Appreciate Puerto Rico's cultural heritage.

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#### **Specific objectives**

- 1. Acquire introductory knowledge about the social sciences, natural sciences, and humanities.
- 2. Acquire knowledge about research methods and designs, statistical analysis, and measurement instruments in psychology.
- 3. Know and apply the ethical standards in the research and practice of psychology, as established by the Codes of Ethics of the Board of Examiners of the Commonwealth, the Psychological Association of Puerto Rico and the American Psychological Association.
- 4. Acquire knowledge about the historical, social, and cultural reality of Puerto Rico.
- 5. Develop skills in the use of the computer and in its application in statistical analyses relevant to the Social Sciences.
- 6. Develop conversational English skills.
- 7. Develop analytical and critical thinking skills.
- 8. Develop skills for obtaining information through the Internet and other bibliographic resources.
- 9. Develop decision-making skills in interdisciplinary teams.
- 10. Develop skills for conceptualization and case management in work settings where mental health services are offered.
- 11. Develop research skills.
- 12. Acquire knowledge about interviewing techniques, group dynamics, interpersonal relationships, teamwork, and case management.
- 13. Gain knowledge of psychology and mental health in a variety of settings such as classrooms, human behavior labs, conferences, workshops, and practice centers.
- 14. Acquire oral and written communication skills for professional performance.
- 15. Understand the importance of ethics in the professional practice of psychology.

#### Profile of the Bachelor's Degree in Psychology and Mental Health

It is expected that upon completion of the Bachelor of Arts in Social Sciences program with a concentration in Psychology and Mental Health, graduates will possess:

1. Introductory knowledge and general culture around the Social Sciences.

- 2. Introductory knowledge and general culture around Psychology.
- 3. Introductory knowledge and general culture around the Natural Sciences.
- 4. Research skills in the area of social sciences, in general, and in psychology, in particular.
- 5. Knowledge and ability to apply ethical standards in research and professional practice in the social sciences, in general, and in psychology, in particular.
- 6. Knowledge about the historical, social and cultural reality of Puerto Rico.
- 7. Computer skills.
- 8. Knowledge and ability to apply statistical analysis tools relevant to the Social Sciences.
- 9. General knowledge about the use and scope of psychometric instruments and about the psychological assessment process.
- 10. Effective decision-making skills and self-management in interpersonal relationships in the context of interdisciplinary work teams.
- 11. Effective communication skills, both oral and written, in Spanish.
- 12. Effective communication skills, both oral and written, in English.
- 13. Critical analysis skills.
- 14. Conceptualization and case management skills through hands-on experiences in work scenarios.
- 15. Basic skills and general knowledge around interviewing techniques.
- 16. General knowledge around prevention and assisting in some aspects of treatment and rehabilitation of clients served by agencies that address specific mental health needs.
- 17. Skills in writing research reports, intervention reports, and case follow-ups.

# CURRICULUM BACHELOR OF ARTS IN SOCIAL SCIENCES WITH A CONCENTRATION IN PSYCHOLOGY AND MENTAL HEALTH STUDY PROGRAM

First Ser	mester		Credits
CISO	3121	Introduction to Social Sciences I	3
CIBI	3001	Fundamentals of Biology I	3
<b>ESPA</b>	3101	Basic Spanish I	3
<b>INGL</b>	3101	Basic English I	3
<b>INGL</b>	3113	Basic English I Laboratory	0
HUMA	3105	Socio-Juridical Foundation Western Culture	3
<b>MATE</b>	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
<b>ESPA</b>	3102	Basic Spanish II	3
<b>INGL</b>	3102	Basic English II	3
<b>INGL</b>	3114	Basic English II Laboratory	0
CISO	3225	Social Moral	3
<b>PSIC</b>	3003	Introduction to General Psychology	4
		Subtotal	19

#### **Second Year**

First Se	emester		Credits
SOCI	3245	Principles of Sociology	3
CISO	3155	Fundaments of Statistical Reasoning	3
<b>INGL</b>	3201 or	Guided Elective in English	3
	3221		
<b>ESPA</b>	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
<b>ESPA</b>		Guided Elective in Spanish	3
<b>INGL</b>	3191	Introduction to Speech Communication	3
		Conversational English	
		Free Elective	3
		Subtotal	18

## Third Year

		inira year	~
First Se	emester		Credits
PSIC	3016	Psychopathology	3
<b>PSIC</b>	3018	Physiological Psychology	3
SOCI	3265	Research Methods in the Social Sciences	3
SICI	4008	Principles of Electronic Data Processing	4
2101		Guided Elective	3
		Subtotal	16
		Subtour	10
Second	Semester		Credits
PSIC	3019	Clinical and Community Dayshology	3
		Clinical and Community Psychology	
PSIC	4006	Experimental Psychology	4
SICI	4010	Application of Statistical Analysis Through	3
		Computers	_
PSIC	4160	Intervention and Interview in Crisis	3
		Situations	
		Free Elective	3
		Subtotal	16
		Fourth Year	
First Se	emester		Credits
CISO	3227	Seminar: The Use and Abuse of Drugs in	3
CISC	322,	Puerto Rico	
<b>PSIC</b>	3017	Measurement of Personality	3
HIST	3241	History of Puerto Rico I	3
PSIC	4015	Practicum in Social Psychology	3
- 10 - 0		Guided Elective	3
		Subtotal	15
Second	Semester		Credits
PSIC	4097	Practicum in Clinical Psychology and Mental	3
1810	.0,,	Health	
HIST	3242	History of Puerto Rico II	3
11101	3212	Guided Elective	3
		Free Elective	3
		Subtotal	12
		C	
<b>a</b>		Concentration Requisites*	<b>a</b> 114
Cu		Title	Credits
PSIC	3006	Social Psychology	3
PSIC	3015	Theories of Personality	3
PSIC	3016	Psychopathology	3
<b>PSIC</b>	3017	Measurement of Personality	3 3
<b>PSIC</b>	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
1 510	1013	Theticular in bootar I sychology	3

<b>PSIC</b>	4160	Intervention and Interview in Crisis	3
		Situations	
PSIC	4097	Practicum in Clinical Psychology and	3
		Mental Health	
		Subtotal -	34

<sup>\*</sup>Students must obtain a grade not lower than a "C" in all concentration courses. Concentration courses with "D" or "F" grades must be repeated.

#### **Total of Credits: 132**

# Guided Electives\* First Semester

Cou	rse	Title	Credits
ANTR	3005	Principles of Anthropology	3
CIPO	3011	Principles in Political Science	3
<b>GERO</b>	3005	Gerontology Theory	3
<b>PSIC</b>	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
<b>ECON</b>	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

<sup>\*</sup>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.

# BACHELOR OF ARTS IN SOCIAL SCIENCES WITH CONCENTRATIONS IN PSYCHOLOGY AND MENTAL HEALTH AND FORENSIC PSYCHOLOGY WITH AN EMPHASIS IN REHABILITATIVE SERVICES

#### **Program Description**

The Bachelor's Program in Psychology and Mental Health and Forensic Psychology with an Emphasis in Rehabilitation Services is an innovative one, as it is the only program with an emphasis at the University of Puerto Rico oriented towards the comprehensive and professional development of people interested in obtaining academic preparation in the field of rehabilitation. The main purpose of the Program is to train qualified people to work in the multidisciplinary field of rehabilitation.

Graduates of the Program will be trained to contribute to the development of the maximum abilities of individuals with disabilities. They will have a high degree of commitment to the rehabilitation of people with a variety of disabilities: physical, sensory, cognitive or emotional. They will assist people with disabilities in achieving independent living and their integration into the workforce.

Graduates of the program will be able to work as technicians in different agencies in both the public and private sectors. Those interested will be able to follow a curricular sequence that qualifies them to become certified as substance counselors. They will also be able to continue studies leading to a Master's Degree in Counseling or another specialty within the Social Sciences.

The duration of the program for full-time students will be four (4) years, divided into eight (8) semesters of undergraduate study.

Graduates of the program can offer their services in a variety of settings or locations. These settings include the following: independent living facilities, private rehabilitation agencies, hospitals and mental health centers, Mental Health and Rehabilitation Services Administration (ASSMCA), Department of Labor and Human Resources, Department of the Family, Department of Education, public and private universities, and community-based organizations that provide services to people with disabilities, such as SER from Puerto Rico, among others.

# Vision of the Emphasis on Rehabilitative Services in the Bachelor of Arts in Social Sciences Programs with concentrations in Psychology and Mental Health and Forensic Psychology

The Area of Emphasis on Rehabilitative Services in the Bachelor of Arts in Social Sciences Programs with a concentration in Psychology and Mental Health and Forensic Psychology aspires to prepare individuals with a broad and flexible perspective of human behavior and rehabilitation potential; with a liberal and integrative education, the necessary competencies, a high degree of sensitivity and ethical commitment to the physical, social and emotional well-being of their peers, especially those who have disabilities and different physical and/or emotional capacities.

Mission of the Emphasis on Rehabilitative Services in the Bachelor of Arts in Social Sciences Programs with concentrations in Psychology and Mental Health and Forensic Psychology The Area of Emphasis on Rehabilitative Services in the Bachelor of Arts in Social Sciences Programs with concentrations in Psychology and Mental Health and Forensic Psychology is an innovative program at the undergraduate level in the public system of Higher Education, aimed at preparing professionals to provide excellent rehabilitation services to people with physical disabilities, sensory, cognitive, or emotional. Through the integration of theory and practice, graduates with an emphasis in Rehabilitation Services will promote the effective inclusion of people with disabilities in society, based on a conceptual framework characterized by openness to diversity, respect for human rights, and a social commitment to the well-being of their fellow human beings.

#### Goals of the Emphasis on Rehabilitative Services in Baccalaureate Programs

The goals of the Emphasis on Rehabilitative Services in Baccalaureate Programs are as follows:

- 1. Prepare professionals at the undergraduate level in the field of rehabilitation.
- 2. Promote the integration of theory and practice through research and field experiences.
- 3. Train professionals to advocate for the effective inclusion of people with disabilities in society.
- 4. Promote a comprehensive academic preparation that develops the ethical, aesthetic, ontological, epistemic and civic dimensions of the human being; guided by the principles of openness to diversity, respect for human rights and a commitment to the well-being of others.

#### Objectives of the Emphasis on Rehabilitative Services in Baccalaureate Programs

- 1. Provide students with the skills necessary to identify the residual capacities of a person with physical, sensory, cognitive, and emotional impairments.
- 2. To provide students with the necessary skills to develop a service plan aimed at maximizing the capabilities of a person with disabilities so that they can integrate into the different spheres of society.
- 3. Provide students with the skills necessary to assist in conducting screening and follow-up interviews for case management and other functions related to the provision of rehabilitation services.
- 4. Expand students' repertoire of strategies needed to collaborate with rehabilitation counselors and other professionals in the field in identifying services, resources, and jobs available to a person with physical, sensory, cognitive, and emotional impairments.
- 5. Establish in students general knowledge about the diversity of physical, sensory, cognitive and emotional impairments.
- 6. Establish in students the repertoire of intervention strategies to address the specific needs of individuals with physical, sensory, cognitive, and emotional impairments so that they

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- can serve as rehabilitation counselor assistants, human and social service assistants, or to pursue graduate studies in the field.
- 7. Promote through practice experiences and the application of concepts the development of therapeutic skills that transmit sensitivity, empathy and acceptance, both in an individual and group relationship.
- 8. Provide students with the skills necessary to assist individuals with physical, sensory, cognitive, and emotional disabilities in problem solving, career decision-making, or job placement.
- 9. Promote the development of interpersonal skills in students to participate in case discussions in the context of inter- and multidisciplinary work teams.
- 10. To ensure that students apply the academic knowledge acquired, either through research projects or through experiences in work scenarios, which allow them to integrate the theoretical and practical aspects, ethical norms and legal foundations of their training in the field of rehabilitation.

### Graduate Profile Area of Emphasis in Rehabilitation Services of the Bachelor's Degree in **Psychology Programs**

The graduate of this area of emphasis, within the baccalaureate programs in psychology, will possess the following characteristics:

- 1. Ability to identify the skills essential for the person with physical, sensory, cognitive or emotional impairments to maximize their potential, achieve independent living and be able to enter the labor market.
- 2. Mastery of the different components of the screening interview, to identify the training and employment resources available in the community and knowledge about the systems of service delivery and management of the specialized team, to carry out their functions.
- 3. Mastery of the skills necessary for effective decision-making and appropriate interpersonal relationships to participate in case discussions in the context of interdisciplinary work teams, articulated to address the needs, conditions and life circumstances, including crisis situations, of the person with physical, sensory, cognitive or emotional disabilities.
- 4. Have the skills of oral and written communication in Spanish and English.
- 5. Have the skills to write reports and documents that are requested.
- Knowledge about the use, scope of results, and content of psychological measurement and 6. vocational assessment reports necessary for the rehabilitation process.
- Mastery of theory and practice on knowledge and applications of ethical norms and the 7. legal foundations of professional practice, when involved in research projects, in the

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formulation of public policy or as an agent of social change in the administration of services.

# PSYCHOLOGY AND MENTAL HEALTH STUDIES PROGRAM WITH EMPHASIS ON REHABILITATION FIRST YEAR

First Sen	nester			
Cou	ırse	Title		Credits
CISO	3121	Introduction to Social Sciences I		3
CIBI	3001	Fundamentals of Biology I		3
<b>ESPA</b>	3101	Basic Spanish I		3
HUMA	3105	Fund. Socio-Legal of Western Culture		3
<b>INGL</b>	3101	Basic English I		3
<b>INGL</b>	3113	Basic English Lab I		0
<b>MATE</b>	3001	Introductory Mathematics		3
			Subtotal	18
Second S	emester			
CISO	3122	Introduction to Social Sciences II		3
CISO	3225	Social Morals		3
CIBI	3002	Fundamentals of Biology II		3
<b>ESPA</b>	3102	Basic Spanish II		3
<b>INGL</b>	3102	Basic English II		3
<b>INGL</b>	3114	Basic English Lab II		0
<b>PSIC</b>	3003	Introduction to General Psychology		4
		-	Subtotal _	19

#### **SECOND YEAR**

mester			
ırse	Title		Credits
3155	Fund. of Statistical Reasoning		3
3015	Grammar and Composition		3
3201 or	Elective Conducted in English		3
3221			
3245	Principles of Sociology		3
	Free Elective		3
	Free Elective		3
		Subtotal	18
		Subidial	10
	3155 3015 3201 or 3221	3155 Fund. of Statistical Reasoning 3015 Grammar and Composition 3201 or Elective Conducted in English 3221 3245 Principles of Sociology Free Elective	3155 Fund. of Statistical Reasoning 3015 Grammar and Composition 3201 or Elective Conducted in English 3221 3245 Principles of Sociology Free Elective Free Elective

Second S	emester		
<b>ESPA</b>		Elective directed in Spanish	3
<b>ENGL</b>	3191	Intr. to Speech Comm: Conversation Engl.	3
PSIC	3006	Social psychology	3
PSIC	3015	Theories of Personality	3
PSIC	3025	Human Development	3

REHA	3005	Enter. to Rehabilitation	Subtotal	3 18
		THIRD	YEAR	
First Sem	ester			
Course			Title	Credits
PSIC	3016	Psychopathology		3

THE BUIL	CSICI		
Course		Title	Credits
PSIC	3016	Psychopathology	3
PSIC	3018	Physiological Psychology	3
REHA	3006	Psychosocial Aspects of People with Imp.	3
<b>REHAB</b>	3007	Medical Aspects of Physical Dysfunction	3
SOCI	3265	Methods of Invest. in the Social Sciences	3
		Subtotal	15
Second Se	emester		
PSIC	4006	Experimental psychology	4
PSIC	4160	Interview and Interv. in Crisis Situations	3
<b>REHAB</b>	3115	Job Placement	3
SICI	4010	Application of Statistical Analysis by Comp.	3
		Free Elective	3
		Subtotal	16

## **FOURTH YEAR**

		TOCKIII IEMK	
First Seme	ester		
Course		Title	Credits
CISO	3227	Drug Use and Abuse Seminar	3
HIST	3241	History of Puerto Rico I	3
PSIC	3017	Personality Measurement	3
PSIC	4015	Practice in Social Psychology	3
REHA	4005	Fundamentals of Counseling and Rehabilitation	3
		Subtotal	15
Second Ser	mester		
HIST	3242	History of Puerto Rico II	3
PSIC	4097	Practice in Clinical Psychology	3
		Directed elective	3
		Free Elective	3
		Subtotal	12

# **Total of Credits: 131**

# **DIRECTED ELECTIVES\***

First Seme	ster		
Course		Title	Credits
EDES	4006	Nature and Needs Seminar for Disabled Children	3
GERO	3005	Fundamentals of Gerontology	3

PREH	4990	Sign Language I	3
PSIC	4095	Counseling and Short Therapies	3
PSIC	3305	Couple and Family Relations (Both semesters)	3
<b>REHAB</b>	3105	Measurement of Evaluation in Rehabilitation	3
SOCI	3277	Women: Society and Rights	3
		Subtotal	3
Second Se	mester		
EDES	3205	Technological Assistance	3
PSIC	3019	Clinical psychology	3
PSIC	3076	Neurophysiological Aspects of Drug Use and Abuse	3
PSIC	3116	Industrial Psychology	3
PSIC	4155	Behavior Analysis	3
PREH	4990	Sign Language II	3
		Subtotal	3

<sup>\*</sup>Elective Courses in Social Sciences for Transfer Program: ANT 3006, COOP 3005, CIPO 3025, CIPO 3035, GEOG 3155, 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 and SOCI 3335.

# FORENSIC PSYCHOLOGY STUDY PROGRAM WITH EMPHASIS ON REHABILITATION FIRST YEAR

First Sen	nester			
Codification		Title		Credits
CISO	3121	Introduction to Social Sciences I		3
CIBI	3001	Fundamentals of Biology I		3
<b>ESPA</b>	3101	Basic Spanish I		3
<b>ENGL</b>	3101	Basic English I		3
<b>ENGL</b>	3113	Basic English Speaking Practice I		0
HUM	3105	Fund. Socio-Legal of Western Culture		3
<b>MATE</b>	3001	Introductory Mathematics		3
			Subtotal	18
Second S	Semester			
CISO	3122	Introduction to Social Sciences II		3
CIBI	3002	Fundamentals of Biology II		3
<b>ESPA</b>	3102	Basic Spanish II		3
<b>ENGL</b>	3102	Basic English II		3
<b>ENGL</b>	3114	Basic English Practice II		0
CISO	3225	Moral Social		3
PSIC	3003	Introduction to General Psychology		4
		, ci	Subtotal	19

## SECOND YEAR

First Sen	a o a t o m	SECOND LEAR	
		Fund of Statistical December	2
CISO	3155	Fund. of Statistical Reasoning	3
ESPA	3015	Grammar and Composition	3
ENGL	3201 or	Elective Conducted in English	3
DCIC	3221	Enten to Engage Deschalance	2
PSIC	3205	Enter. to Forensic Psychology	3
SOCI	3245	Principles of Sociology	3
		Free Elective	3
		Subtotal	18
Second S	omoston		
ESPA	emester	Elective directed in Spanish	3
ENGL	3191	Intr. to Speech Comm: Conversation Engl.	3
PSIC	3006	Social psychology	3
		- · · · · · · · · · · · · · · · · · · ·	
PSIC	3015	Theories of Personality	3
PSIC	3025	Human Development	3
REHAB	3005	Enter. to Rehabilitation	3
		Subtotal	18
F. 4 C	4	THIRD YEAR	
First Sen			2
JUST	3005	Introduction to the Criminal Justice System	3
PSIC	3016	Psychopathology	3
REHAB	3006	Psychosocial Aspects of People with Imp.	3
REHAB	3007	Medical Aspects of Physical Dysfunction	3
SOCI	3265	Methods of Invest. in the Social Sciences	3
		Subtotal	15
C1 C			
Second S		TP241 -	C 1:4
	cación	Title	Credits
PSIC	4006	Experimental psychology	4
PSIC	4160	Interview and Interv. in Crisis Situations	3
REHAB	3115	Job Placement	3
SICI	4010	Application of Computer Statistical Analysis	3
		Free Elective	3
		Subtotal	16
		FOURTH YEAR	
First Sem			
CISO	3227	Drug Use and Abuse Seminar	3
HIST	3241	History of Puerto Rico I	3
REHAB	4005	Fund. of Counseling and Rehabilitation	3
		Directed elective	3
		Free Elective	3

		Subtotal	15
Second Se	mester		
HIST	3242	History of Puerto Rico II	3
<b>REHAB</b>	4006	Rehabilitation Services Internship	3
JUST	3205	Fund. of Law in the Criminal Justice System	3
		Free Elective	3
		Subtotal	12

# **Total of Credits: 131**

# **DIRECTED ELECTIVES\***

### **First Semester**

Codificación		Title	Credits
<b>EDES</b>	4006	Nature and Needs Seminar for Disabled Children	3
		Second Semester	
<b>EDES</b>	3205	Technological Assistance	3
PSIC	3076	Neurophysiological Aspects of Drug Use and Abuse	3
<b>PSIC</b>	3116	Industrial Psychology	3
<b>PSIC</b>	3305	Relationships and Family	3
<b>PSIC</b>	4155	Behavior Analysis	3
PREH	4990	Sign Language II	3
		Subtotal	3

#### BACHELOR OF ARTS IN SOCIAL SCIENCES WITH A CONCENTRATION IN FORENSIC PSYCHOLOGY

#### **Program Description**

This is an innovative program aimed at the comprehensive and professional development of people interested in obtaining an academic preparation that allows them to occupy positions such as: Addiction Services Technicians, Socio-Penal Technicians, Community Technicians, Psychosocial Technicians, Case Managers and Psychologist Assistants. This professional will be prepared with essential knowledge for the proper management of cases so that they can serve as an agent of change and confront social problems. Traditional baccalaureates do not include this preparation in their curricula.

The main purpose of the Program is to prepare an ethical and well-trained human behavior specialist to contribute to the rehabilitation of inmates in correctional institutions, with patients in psychiatric hospitals, clients of Drug Addiction Services centers, in Family Services and other public and private institutions that offer rehabilitation and mental health services.

Concentration in Forensic Psychology will also provide an appropriate interdisciplinary background for students who wish to pursue careers in psychology, social work, law, and other criminal justice-related professions.

This program will last four (4) years divided into eight (8) semesters of university studies. Graduates of the Bachelor's Degree in Forensic Psychology may be employed in the following programs and services offered by the government of Puerto Rico and private agencies: Correction and Rehabilitation System Programs, Mental Health Program and Services Against Addiction and Alcoholism, Courts of Justice, Social Security Disability Determination Area, the Department of Labor (Compensation Determination Area), Youth Institutions, among others.

#### Vision of the Program in Forensic Psychology

To prepare people with a broad and flexible perspective of human behaviour and rehabilitation potential, with a liberal and inclusive education, the necessary skills, a high degree of sensitivity and ethical commitment to the physical, social and emotional well-being of their fellow human beings.

#### Mission of the Program in Forensic Psychology

The Bachelor's Degree in Forensic Psychology, which is unique in Puerto Rico, is based on providing students with the opportunity to obtain the theoretical and practical knowledge to practice a profession that will meet service needs in the Criminal Justice System and other rehabilitation and mental health programs.

This is an innovative program aimed at the comprehensive and professional development of people interested in obtaining academic preparation as Addiction Services Technicians, Sociopenal Technicians, Community Technicians and Psychosocial Technicians. This professional will be prepared with essential knowledge for the proper management of cases so that they can serve as an agent of change and confront social problems.

The main purpose of the program is to prepare a human behavior professional who will contribute to the rehabilitation of inmates in Correctional Institutions and Juvenile Institutions. You will also be able to offer services to patients in Outpatient Clinics and Psychiatric Hospitals, to clients in addiction treatment and rehabilitation programs, and in those of the Department of Family Services. In addition, you will be able to work in the prevention phase in other government agencies.

#### **Program Goal in Forensic Psychology**

The main goal of the Baccalaureate is the preparation of a professional who will work as a technician in the field of mental health.

Upon completion of their Baccalaureate degree, this professional will be trained to prevent and collaborate in the prevention and modification of the behavior of people who demonstrate a high risk of falling into deviant behavior. You will work under the supervision of psychologists, psychiatrists, or other licensed professionals in the field of human behavior.

#### **Objectives**

#### **General Objectives**

- 1. Contribute to the progress of psychology as a social and biological science by integrating knowledge from the natural and social sciences for the study and understanding of human behavior.
- 2. Promote understanding and respect for human dignity.
- 3. Contribute to the understanding and solution of the social problems facing the country.
- 4. To foster tolerance towards human beings who are different in terms of values, social, economic, political, religious and other status.
- 5. To encourage students' interest in their full and integral development as human beings and as professionals.
- 6. Develop social values and commitments.
- 7. Develop professional ethics.
- 8. Appreciate Puerto Rico's cultural heritage.

#### **Specific Objectives**

- 1. Acquire introductory knowledge about the social sciences, natural sciences and humanities.
- 2. Acquire knowledge about research methods and designs, statistical analyses, and measurement instruments in psychology.

- 3. Know and apply the ethical standards in the research and practice of psychology, as established by the Codes of Ethics of the Board of Examiners of the Commonwealth, the Psychological Association of Puerto Rico and the *American Psychological Association*.
- 4. Acquire knowledge about the historical, social, and cultural reality of Puerto Rico.
- 5. Develop skills in the use of the computer and in its application in statistical analyses relevant to the Social Sciences.
- 6. Develop conversational English skills.
- 7. Develop analytical and critical thinking skills.
- 8. Develop skills for obtaining information through the Internet and other bibliographic resources.
- 9. Develop decision-making skills in interdisciplinary teams.
- 10. Develop skills for the conceptualization and management of cases in work scenarios related to the application of psychology to the legal system.
- 11. Develop research skills.
- 12. Acquire knowledge about interviewing techniques, group dynamics, interpersonal relationships, teamwork, and case management.
- 13. Acquire knowledge of psychology and the legal system in a variety of settings such as classrooms, human behavior labs, conferences, workshops, and practice centers.
- 14. Acquire oral and written communication skills for professional performance.
- 15. Understand the importance of ethics in the professional practice of psychology.

#### **Profile of the Forensic Psychology Graduate**

It is expected that upon completion of the Bachelor of Arts in Social Sciences Program with a concentration in Forensic Psychology, graduates will possess:

- 1. Introductory and general cultural knowledge about the Social Sciences.
- 2. Introductory knowledge and general culture around Psychology.
- 3. Introductory knowledge and general culture around the Natural Sciences.
- 4. Research skills in the area of Social Sciences, in general, and psychology, in particular.
- 5. Knowledge and ability to evaluate and apply ethical standards in research and professional practice in the social sciences, in general, and in psychology, in particular.

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- 6. Cultural knowledge about the historical, social, and cultural reality of Puerto Rico.
- 7. Computer skills.
- 8. Knowledge and ability to apply statistical analysis tools relevant to the Social Sciences.
- 9. General knowledge about the use and scope of psychometric instruments and about the psychological assessment process.
- 10. Effective decision-making skills and self-management in interpersonal relationships in the context of interdisciplinary work team(s).
- 11. Effective communication skills, both oral and written, in Spanish.
- 12. Effective communication skills, both oral and written, in English.
- 13. Critical analysis skills.
- 14. Conceptualization and case management skills through practical experiences in work scenarios, such as: Psychosocial Treatment Centers, units of the Correction System and dependencies of the Court Administration, among others.
- 15. Basic skills and general knowledge around interviewing techniques.
- 16. General knowledge about mental health prevention; assist in some aspects of the treatment and rehabilitation of clients served by the Criminal Justice System.
- 17. Skills in writing research reports, progress reports, and/or inmate reclassification reports.

# CURRICULUM BACHELOR OF ARTS IN SOCIAL SCIENCES WITH A CONCENTRATION IN FORENSIC PSYCHOLOGY

#### STUDY PROGRAM

		First Year	
First Sem	Credits		
CISO	3121	Introduction to Social Sciences I	3
CIBI	3001	Fundamentals of Biology I	3
<b>ESPA</b>	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 Sem	ester		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 S	lomoston		Credits
PSIC PSIC	3006	Social Devahology	3
rsic	3000	Social Psychology Research Methods in the Social	3
PSIC	3015	Sciences	3
PSIC	3025	Human Development	3
<b>ESPA</b>		Guided Elective	3
INGL	3191	Intro. to Speech Com. Conversation	3
		English	2
		Free Elective	3
		Subtotal	18
		Fourth Year	
First Sea	mester		<b>Credits</b>
CISO	3227	Seminar: The Use and Abuse of Drugs ir Puerto Rico	3
HIST	3241	History of Puerto Rico I	3
PSIC	3155	Psychology and the Law	3
1 SIC	3133	Guided Elective	3
		Free Elective	3
		Subtotal	15
			Credits
	Semester		
HIST	3242	History of Puerto Rico II	3
JUST	3205	Foundation of Rights within Justice System	3
PSIC	4415	Practical to Forensic Psychology	3
1510	1113	Guided Elective	3
		Guided Literiae	3

**Subtotal** 

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#### **Total of Credits: 132**

First Sem	ester	*Guided Electives	Credits
CIPO	3011	Dringinles in Political Science	2
ECON	3005	Principles in Political Science Introduction to Economics	3
GERO	3005	Gerontology Theory	3 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 3 3
SOCI	3335	Social Disorganization	3
Second Semester			
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	
SOCI	3025	Violence of Sociology	3
SOCI	3275	Sociology of the Community	3
2001	02,0		3
		Subtotal	3

<sup>\*</sup>Elective Courses in Social Sciences for the Transfer Program: ANTR 3006,COOP 3005, CIPO 3025, CIPO 3035, GEOG 3155, 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, and SOCI 3335.

#### BACHELOR'S DEGREE IN ARTS IN ELEMENTARY EDUCATION

#### **Program Description**

The UPR-Ponce Department of Education is responsible for the training of high-quality teachers. It has a Bachelor's Program in Elementary Education at levels K-3 and 4-6 of proven excellence, in which candidates have remained for the last five years in the first quarter in the Teacher Certification Tests (PCMAS) and the only one in Puerto Rico where the Department of Education of the Commonwealth of Puerto Rico certifies graduates of the program at two levels. The Elementary Education Program aims to train professionals, education leaders at the K-3 and 4-6 levels who can perform successfully both in the multicultural context of Puerto Rico and even internationally.

The mission of the Program is to develop education professionals with mastery of pedagogical knowledge and the subjects it teaches, so that they can reflect and self-evaluate their performance, capable of building, sharing and transferring knowledge to become leaders in education. Since October 2008, the Bachelor of Arts Program in Elementary Education has been accredited by NCATE, currently the *Council for the Accreditation of Educator Preparation* (CAEP). Through this accreditation, our graduates work in the United States with the revalidation of teachers from Puerto Rico.

#### Vision

The Bachelor of Arts Program in Elementary Education at the University of Puerto Rico at Ponce is committed to the professional development of the teacher candidate and envisions it as the center of its educational management. It situates the teacher candidate as a constantly developing learner and builder of their knowledge that promotes effective learning in students at levels K-3 and 4-6. It conceives the teacher candidate as a social entity with ethical, aesthetic, civic and moral values; product and part of all the evolutionary processes of society. It aspires to strengthen in the teacher candidate, through a humanistic cognitive approach, the cognitive, affective and intellectual dimensions, the development of pedagogical knowledge and of the various disciplines, to promote the quality of teaching in the different educational scenarios.

#### Mission

The mission of the Bachelor of Arts in Elementary Education program is to train future education professionals to be leaders who contribute to social transformation in educational settings and the strengthening of a democratic society. They will be able to learn how to learn, learn to teach, learn to undertake, learn to be, and educate in a dynamic and effective way, taking into consideration the diversity of their learners.

#### **Purpose**

The Education Program at the University of Puerto Rico at Ponce aims to train professionals, education leaders at the K-3 and 4-6 levels who can perform successfully both in the multicultural context of Puerto Rico and even internationally.

#### Goals

The Bachelor's Degree Program in Elementary Education at the University of Puerto Rico at Ponce aims to achieve, from a comprehensive perspective, the following goals:

- 1. To train the cognitive and affective dimensions of teacher candidates, with knowledge of the content and mastery of the subjects and their integration.
- 2. Train teacher candidates with mastery of the pedagogical content and the various strategies, methodologies and means of assessment.
- 3. To train teacher candidates to reflect and be critical and analytical using research and creation.
- 4. To train teacher candidates who demonstrate in their actions the disposition, ethical, moral and civic values, collaboration, dialogue and teamwork.
- 5. To train teacher candidates capable of facing new educational challenges that integrate technology and information skills into the teaching and learning processes.
- 6. Develop teacher candidates with respect, knowledge, and acceptance of the diversity and physical, emotional, and cognitive differences present in educational environments.

#### **Objectives**

- 1. Elementary Education Program teacher candidates will demonstrate knowledge of the student, their development, and the teaching and learning processes.
- 2. Elementary Education Program teacher candidates will demonstrate appropriate use of various assessment strategies to learn and assess student learning.
- 3. Elementary Education Program teacher candidates will demonstrate knowledge of diverse learning styles and strategies to address students' cognitive, physical, social, and emotional differences.
- 4. Elementary Education Program teacher candidates will demonstrate effective social interaction in a context of collaboration and dialogue with students, family, and the school community.
- 5. Elementary Education Program teacher candidates will demonstrate knowledge of the content they teach.
- 6. Elementary Education Program teacher candidates will demonstrate the development of reflective, critical, and creative thinking, research skills, and information-seeking.
- 7. Elementary Education Program teacher candidates will effectively plan instruction.

- 8. Elementary Education Program teacher candidates will demonstrate a commitment to personal and professional development, willingness to self-study, independent study, adapt to change, and effectively face challenges.
- 9. Elementary Education Program teacher candidates will demonstrate knowledge and effective use of learning technology resources.
- 10. Elementary Education Program teacher candidates will demonstrate proficiency in language and communication skills.

#### **Graduate Profile**

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

- 1. Knowledge of the student and their development, and of the teaching and learning processes.
- 2. Appropriate use of various assessment strategies to learn and to assess student learning.
- 3. Knowledge of diverse learning styles and strategies to address students' cognitive, physical, social, and emotional differences.
- 4. Effective social interaction in a context of collaboration and dialogue with students, family, and the school community.
- 5. Knowledge of the content they teach.
- 6. Development of reflective, critical and creative thinking, research skills.
- 7. Effective teaching planning.
- 8. Commitment to personal and professional development, willingness to self-learn, independent study, adapt to change, and effectively face challenges.
- 9. Knowledge and effective use of technological resources for learning and information search
- 10. Proficiency in language and communication skills.

#### STUDY PROGRAM

#### First Year

		First Semester	Credits
<b>ESPA</b>	3101	Basic Spanish I	3
<b>INGL</b>	3101	Basic English I	3
<b>INGL</b>	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
<b>EDFU</b>	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		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 Se	mostor	Second Tear	Credits
riist oc	mester		Citaits
EDPE	3058	Teaching Grammar at the Elementary Level	3
INGL	3021	Oral and Written English I	3
CIIN	1001	Integrated Science I	3
CIIN	1002	Integrated Science I Laboratory	1
<b>EDPE</b>	4034	Teaching and Integration of Universal Design	3
		to the Educational Process	
EDPE	3001	Linguistic Notions of Content and Methods	3
		for the Teaching of Spanish in the Elementary	
		School I	
EDFU	3007	Social Foundations of Education	3
		Subtotal	19
		Second Semester	Credits
EDPE	4040	Project Based Learning	3
EDPE	4033	Teaching and Learning Integrating the	3
LDIL	7033	Approach of Science, Technology Engineering	3
		and Mathematics	
CIIN	3003	Integrated Science II	3
CIIN	3004	Integrated Science II Laboratory	1
EDPE	3002	Linguistic Notions of Content and Methods	3
	•	for the Teaching of Spanish in the Elementary	
		School II	
<b>EDES</b>	4006	Nature and Needs of Exceptional Learners	3
		Cubtatal	10

Subtotal

#### **Third Year**

		Third Year	
First Se	mester		Credits
EDPE	3010	Teaching Social Studies in the Elementary School	3
EDPE	3041	Science in Elementary School	3
EDPE	3008	Assessment in Elementary School	3
EDFI	3645	First Aid	2
HIST	3245	Compendium of History of Puerto Rico	3
		Free Elective	3
		Subtotal	17
	Semester		Credits
EDFU	4007	Research Principles	3
TEED	3008	Introduction to Educational Technology	3
EDPE	3011	Teaching Mathematics in Elementary School	3
EDPE	3325 о	Creative Skills or Artistic Experiences	
<b>EDPE</b>	3097	Teaching Music in Elementary School	3
<b>EDPE</b>	3116	Teaching Sciences in Elementary School	
		Free Elective	3
		Subtotal	18
		Fourth Year	
First S	emester		Credits
EDPE	4335	Curriculum and Teaching in the Elementary School Seminar	3
TEED	4018	Introduction to Computers in Education	3
EDPE	3115	Teaching Mathematics in Elementary School	3
		Free Elective	3
			3
		Free Elective	3
		Subtotal	15
		·	-
EDPE	4016	Subtotal	
EDPE HIST	4016 3111 o	Subtotal Second Semester	15
		Subtotal  Second Semester  Educational Practice	15
HIST	3111 o	Subtotal  Second Semester  Educational Practice Physical Education Students Special Needs  Philosophical Foundations of Education	15 6 3 3
HIST HIST	3111 o 3112	Subtotal  Second Semester  Educational Practice Physical Education Students Special Needs	15 6 3

#### BACHELOR'S DEGREE IN OFFICE SYSTEMS AND TECHNOLOGY ADMINISTRATION

#### **Brief Description of the Program**

The Bachelor's Degree in Office Systems Management and Technology focuses on the training of highly qualified administrative assistants, proficient in the use of technology and cutting-edge procedures for office administration, according to the needs of the business world. The Program responds to the vision, mission, and goals of the University of Puerto Rico at Ponce. Its main purpose is to meet the needs of constituents, such as: students and employers of the southern region of Puerto Rico. It is a program that is kept up-to-date in response to the constant changes that arise in the business environment and the job market. It is a program accredited by ACBSP (Accreditation Council for Business Schools and Programs).

#### Mission

The Bachelor's Program in Office Systems Administration and Technology is the only public system higher education program in the southern region of Puerto Rico that trains professionals specialized in office administration and technologies.

The Program promotes the holistic training of students through a comprehensive education and the acquisition and development of the professional and personal skills required to work, face-to-face or virtually, in organizations with dynamic and technological work environments. It also contributes to their ethical, civic, cultural and social formation.

The Program makes it possible to meet the demand of the labor market and contributes to the socio-economic development of the country and the globalized world through the training of highly competent administrative professionals.

#### Vision

Prepare the most qualified office administrative professional in the southern region of Puerto Rico.

#### Goals

To achieve the mission of the Program, the following goals were established.

- 1. Develop the administrative skills necessary for the administrative professional to be able to perform effectively in the company.
- 2. Provide students with a holistic education that enables them to successfully function as administrative professionals.
- 3. Train students with emerging technological tools that allow them to perform in a work environment within a globalized economy.
- 4. Contribute to the training of administrative professionals with ethical and civic values.

5. Contribute to meeting the needs of companies for administrative professionals specialized in modern office systems.

#### **Objectives**

The goals of the Bachelor of Arts in Office Systems Administration and Technology Program are for students to achieve:

- 1. Strengthen communication skills in Spanish and English, both oral and written.
- 2. Develop interpersonal relationship and teamwork skills.
- 3. Apply logical and critical thinking in problem solving and decision-making.
- 4. Develop the necessary knowledge to use technological resources in the company in a safe, legal and ethical manner.
- 5. Develop qualities and personality traits that contribute to their success as professionals and as citizens.
- 6. Develop the administrative competencies, skills, attitudes and qualities that enable them to perform efficiently in various business scenarios.
- 7. Exhibit ethical values in the solution of personal and work dilemmas.
- 8. Demonstrate social and environmental responsibility.
- 9. Apply research skills in work-related situations.
- 10. Encourage creativity, innovation, entrepreneurship and leadership.
- 11. Demonstrate knowledge of the basic principles of business in a globalized environment.

#### **Graduate Profile**

Graduates of the Bachelor Program in Office Systems Management and Technology will effectively demonstrate the following competencies:

- 1. Ability to communicate orally and in writing.
- 2. Ability to work in a team.
- 3. Research skills for problem solving and decision-making.
- 4. Skills in the use of information and communication technologies (ICT).
- 5. Interpersonal skills.
- 6. Knowledge and skills in clerical administrative procedures.

- 7. Knowledge and cultivation of ethical and civic values.
- 8. Ability to think logically and critically.
- 9. Knowledge of the basic principles of business in a global context.

#### **Statement of Values**

The Bachelor's Program in Office Systems Administration and Technology is committed to promoting a set of values that reinforce human quality and academic and professional excellence.

#### These values are:

Respect, Responsibility, Commitment, Honesty, Equity, Confidentiality, Dedication, Perseverance, Integrity, Loyalty

## BACHELOR'S DEGREE IN OFFICE SYSTEMS AND TECHNOLOGY ADMINISTRATION

#### **STUDY PROGRAM**

#### First Year

First Se	Credits						
<b>INGL</b>	3101	Basic English I	3				
<b>INGL</b>	3113	Basic English Practice I	0				
<b>ESPA</b>	3101	Basic Spanish I	3				
CISO	3121	Introduction to Social Sciences I	3				
ASOT	3006	Document Production-Basic Level	3				
ASOT	3017	Interpersonal relations	3				
		Subtotal	15				
Second	Semester						
INGL	3102	Basic English II	3				
INGL	3114	Basic English Practice II	0				
<b>ESPA</b>	3102	Basic Spanish II	3				
CISO	3122	Introduction to Social Sciences II	3				
ASOT	3008*	Document Production-Intermediate Level	4				
ASOT	3015	Office Systems and Technology Concepts	3				
		Subtotal	16				
	Second Year						
First Se	mester						
INCO	3005	Business Communication in English I	3				
ESCO	3005	Oral and Written Commercial Communication I	3				

ASOT	3329	Shorthand in Spanish	4
SOFI	3010	Document Production-Advanced Level	4
<b>MATE</b>	3041	Introduction to Mathematics I	3
ECON	3008	Basic Concepts of Economics for Office Professionals	1
		Subtotal	18

<sup>\*</sup>This course must be passed with a minimum grade of C.

Second Se	Credits		
INCO	3006	Business Communication in English II	3
ESCO	3006	Oral and Written Commercial Communication II	3
ASOT	3305-06	Information Processing and Laboratory	2
ASOT	3217	Introduction to Transcription in Spanish	4
ASOT	3210	Document Management	3
HUMA*		-	3
		Subtotal	18

#### Third Year

First Sen	Credits		
ASOT	3327**	Transcript in Spanish	4
ASOT	4005	Integr. Progs. for the Proc. Elect. of Info.	4
INCO	3025	Conversational English I	1
ASOT	3505	Administrative Procedures for Office Professionals	4
ESTA	3106	Basic Concepts of Statistics for Office Professionals	1
CIBI	3001	Fundamentals of Biology I	3
		Subtotal	17
Second S	Semester		Credits
ASOT	3317	Introduction to English Transcription	4
ASOT	3016	Accounting Basics for the Office	
	2010	Professional	4
INCO	4055	<u> </u>	4 1
INCO MERC		Professional	
	4055	Professional Advanced Conversational English	
	4055	Professional Advanced Conversational English Marketing Basics for Office Professionals	1 1

<sup>\*</sup>The student can take any course in the humanities.

\*\*This course must be passed with a minimum grade of C.

Fourth Year				
First Sen	Credits			
ASOT	4038	Office Administration	3	
ASOT	4030	Publication Design	3	
PSIC	3005	General Psychology or		
PSIC	3116	Industrial Psychology or	3	
ASOT	3285	Group Dynamics		
FINA	3108	Finance Basics	1	
		for Office Professionals	1	
		Free Elective	3	
		Directed Elective in Office Systems	3	
		Subtotal	16	
Second Semester			Credits	
ASOT	4985	Internship	5	
HIST	3245	History of Puerto Rico (Compendium)	3	
		Free Elective	3	
		Free Elective	3	
		Subtotal	14	

#### **TOTAL OF CREDITS – 130**

#### MINOR CONCENTRATION IN DIGITAL BILLING OF HEALTH SERVICES

The minor concentration in Digital Billing of Health Services consists of twelve (12) credits. Through practical courses, students will learn about:

- the management of documents, medical information, medical terminology, laws and ethical aspects of a medical office.
- the basic standards of coding, diagnoses and procedures of diseases.
- electronic billing to medical plans and bill auditing and claims.
- basic skills for the development and operation of small businesses.

The following table shows the required courses, which will equip students with the specialized skills to function efficiently as a healthcare biller in any healthcare-related office. Additionally, through this minor concentration, students will be offered the basic tools so they can develop an entrepreneurial mindset.

COURSES REQUIRED IN THE MINOR CONCENTRATION IN DIGITAL BILLING OF HEALTH SERVICES			
CODIFICATION	CODIFICATION COURSE TITLE		
ADMI 4035	Small Business Administration	3	
ASOT 3416	Coding of Diagnoses and Procedures	3	
ASOT 4045	Administrative Procedures in the Medical Office	3	
ASOT 4046	Medical Insurance Billing	3	

#### QUALIFICATION REQUIREMENTS FOR THE MINOR CONCENTRATION

Below are the qualification requirements for the Minor Concentration, according to Certification 44-2019-2020 of the UPR Governing Board.

- 1. The academic advisor or director of the department will collaborate in the orientation and selection of the courses that correspond to the minor concentration and will ensure that you meet the requirements to enroll in it.
- 2. The student will declare his/her intention to obtain the minor concentration in Digital Billing of Health Services on or before having approved 50 percent of the credits of the program to which he/she is officially classified, using the electronic form on the UPRP page. (www.uprp.edu) provided for these purposes, so that it is completed on par with the requirements of the Baccalaureate and within 150 percent of the time prescribed for completion. That is, you will have six (6) years to complete the Baccalaureate degree in which you are officially classified and the Minor Concentration. If the student has passed more than 50 percent of the courses required in their Program, they must request authorization from the Dean of Academic Affairs.
- 3. You must be an active student in any baccalaureate program offered at the UPR and may not be on probation or suspension at the time of declaring your academic intention to obtain this Minor Concentration.
- 4. The student will complete the electronic form provided by the Registrar's Office for this process. After obtaining authorization from the director of your academic program, the director of the Office Systems Department and the Dean of Academic Affairs (if applicable), you will proceed with the corresponding payment in the Collections Office. The Office of the Registrar will establish in the academic calendar the deadline for the corresponding procedure.
- 5. The student may then enroll in courses during the academic advising or enrollment process (two to three courses will be offered per semester).
- 6. Completion of the minor concentration requires that the student have passed the twelve (12) credits with a minimum total average of 2.00 points in the minor concentration. You can use your free elective courses to complete the minor concentration.

#### BACHELOR DEGREE IN ATHLETIC THERAPY

#### **Brief description of the program**

This is a program aimed at the comprehensive and professional development of people interested in obtaining an academic preparation aimed at the prevention, management and treatment of athletic injuries, either during scientific training or during participation in sports. The main purpose of the Program is to prepare a health professional who contributes to a better comprehensive development (physical, psychological and social) of the individual's health.

#### **Objectives**

To meet the goal, the following objectives are developed:

- 1. Promote the maintenance of health as a dynamic concept in which the aim is to optimize the quality of life.
- 2. Promote a university education that combines scientific and technical foundations within the field of health applied to sports.
- 3. To stimulate the development of professionals who are oriented towards the field of preventive medicine as a means for the preservation of health.
- 4. To develop professionals who have the potential to occupy positions as Athletic Therapists in educational institutions, private companies, public companies and local or national sports organizations.
- 5. Promote the academic development of the student, exposing them to new trends in terms of knowledge, skills and techniques to modify, strengthen and/or maintain the behavior of their clientele in those areas related to sports health.
- 6. To stimulate scientific research in the area of sport, from the interdisciplinary perspective of the professions allied to health.
- 7. To train students to obtain basic skills that will allow them to work in programs dedicated to the prevention and treatment of injuries on the field of play.
- 8. To train students to obtain basic skills that allow them to work with the population in general and, specifically, with special populations, such as: people with physical disabilities or limitations in their sports training, the elderly, children and women, among others.
- 9. To prepare the student with the appropriate knowledge to be able to continue studies leading to a master's degree in fields related to health or sports.

#### **Graduate Profile**

A graduate of the Bachelor of Science in Athletic Therapeutics is a health professional who will be an integral part of an athletic and sports health program. The role of the Athletic Therapist consists of the implementation of programs aimed at the prevention, management, treatment and rehabilitation of athletic injuries as indicated by the sports doctor. Its duties include, but are not limited to, assessing physical fitness, advising and treating professional and amateur athletes to maintain physical efficiency when participating in athletic competitions; prescribe routine and corrective exercises to strengthen muscles; provide guidance on diet to maintain health and prevent overweight in athletes; massaging the athlete's body or body parts to reduce pain, stretched muscles, and bruises; offer first aid services to the injured athlete such as: artificial respiration, cleaning and healing of wounds, applying heat and cold to promote healing; call or refer the doctor when needed; bandaging athletes' ankles, fingers, and wrists in synthetic leather, protective gauze, and duct tape to support muscles and ligaments; treating minor chronic injuries and related problems to maintain the athlete's performance, among others.

#### **BACHELOR'S IN ATHLETIC THERAPY**

#### First Year

First Semester			Credits
<b>INGL</b>	3101	Basic English I	3
<b>INGL</b>	3113	Basic English I Laboratory	0
<b>ESPA</b>	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	Credits		
INGL	3102	Basic English II	3
<b>INGL</b>	3114	Basic English II Laboratory	0
<b>ESPA</b>	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	0
		Laboratory	
		Subtotal	16

#### **Second Year**

First Se	Credits		
MATE	3001	Introductory Mathematics I	3
TATL	3211	Introduction to Sports I - Sports in Puerto	3
		Rico	
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		3			
H (OL	5201	Subtotal	16			
Second	Credits					
BIOL	1013	Human Anatomy and Physiology II	4			
BIOL	1014	Human Anatomy and Physiology II	0			
		Laboratory				
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 So			Credits			
		Athletic Injuries I	4			
		Athletic Injuries I Laboratory	0			
		Functional Anatomy	3			
		Functional Anatomy Laboratory	0			
		Basic Pathophysiology	4			
TATL		Basic Concepts of the Physiology of Exercise	3			
TATL	4028	Basic Concepts of the Physiology of Exercise Laboratory	0			
<b>PSIC</b>	3005	General Psychology	3			
		Subtotal	17			
Second	Seme	ster	Credits			
TATL	4003	Athletic Injuries II	4			
TATL		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 So	Credits					
		Elementary Statistics	3			
		Psychology Exercises Sports	3			
		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**

# Service Departments



#### PART X SERVICE DEPARTMENTS

#### SPANISH DEPARTMENT

#### I. Description of the Department

#### 1. Brief Program Description

The Department of Spanish at the University of Puerto Rico at Ponce is a service department. It offers courses at the undergraduate level to meet the needs of those departments that offer terminal degrees or transfer programs. It offers the core courses for all students entering the University, specialized courses in business writing for students of Office Systems, Business Administration and Computer Science and courses in literature, writing and grammar necessary in the curricular sequence of students from the other departments offering terminal degrees or transfer programs.

Among the courses offered we mention Basic Spanish, Spanish Literature, Literary Genres, Puerto Rican Literature, Literature and Society in Puerto Rico, Spanish Grammar, Grammar and Writing, Oral and Written Commercial Communication in Spanish, and Business Communication.

It contributes to the intellectual formation of students and the development of general education competences and encourages the participation of students in cultural and extracurricular activities and, as a forum for student expression, sponsors the *Literary Circle Essence and Word*.

#### Vision

To be the academic department that, by its nature, most effectively fosters the appreciation and development of the arts of language and critical thinking in the process of teaching and learning the Spanish language.

#### Mission

The Department of Spanish at the University of Puerto Rico at Ponce provides the student, through multiple educational experiences in a Hispanic context, with the skills and competencies of the language arts and critical thinking that enables him to acquire a comprehensive formation that allows the students to be effective in various scenarios throughout their lives.

The Department encourages creation and research as necessary avenues to strengthen the teaching-learning process.

#### Goals

- 1. Train students to develop basic language arts skills that encourage critical thinking and effective communication.
- 2. Offer linguistic-literary educational experiences that contribute to the continuous cognitive and affective development of our student community.
- 3. Provide students with the necessary mechanisms for targeted research and independent study.
- 4. Cultivate aesthetic sensibility through appreciation and appreciation of literary art.
- 5. Stimulate literary creation.

- 6. Evaluate, review and update academic offerings to temper them to the academic and professional needs of the university community.
- 7. Promote research and creation as an integral part of teaching effort.
- 8. Provide career improvement opportunities for faculty and support staff. Effectively integrate technology into the teaching-learning process to develop oral and written communication skills.
- 9. Effectively integrate technology into the teaching-learning process to develop oral and written communication skills.

#### **Objectives**

- 1. Motivate the student to assume a reflective and critical attitude that promotes effective communication.
- 2. Provide the student with the opportunity to read, analyze and evaluate representative texts of the various literary genres that allow him to distinguish and appreciate their formal and semantic aspects.
- 3. Relate students to the various genres of literary creation so that they can distinguish the discourse or the expressive manifestation used.
- 4. Provide the student with experiences that enable him in the logical order of thought and in its clear and precise formulation.
- 5. Offer students the opportunity to present oral and written research papers on freely assigned or selected topics.
- 6. Develop an interest in reading Hispanic literary texts, as a means to achieve the cultivation of aesthetic, ethical and cultural sensibility.
- 7. Offer activities, such as: workshops, gatherings and literary contests, among others, and sponsor student organizations that promote interest in literary creation, so that they serve as a forum for individual and collective manifestation and expression.
- 8. Organize working groups composed of departmental teaching staff to evaluate, review, and update academic offerings in accordance with current academic trends or needs and professional demands.
- 9. Provide departmental teaching staff with the opportunity to create, document and investigate topics that expand their professorship
- 10. Promote among the departmental teaching and non-teaching staff to attend seminars, workshops, courses, courses and formal studies, among others, as a means of enrichment and professional improvement.

#### **ENGLISH DEPARTMENT**

The Department of English at the University of Puerto Rico at Ponce is a service program located in the Ruth Fortuño Academic Building. The English faculty consists of six permanent professors and various full and part time professors. Our professors are highly qualified. Four of our permanent teachers have terminal degrees, as well as certifications in the area of distance education. Most of the professors belong to professional organizations such as the Puerto Rican Association of University Professors (APPU) and TESOL. The administrative staff consists of an Administrative Secretary IV with a Master's degree and a Language Laboratory Technician II with doctoral credits in the area of Virtual Education. In terms of physical resources, we have five academic rooms prepared for distance learning and a language laboratory.

Academic rooms 105, 106, 107, 108 and C-1 have televisions for projecting from the computer, internet connection, desk for teachers, desks, two rooms have ActivePanels, two have speakers, cameras for distant learning, and all rooms have air conditioner units. The language lab is equipped with a monitor, Internet connection on the teacher's computer, and thirty cubicles with PC computers, an ActivePanel, and Internet connection. It should be noted, two of the cubicles with PC computer and internet connection are intended for use by students with disabilities. This facility is used during the day to offer English laboratory courses, workshops, conferences and seminars. During the evening and Saturday hours, the Division of Continuing Education and Professional Studies (DECEP) and the Department of Education of Puerto Rico (DEPR) use room 132 and academic rooms to offer conversational English courses, College Board reviews, certification courses as an English teacher, continuing education courses, professional improvement, certifications and bachelor's degrees product of federal and state proposals, workshops, conferences, seminars, trainings, association meetings, research courses and classes for DEPR public school students.

#### Vision

The Department of English of the University of Puerto Rico in Ponce is focused on the preparation of competent and professional graduates in the linguistic, academic and cultural area within the communicative context of English as a second language in order to develop professionals capable of responding to the challenges of society.

#### Mission

The Department of English at the University of Puerto Rico at Ponce has as its fundamental mission to prepare future professionals with the ability to use English as a means of communication that can contribute to a global society, continuous learning and service to the community so that they can be useful members of society.

#### Goals

- 1. Develop basic skills in the four language arts:
  - A. reading
  - B. writing
  - C. listen
  - D. speak

- 2. Develop critical thinking.
- 3. Raise awareness among students about the importance of mastering English.
- 4. Develop human appreciation and ethical values.
- 5. Prepare transfer students with the necessary courses for transfer to other local and foreign institutions.
- 6. Provide a competent curriculum.
- 7. Provide students with the mechanisms for self-learning.

#### **Objectives:**

- 1. Develop thinking skills so that students enrolled in Basic English courses and advanced courses can respond critically.
- 2. Instill the need to use library resources to complement the knowledge acquired in English courses.
- 3. Improve intonation and pronunciation in the English language. (See appendix 1.1 and 1.2)
- 4. Promote the reading and study of different literary genres, in order to improve the perception that students have of life.
- 5. Develop writing skills that will enable students to communicate effectively in their areas of study.
- 6. Provide verbal communication skills so that students can communicate effectively.

#### 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 student's 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 \$420 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).

#### **Scholarship Program**

Through the ROTC Vitalization Act of 1964 (PL88-647)" the ROTC Department offers scholarships for those most outstanding students interested in pursuing the Program. These scholarships range from one to four years. Scholarships include tuition, books, lab fees, and \$420 per month for ten months.

#### **Organizations**

Students have the opportunity to belong to the following organizations that help them extend their leadership and management knowledge:

"Ranger Challenge"

# Continuing Education and Professional Studies



### PART IX CONTINUING EDUCATION AND PROFESSIONAL STUDIES DIVISION (CEPSD)

#### **Description**

The Continuing Education and Professional Studies Division (**CEPSD**) is attached to the Dean of Academic Affairs of the University of Puerto Rico in Ponce and is located in the Ruth Fortuño Academic Building in Calzada. CEPSD is governed by Certification Number 190 of 2000-2001 of the Board of Trustees on *Institutional Policy and Strategic Management for Continuing Education and Professional Studies at the University of Puerto Rico*.

Through the CEPSD, short courses and professional improvement workshops are offered without credits; proposals to provide educational or training services with and without credits; courses aimed at high school students; and professional improvement courses with credits through the Night School Program.

#### Vision

The Continuing Education and Professional Studies Division of the University of Puerto Rico, with a presence in the eleven institutional units of the system, is a vehicle under which the University maintains close ties with its graduates; fulfills its mission of meeting the higher education needs of the communities of Puerto Rico and its surroundings; and with its commitment to the continuous search for new ways to respond quickly and creatively to present and future challenges and opportunities. This synergistic relationship is materialized through an innovative, relevant, excellent, broad, dynamic and flexible academic offerings and high-quality services for the professional and personal development of non-traditional students. In the era of globalization and a knowledge-based economy, the University of Puerto Rico reaffirms its leadership in continuing education and professional studies in the country, and as a competitive educational alternative for individuals beyond the geographical barriers of the Island.

#### Mission

The Continuing Education and Professional Studies Division of each of the institutional units of the University of Puerto Rico reaffirms its shared mission of providing innovative and excellent academic programs and activities, with and without credit, aimed at facilitating lifelong learning. The CEPSD enables, guarantees and perpetuates the service mission of the University of Puerto Rico, its insertion in the current of globalization of education, and its contribution to socioeconomic and cultural development, responding quickly and effectively to the immediate needs of the sectors of Puerto Rico and its environment, which it serves.

#### **Objectives**

Our objectives are those established in the document of Institutional Policy and Strategic Management for Continuing Education and Professional Studies (Certification 190-2000-2001 of the Board of Trustees):

1. To raise awareness among the students of the University of Puerto Rico, its graduates and

citizens about the importance of continuous learning as an essential mechanism for personal and professional development conducive to seeking their active participation in the social, cultural and economic development of the country, thus raising the individual and collective standard of living.

- Provide an innovative, broad, dynamic and flexible academic offer with and without credit that responds to the educational, training and training needs of non-traditional students from different sectors of the Puerto Rican community and its environment.
- Collaborate with academic departments and/or faculties in offering academic programs leading to certificates or degrees for non-traditional students.
- 4. Provide continuing education activities regulated by laws applicable to the authorized practice of certain professions, in accordance with the requirements established by examination boards and professional associations.
- 5. Establish alliances with public, private, local, national and international agencies and entities to design and implement academic projects that respond to their expectations and priorities.
- 6. Develop academic projects through consortia and agreements between departments, faculties and universities within and outside the University of Puerto Rico system, and public and private schools locally and internationally.
- 7. Diversify, enrich and expand the academic offer of continuing education and professional studies using various strategies, methodologies and technologies, including among these, distance education modalities, in accordance with the policies in force at the University of Puerto Rico.
- 8. Identify needs and demands for continuing education and professional studies in Puerto Rico and its surroundings, as well as other services related to the mission and capabilities of DECEP, and propose and implement alternatives to meet them.

#### OFFERINGS THROUGH THE DIVISION

#### 1.Short Course Program

It includes courses and seminars aimed at the professional, occupational and personal improvement. They allow people to update their knowledge, in order to maintain the necessary competencies in the areas of their specialty, as well as to use their free time in other areas of interest. They not for academic credit.

#### 2. Special Programs

They are identified in this way, because they are coordinated and externally funded programs. In these programs, the proposals submitted to different public agencies and private entities that request it.

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#### 3. Services to Industry and Public Agencies

Trainings are prepared according to the particular needs of entities, companies and government agencies. They can be offered at the physical facilities of the agency, the industry concerned or at the institution.

#### **4.Continuing Education Units (CEU)**

It is the credential that certifies participation during 10 contact hours in a non-credit educational experience organized under the auspices of CEPSD. The Division sponsors activities with continuing education units to those associations or entities that request it. For this they must present a curricular design of the activity, pre-tests and post-tests, in addition to the summaries and credentials of the resources that will offer the activity.

#### "ASCIENDE" PROGRAM

The University of Puerto Rico (UPR) has a commitment to the students of the Island, that is why it offers at the UPR in Ponce the Special Program for High School Students – *ASCIENDE* (UPR Ponce Academic Senate Certification 2008-2009-13)."

The ASCIENDE Program is attached to the Division of Continuing Education and Professional Studies (DECEP) and responds to the challenge of offering courses with university credit to students of high schools in the Southern Region of Puerto Rico. This initiative recognizes the existence of academically outstanding students in the country's high schools, private and public, who are qualified to take university courses while completing their high school. The purpose of the program is to motivate these students to advance their university studies while gaining valuable experience and the opportunity to become familiar with the student environment at the University of Puerto Rico at Ponce.

ASCIENDE allows the student to enroll in a maximum of (1) or two (2) courses, of a given selection, up to a maximum of seven (7) credits per semester, and up to a maximum of four (4) credits during the summer, if enrolled during the second semester of the academic year. This is subject to the student meeting the requirements of the Program, presenting the requested documents duly completed, and there is availability of space in the requested courses.

#### **OBJECTIVES**

- 1. Provide opportunities for academically outstanding students who have completed the eleventh grade (11), to begin their university studies before completing their high school.
- 2. Support these students in the process of adapting to university life.
- 3. Develop coordination and interaction links between the University and the public and private education systems.

#### **BENEFITS**

1. Advance academic credits before starting university studies.

- 2. Become familiar with university life and have the experience of taking courses with university professors.
- 3. Develop study habits and acquire the necessary skills for when they enter the University.
- 4. Option to enroll in more advanced courses in your first year of college.
- 5. Possibility to complete your university career faster.

#### ADMISSION REQUIREMENTS

- 1. Have an average of 3.50 or more on the 4.00 scale at the time of application.
- 2. Have completed the nineth grade (9) of high school.
- 3. Have taken the *College Board's* Academic Aptitude Test (PAA).
- 4. Complete the application for admission to the Program and make the corresponding payment.
- 5. Requires the favorable recommendation of the director of the department where the requested course is offered.

#### RECOMMENDED COURSES

#### Three (3) credits

```
ESPA 3101 - Basic Spanish I

ESPA3102 - Basic Spanish II

CISO 3121 - Introduction to Social Sciences I

CISO 3121 - Introduction to Social Sciences II

HUMA 3101 - Introduction to Western Culture I

HUMA 3102 - Introduction to Western Culture II

CIBI 3001 - Fundamentals of Biology I

CIBI 3002 - Fundamentals of Biology II

MATE 3171 - Pre-Calculus I

MATE 3172 - Pre-Calculus II

INGL 3101 - Basic English I - INGL 3113 - Basic English Laboratory I

INGL 3102 - Basic English II - INGL 3114 - Basic English Laboratory II
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#### Four (4) credits

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QUIM 3001 - General Chemistry I
QUIM 3003 - General Chemical Laboratory I
QUIM 3002 - General Chemistry II
QUIM 3004 - General Chemical Laboratory I
BIOL 3011 - General Biology I
BIOL 3013 - General Biology Laboratory I
BIOL 3012 - General Biology II
BIOL 3014 - General Biology Laboratory II
SICI 4008 - Electronic Data Principles
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#### Five (5) credits

MATE 3005 - Pre-Calculus

#### **TUITION FEES**

Tuition fees and fees will be charged, according to Certification 60 (2006-2007) of the Board of Trustees and Circular Letter FINMATRNUM07-08-01-02, issued by the Central Administration; University of Puerto Rico Finance Office.

The cost of the course includes:

- 1. credits
- 2. technology fee
- 3. maintenance fee
- 4. laboratories

#### **ACCREDITATION**

Only approved courses with C or more will be accredited. At the UPR in Ponce the courses and grades will be accredited when the student has enrolled in this Institution. The student must carry out the corresponding procedures so that the grade certification is sent to the Registry office to be recorded in the official file.

If enrolled in another institution of higher education, the student must request the grade certification of the courses, in which he must provide the name of the institution, the office and postal address where it will be sent. The accreditation and validation of the courses will depend on the rules and procedures in force in the selected institution.

#### **PROCEDURE**

Any student who meets all the requirements and is interested in participating in the program must comply with the following instructions:

#### **ADMISSION APPLICATION**

- 1. Collect the admission application to the ASCIENDE Program in the Continuing Education and Professional Studies Division of the UPR Ponce located on the first floor of the Ruth Fortuño Academic Building in Calzada.
- 2. In the application the student must complete sections 1 to 13. The parent or guardian shall complete and sign sections 14 through 16.
- 3. Take the application to the institution where you study to complete sections 17 through 19, School Authorization. To be valid it must be signed by the Principal and have the official seal of the school/college.
- 4. Pay the application fee for the ASCIENDE Program (\$20.00) at the UPR Collection Office in Ponce.
- 5. Submit the application Continuing Education and Professional Studies Division and include the following documents:
  - 1. Official Credit Transcript
  - 2. Copy of the College Board's PAA results
  - 3. Evidence of payment of the application
  - 4. Medical form with your documents\*

Your application will be evaluated, after the file contains all the documents of the admission application. Incomplete applications will not be processed.

- \* Medical form (will be given only to students admitted to the Program)
- 1. The form must be completed in Part A by the student (page 1 and 2) and signed by the parent or legal guardian.
- 2. Part B -Physical Examination must be completed and signed by a doctor.
- 3. If the participant is over the age of 18, they will complete the Certification of Consent for Diagnosis and/or Outpatient Treatment at the bottom of page 2.

4. If the participant is a minor, they must complete the Authorization to Receive Medical Care, which must be signed by the student, their parent or guardian and be signed and notarized by an attorney.

The form must be accompanied by the following documents:

- 1.PVAC-3 Immunization Certificate
- 2. Tuberculin or chest x-ray result
- 3.Blood test results
- 4. Authorization to receive medical help
- 5. Evidence Medical Plan (medical plan card)

#### **CLARIFYING NOTE**

The approval of courses in the ASCIENDE Program does not mean that the applicant will be admitted to the University of Puerto Rico at Ponce. If you are interested in continuing your studies at UPR-Ponce, you must submit the single application to the University of Puerto Rico to be evaluated in accordance with current requirements. The demand for the courses will determine the offer of these.

## NIGHT UNIVERSITY PROGRAM (NUP)

The Night University is attached to the Continuing Education and Professional Studies Division and provides the community at large with a Professional Improvement Program with credits at night, Saturday and online.

It offers graduates from public or private universities or higher education institutions accredited by the PR Board of Education the opportunity to take courses leading to the Teacher Certificate and courses that are requirements for graduate schools. Teacher certifications are awarded by the Puerto Rico Department of Education and courses are requested by graduate schools to students. Those interested in taking the courses leading to the Teacher Certificate can apply in the following areas:

Pre-School Education
English at Elementary Level
Physical Education at Elementary Level
Elementary Education from K to 3<sup>er</sup>
Elementary Education from 4<sup>to</sup> 6<sup>to</sup>
Special Education
Vocational Education Teacher

#### **Admission Procedure**

- 1. Request an interview with the coordinator or person in charge of the Night University.
- 2. File the application for readmission or transfer at the office of the Night University and make the corresponding payment.
- 1. Readmission any person who has studied at the University of Puerto Rico System.
- 2. Transfer any person who studied at Private Universities or Higher Education Institutions accredited by the Puerto Rico Education Council.
- 1. In addition, you will read and sign the CLARIFICATION SHEET. It will be delivered along with the application.
- 2. Payment of the application for admission to the program can be made at the Collection office in cash, money order, ATH or credit cards. Extended fundraising hours: Monday through Thursday from 4:30 p.m. 6:00 p.m.
- 3. Readmission cases must request an official credit transcript from the university where you earned your bachelor's degree. Transfer cases must process an official credit transcript and the Certificate of Clarification, which must be delivered to the Dean of Students of the University where he obtained the baccalaureate. These documents should be sent to the following address:

#### University of Puerto Rico at Ponce Night University Program Box 7186 Ponce, PR 00732

The program application forms, and clarification sheet are delivered to the Night University office.

- 1. If you are about to graduate, apply for a Degree Certification at the Registry office. After completing your degree, send us an official credit transcript.
- 2. If your baccalaureate is from a Private University, you must process the Clarification Certificate. You will complete Section: #1. Section: #2 will be completed by the University's Dean of Student. They will mail that sheet to our office.
- 3. Individuals accepted into the program must complete medical forms to process enrollment, which will be sent with the acceptance letter.

Those interested must meet all admission requirements established by the University of Puerto Rico.

# Other Programs



#### PART XII OTHER PROGRAMS

#### HONORS PROGRAM

The Honors Studies Program (HSP) at the University of Puerto Rico at Ponce is a program that enriches the university academic experience within an interdisciplinary framework. The HSP enables the development of leadership capacity, fosters social responsibility and stimulates both independent study and collaborative work. These goals are facilitated through honor sections in the core courses in which the students of the program share with each other, in addition, in the participation in workshops, intensive seminars, and in courses that will develop you holistically. They also participate in the Steering Committee through the Student Representative and in various co-curricular activities. Once they enter the HSP, they are an active part in the HSP Student Association. Likewise, they participate in semester and summer boarding schools in and outside of Puerto Rico that contribute to their student leadership.

Course participants in the honor sections will do studies with greater depth, independence, and responsibility than in regular courses. Consequently, the commitment to studies, critical analysis, analytical thinking, self-confidence, group work and leadership will be developed.

#### Vision

The Honors Studies Program aspires to be the best Enrichment Program that stimulates excellence in the student's academic achievement. In addition, we seek to optimally develop their intellectual and humanistic potential that allow them to function as holistic entities capable of being productive and committed to their lives, to the university, the community and Puerto Rican society.

#### Mission

The Honors Studies Program of the University of Puerto Rico in Ponce, the only public academic enrichment program in the southern area, visualizes the student who composes it as an active learner and protagonist in his development of the various areas of knowledge. This will be achieved through experiences that integrate the student into the research process, through an interdisciplinary curriculum, which stimulates the development of critical-reflective thinking and self-didactic learning. Likewise, we will promote leadership, respect for diversity and commitment through community activities that allow students to become entrepreneurial beings of social transformation.

#### Goals

- 1. Develop a comprehensive training of the apprentices of the Program through an interdisciplinary curriculum and immersion in honor sessions with challenging environments in the cognitive field.
- 2. Achieve optimal development in analytical, questioning and creativity skills framed in environments focused on learning with understanding, so that they strengthen their research capacity and vocation.
- 3. Encourage the strengthening of both self-directed work, as well as their collaboration capabilities.

- 4. Strengthen your vision as an entrepreneurial leader capable of committing and being responsible with yourself and the society in which you interact.
- 5. Strengthen individualized help considering particular academic needs and skills.

#### **Admission Requirements**

Admission to the Honors Studies Program is by invitation and voluntary choice of the student.

Those who are enrolled in a baccalaureate program will be eligible, whether it is completed at the UPR in Ponce or at a system campus.

- 1. First-year students must have an entry rate that is 1-2% higher than the IGS of students admitted to the UPR in Ponce that year and that is not less than 325. In addition, you must have at least 3.70/4.00 of high school average and two of the following results in the ENTRANCE exam to the UPR: 650 or more in achievement in mathematics and / or 580 or more in the part of Spanish and / or in English.
- 2. REGULAR UPR-Ponce students must have an overall GPA of 3.50 or higher. The term to apply to the PREH must be prior to completing 60 credits.
- 3. All students must fill out an admission application to the Honors Studies Program.
- 4. Deliver two letters of recommendation from: teachers of the high school of your origin; if you are a university student, two letters from professors.
- 5. Attend an interview with the Program Director, members of the Steering Committee and active HSP students.
- 6. Students belonging to Honors Programs of other institutions must comply with the regular admission process.
- 7. Upon acceptance to the HSP, the student accepts to belong to and meet the requirements of the Honor Studies Program Student Association (HSPSA).

#### **Student Benefits**

HSP students benefit from individualized counseling according to their special abilities, skills, and needs; of non-traditional classes; academic counseling and early enrollment; access to computers with Internet service for the preparation of assignments and reports related to your courses; participation in symposia and scientific congresses, among others.

Each year a special recognition will be given to the most outstanding students of the PREH during the Honors Assembly. Graduates who meet all the requirements of the honors program are given the program's distinctive red stole to be part of the academic attire at graduation.

#### Other benefits

- 1. Meeting room in the HSP's Office so that students can share academically and socially.
- 2. Virtual meeting room at Big Blue Button

- 3. Have same benefit of books loans, in terms of time, that the faculty has in the Adelina Coppin Alvarado Library.
- 4. Right to take up to 15 credits in addition to your PREH 4990 elective study requirements paid for by your scholarship. (Certification 2003-2004-27 of the Board of Trustees).
- 5. Access to personal and career counseling, both group and individualized.
- 6. Guidance on student exchanges, summer experiences, special scholarships and other academic activities.
- 7. Participation in the evaluation of all core courses taken with honors sections.
- 8. Participation in the selection of new students to the HSP.
- 9. Participation in educational trips and / or conventions with partial payment of costs.
- 10. Receive, upon completion of the requirements of the HSP, a certificate that accredits the fulfillment of the same and that as a graduate of the HSP be noted in your credit transcript.
- 11. During the first year of studies, small groups oriented towards the discussion of topics of their particular interest.
- 12. Mentor assigned for individualized support.
- 13. Up to 25 monthly free photocopies, with 1 month of "rollovers", supply of materials, such as: folders, paper, among others.
- 14. Provision of "Laptop" and projector for the presentations of the courses, for use within the institution.

#### **Certificate Requirements**

- 1. It is expected that, in addition to an outstanding academic record, the student will stand out for his interest in participating in HSP activities, their commitment to pass the courses with an outstanding grade, maintain an average equal to or greater than 3.40/4.00, leadership skills and self-confidence.
- 2. Take two HSP courses, Interdisciplinary Seminar (Certification NUM. 47 2004-2005, Curricular Sequence). In addition, they must take the HSP three credit course of Community Social Work, at least one semester of a third language and one of the research courses (Qualitative Research or Ethics in Research). In total, minimum, you must comply with five HSP courses.
- 3. Students in transfer programs must take a HSP course.
- 4. Conduct: a) an original research in their area of study and present it at the Student Congress of Research and Literary Creation of the UPR-Ponce, and b) a community service activity of 30 hours.
- 5. The first year they will take the core courses in special Honor Sections.

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#### INTERDISCIPLINARY COURSE PROGRAM

Code	Curso	Credits
	Self-Defense	2
	<b>Conflict Management Strategies</b>	3
	Research Ethics	3
	Photography: Theory and Practice	2
	Introduction to Chess	1
PREH	Introduction to Information Skills	1
4990	Qualitative research	3
	Community Social Work	3
	Basic Sign Language	3
	Intermediate Sign Language	3
	Advanced Sign Language	3
	<b>Macroscopic Anatomy Techniques</b>	3

#### COURSE DESCRIPTION

#### PREH 4990. SELF-DEFENSE I. Two credits.

The content of the course is focused on necessary concepts and processes through training aimed at the development of strategies and techniques of self-defense. Awareness is promoted about the prevention of attacks and aspects of urban security contextualized in situations of the real environment. The classroom is used as a training area, the area outside the university as a warm-up space and presentations and demonstrations for learning the content to be learned.

#### PREH 4990. CONFLICT MANAGEMENT STRATEGIES. Three credits.

The course consists of the study of the theory and practice of conflict management. It is aimed at students interested in knowing the strategies and developing the necessary skills to manage conflicts in educational, labor and community scenarios. It provides exercises and demonstrations for the application of the different aspects of conflict management.

#### PREH 4990. ETHICS IN RESEARCH. Three credits.

This course has as its main objective to provide some fundamental notions about ethical principles, framed in the context of decision-making when conducting or participating in scientific research in general, with emphasis on biomedical and social research. It includes the discussion of ethical considerations and aspects on the participation of human and animal subjects in scientific research. The course proposes to use the different teaching modalities such as team teaching and the use of technologies including distance education. The course is aimed at students enrolled in programs of the departments of Biology and Social Sciences.

#### PREH 4990. PHOTOGRAPHY: THEORY AND PRACTICE. Two credits.

The course is designed for the student to apply the theoretical and practical knowledge of photography. Allows the creation of the photographic image. It integrates the use of computer programs to enhance and enlarge the look of the portrait. It is aimed at students of all academic programs with the highest participation of Honors Studies Program students.

#### PREH 4990. INTRODUCTION TO CHESS. One credit.

The course is designed for the theoretical and practical study of the basic skills of the game of chess. It includes the origin and its development. It highlights the strategies and tactics of the game that integrates piece movements and game values. It is aimed at students of the Honors Studies Program and opens to students of other academic programs.

#### PREH 4900. INTRODUCTION TO INFORMATION SKILLS. One credit.

The course is designed for students to know and apply concepts that allow them to acquire the skills necessary to correctly access the sources of information available in libraries, information centers and electronic resource networks. It provides for them to develop research works with the correct use of style manuals and respect for copyright. It is aimed at students of the Honors Studies Program and opens to students of other academic programs.

#### PREH 4990. QUALITATIVE RESEARCH. Three credits.

The course is designed for students of the Honors Studies Program and is open to students of other academic programs. It includes the basic techniques of qualitative research to examine theoretical positions, conceptual tools, research problems and models. It integrates the methodological aspects that promotes an interdisciplinary, transdisciplinary and multidisciplinary approach to the production of knowledge.

#### PREH 4990. COMMUNITY SOCIAL WORK. Three credits.

The course is designed for the study of the concept of community and its components; and participation in community social work. It offers students the opportunity to study different types of communities, faith-based organizations, and community work. It allows the discussion in class of topics related to globalization. It requires the student to complete 30 hours of community work. It is aimed at students of the Honors Studies Program and opens to students of other academic programs.

#### PREH 4990. BASIC SIGN LANGUAGE. Three credits.

The course is designed for the study of basic sign language from the theoretical and practical dimension. It uses strategies focused on active learning, through intra and extracurricular activities. It exposes the apprentice to the study of the basic elements of the history of language, the laws developed in Puerto Rico and the knowledge of its culture. It emphasizes the aspect of effective and functional communication in hearing and deaf communities. It is aimed at students of the Honors Studies Program and opens to students of other academic programs.

#### PREH 4990. INTERMEDIATE SIGN LANGUAGE. Three credits.

The course is designed for the study of basic sign language and knowledge of the symbolism and meanings of sign language. It includes the analysis of language, vocabulary, interpretation techniques, knowledge and execution of the use of classifiers in the manifestation of language. It integrates the study of history, language development and the Code of Ethics of the Registry of

Interpreters of Puerto Rico. The methodology is focused on the constructivist approach to learning that emphasizes discussion in small groups and individually with a humanistic approach. It is aimed at students of all academic programs with the highest participation of honors Program students.

#### PREH 4990. ADVANCED SIGN LANGUAGE. Three credits.

The main goal of the course is to develop in greater depth the knowledge and skills to offer support and guidance to Deaf people. Through knowledge of the culture of this population and its particular language, emphasis will be placed on the process of effective communication between listeners and deaf people. Students will be exposed to various activities focused on the theory and practice of sign language in the classroom and in real external environments.

#### PREH 4990. MACROSCOPIC ANATOMY TECHNIQUES. Three credits PRE-REQUIREMENTS: BIOL. 3791-3793, BIOL. 3792-3794.

Intensive study of the structure of the human body plus the relationship between its parts. It includes the practice of macroscopic dissection techniques and the discussion of anatomical foundations that help to identify and describe the thick structure of the human body, such as bones, muscles, joints, blood vessels, lymphatic vessels and nerves, in addition, functional relationships. It is offered in consortium with the Department of Anatomy of the School of Medicine of Ponce.

#### INTERNATIONAL STUDIES AND STUDENT EXCHANGE PROGRAM

#### Mission

Enrich and contribute to the integral, academic and cultural development of students through the experiences of international studies and student exchange with university institutions, in such a way that it benefits themselves and society in general.

#### Vision

Promote international studies and student exchange among students, so as to enrich the teaching-learning process and cultural development.

#### **Objectives**

This program aims to:

- 1. Promote the academic and cultural development of students.
- 2. Provide the opportunity to students who do not have the economic resources to have an academic-cultural experience outside of Puerto Rico.
- 3. Establish alliances with other university educational centers in such a way that the academic-cultural exchange and the interest in research in the different academic disciplines of the baccalaureates that will participate are developed.

#### Profile of the participating student

- 1. Be interested in completing studies at a university abroad.
- 2. Be a second- or third-year qualified student with more than 65 credits accumulated.
- 3. Be classified as a student of one of the institution's baccalaureate programs.
- 4. Have an overall average of 2.50 (on a minimum 4.00 scale) and a concentration average of 2.75 (on a 4.00 scale).
- 5. Conduct an interview with the members of the International Studies and Student Exchange Program Steering Committee and the Program Coordinator.
- 6. Have academic progress at the time of submitting their application to the program (if the studentwill use the economic resources contained in the "Financial Aid Form").

#### **Participation Requirements**

- 1. Attend the orientations that during each academic semester will be carried out by the International Studies and Student Exchange Program.
- 2. Attend orientations and meetings scheduled by the Programmatic Office of Economic Assistance.
- 3. Have passed the four basic courses of the Faculty of General Studies (meaning Spanish, English, Social Sciences and Humanities).
- 4. Have passed the introductory course of your concentration.
- 5. Receive endorsement or approval from the Dean of Academic Affairs and Faculty.
- 6. Complete an application that will be filed one semester in advance of the year in which you want to carry out international studies.

#### Participating universities within the International Studies and Student Exchange Program of the UPR System

- 1. Autonomous University of Madrid
- 2. University of Salamanca
- 3. Complutense University
- 4. Universidad Carlos III
- 5. Polytechnic University

#### **Curricular Sequence International Studies**

The program offers a curricular sequence. The student who participates in the curricular sequence must comply with Certification No. 44, 2005-2006, of the Academic Senate of the UPR Ponce, which establishes the regulations that the student will request the Curricular Sequence before fulfilling the ninety (90) credits, in their respective academic department.

#### **Curricular Sequence Courses**

The student will take, as a prerequisite to the trip, the course **HUMA 3006**, *Theory of Study Trips*, belonging to the collection of courses offered by the UPR-Ponce with a value of three (3) credits and forty-five (45) contact hours. It covers the following units: (a) physical, political and economic geography; (b) history, art and culture; (c) social organization and data on folklore. This course, with a multidisciplinary approach, will help students to better appreciate the experience of the trip.

Además del curso requisito previo al viaje, el estudiante obtendrá tres (3) créditos al completar satisfactoriamente el período de estudios, en el país seleccionado, bajo el curso HUMA-3005, *Viajes de Estudio*, también incluido como parte de los ofrecimientos de la institución. El alumno, además de los tres (3) créditos, recibirá un certificado.

The nine (9) credits that complete the curricular sequence will be elective courses to be taken at the foreign institution according to the student's interest and academic program. See table below:

Curriculum Sequence Table					
Course Title and Code	No. credits	Remarks			
HUMA 3006 Study Travel Ttheory	3	required course			
HUMA 3005 Study Trips	3	required course			
Elective courses	9				
<b>Total Credits</b>	15				

#### CÓRDOVA PROGRAM OF CONGRESSIONAL INTERNSHIP

Law No. 59 of August 5, 1993 created the Cordova Congressional Internship Program through which university students from different institutions will have the opportunity to work and study for a semester in the United States Congress in Washington, D.C.

Any regular student of a duly accredited university in Puerto Rico with a general average of 3.00 or more and who has passed sixty (60) minimum credits at the time of starting the Internship, but who is not a candidate for graduation in that semester qualifies.

Selected students will be placed, during the semester for which they were elected to work, in the office of a senator or congressional representative, or in one of the attached offices, such as the Library of Congress, the Office of Science and Technology, and the offices of congressional committees or subcommittees. They will also participate in an academic program under the auspices of "The Washington Center," and will receive a stipend to cover their food expenses and basic personal expenses.

Participants will receive 12 academic credits from the University of Puerto Rico for their participation.

To apply, the student must:

- 1. Complete program application.
- 2. Include two letters of recommendation.
- 3. Write an essay.
- 4. Send an official transcript of credits from the University.
- 5. Submit required documents (original birth certificate and negative certificate of criminal record in original, two 2x2 photos).
- 6. Submit a summary.

- 7. Demonstrate that you have demonstrated leadership through your participation in civic or community service organizations.
- 8. Have proficiency in the English language (oral and written).
- 9. Describe in detail the types of activities you would like to participate in during the internship.
- 10. Submit a letter of endorsement from your academic advisor or other university official indicating the approximate number of academic credits that the institution would probably grant for participation in the Córdova Program.

#### **STUDY PROGRAM**

INTD	4000	Congressional Internship Córdova Program	Creditos 9
INTD	4010	Washington Center Academic Seminar	3

# Course Descriptions



#### PART XIII COURSE DESCRIPTIONS

#### **BUSINESS ADMINISTRATION**

ADEM 3105. INTERDISCIPLINARY SEMINAR. Three Credits. Three hours of conference. Study of the various current and projected trends, related to the field of business administration and its various areas of concentration. It provides a series of useful tools for the student's adaptation to university life, success in their studies and in their professional life. It includes the study of a variety of topics, not covered in a specific course, whose discussion and analysis are relevant for every student starting out in the business world. Practical and theoretical aspects of business administration are integrated where the student can analyze the same topic from the different points of view of the seminar participants. The seminar, coordinated by a professor, will feature the participation of businessmen and administrative staff from various companies in the region who will contribute and share their experiences with the students.

#### 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 3100. NEW BUSINESS DEVELOPMENT. Three credits. Three lecture hours per week.

Introduction to the theory and practice of establishing a small business. Topics include among other: how to start and develop a new business, acquiring franchise or buying an existing one.

#### ADMI 3150. BUSINESS PLAN DEVELOPMENT. Three credits. Three lecture hours per week. Prerequisites ADMI 3100

Development of a business plan for a small or medium sized enterprise. Components of a business plan, its importance, and its use as an administrative tool.

#### ADMI 3155. CREATIVITY AND ENTREPRENEURIAL INNOVATION. Three credits. Three lecture hours per week.

Describe the process of creativity and compare ways to use it as a tool for entrepreneurial innovation. Create and innovate products and service that could be developed into a business. Evaluate creative and innovative ideas of products and services in terms of the risks and opportunities involved.

### ADMI 4007. STRATEGIC MANAGEMENT. Three credits. Three lecture hours per week. Prerequisites: FINA 3006, MERC 3115, and REHU 4408.

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 4035. ADMINISTRATION SMALL ENTERPRISES. Three credits. Three lecture hours per week.

Application of principles and methods for the development and operation of small business using an entrepreneuship approach.

#### ADMI 4225. PRINCIPLES OF INTERNATIONAL BUSINESS. Three credits. Three lecture hours per week. Prerequisites: ADMI 3005 and MERC 3115

Introduction to the international dimension of business. Emphasis is on the participants, theories and particularities of the international business.

### BASE 2007. ANALYSIS OF FINANCIAL STATEMENTS. Three credits. Three lecture hours per week. Prerequisites: CONT 3006 and FINA 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 3008

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 Business, 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. Prerequisite: CONT 3008

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, CONT 4017 and CONT 4038 or CONT 4039.

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 4029. INTERNATIONAL ACCOUNTING. Three credits. Three hours of conference. Prerequisite: CONT 3008.

Study of the multinational dimensions of accounting with reference to foreign currency transactions, taxes, auditing and financial statements. Discussion of efforts to harmonize accounting standards. Emphasis on critical aspects of accounting, organizational structure, ethics, investments, and the relevant economic environment. It requires the student to participate in work groups or individual projects and present their findings orally and in writing. The course requires the use of computers.

#### 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 4037. ACCOUNTING INFORMATION SYSTEMS. Three credits. Three lecture hours per week. Prerequisite: CONT 3008.

A study of accounting information systems and their role in management planning and decision making. Data processing considerations in the design and operation of accounting information systems. Principles of internal control with emphasis in computerized accounting systems. Accounting application through software packages.

#### 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. Prerequisite: CONT 3006.

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 4057. INFORMATION SYSTEMS IN ACCOUNTING. Three credits. Three hours of conference. Prerequisite: CONT 3006.

Study of the functions and usefulness of a computerized information system. Discussion on development, analysis and control of information systems in accounting. In-person, online and hybrid and distance course.

### 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 Business. 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 4125. MANAGERIAL ECONOMICS. Three credits. Three lecture hours per week. Prerequisite: ECON 3022, ESTA 3002, MATE 3012

Covers some special theoretical aspects of microeconomic theory, such as the concept of risk and uncertainty, the nature and measurement of profit and other additional aspects of price determination. It also includes empirical studies and the methodology used in demand analysis, cost analysis, and capital cost and capital budgeting analysis.

### 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. **Prerequisite: CONT 3006**

A study of the process of raising, administering, and distributing the funds of and 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: FINA 3006, CONT 3006

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 liquity. 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 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 4020. INTERNATIONAL FINANCE. Three credits. Three lecture hours per week.

#### **Prerequisite: FINA 3007**

The study of international monetary relations with special emphasis on international monetary theory and policy among the topics to be discussed are included: international currency markets, international banking, balance of payments adjustment and the international monetary system.

#### FINA 4025. ADVANCED MANAGERIAL FINANCE. Three credits. Three lecture hours per week. Prerequisites: CONT 3006, FINA 3006

Advance study of an enterprises financial management. Topics discussed in the basic financial management course are reviewed, and expanded. Discussion of the following topics: the financial objective of a private enterprise, time value of money, the relationship between value, risk and return both for single securities as well as portfolios of securities, sources of financing for the enterprise, capital structure theory, dividend policy theory, and market efficiency theories.

#### FINA 4037. INVESTMENTS. Three credits. Three lecture hours per week. Prerequisite: FINA 3006

Analysis and interpretation of financial sources of information. Through study and analysis of investment alternatives emphasizing risk and other factors. Characteristics of private and institutional investors and analysis of their role through modern investigative method stock market conditions, characteristics and funtions.

### 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. Prerequisite: 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.

# FINA 4991. COOPERATIVE EDUCATION EXPERIENCE I. Three credits. Three lecture hours per week. Prerequisites: FINA 4025, two years of undergraduate studies with a minimum average of 2.50.

Experience of applying theoretical knowledge of business fields to a full-time paid work situation with academic supervision.

### GERE 4027. PRINCIPLES OF GENERAL SUPERVISION. Three credits. Three lecture hours per week. Prerequisite: ADMI 3005

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.

#### 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.

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 3215. ELECTRONIC MARKETING. Three credits. Three lecture hours per week. Prerequisite: MERC 3115

The marketing strategies that arise when using information technology in Innovative ways to provide value to customers are analyzed. Emphasis is placed on the application of electronic communication as the basis of a marketing plan with an electronic focus. The interaction of the communication and customer service through web pages, "one to one" communication, inputs of consumer behavior using online data, inventory optimization by integrating systems as customer relationship management (crm) and supply chain management (scm) are studied. In addition, the impact of online social platforms as a mechanism for companies to connect with actual customers and prospects is discussed.

### MERC 4005. INTERNATIONAL MARKETING. Three credits. Three lecture hours per week. Prerequisite: MERC 3115

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 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 4026. LOGISTICS OF PHYSICAL DISTRIBUTION. Three credits. Three lecture hours per week. Prerequisite: MERC 3115

Analysis of product distribution from an interdisciplinary point of view with a focus on marketing and operations. Design, development and operation of an integrated physical distribution system for effective consumer product delivery is emphasized.

#### MERC 4027. ADVERTISING. Three credits. Three lecture hours per week. Prerequisite: MERC 3115

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. Prerequisite: MERC 3115

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 4129. SERVICES MARKETING. Three credits. Three lecture hours per week. Prerequisite: MERC 3115

Study of marketing strategies used in the service industry. Analysis of how the distinctive characteristics of service industry affect the design and implementation of marketing strategies.

### MERC 4130. PROMOTION MANAGEMENT. Three credits. Three lecture hours per week. Prerequisite: MERC 3115

Analysis, planning, implementation and control of promotion in the goods and services segments. Emphasis is placed in communication theories directed to persuade, and achieve changes in attitudes and perceptions. Other major topics include the use of other traditional promotion tools like advertising, personal selling and newer tools and advances used in this discipline.

#### MERC 4215. RETAILING MANAGEMENT. Three credits. Three lecture hours per week. Prerequisites: MERC 3115

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 4217. CONSUMER BEHAVIOR. Three credits. Three lecture hours per week. Prerequisite: MERC 3115, MERC 4027

Analysis of the prevalent theories of consumer behavior. Study methods to examine this behavior that will help in marketing decision making.

#### 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 4007, MERC 4027, MERC 4036

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 4005. BUSINESS ETHIC. Three credits. Three lecture hours per week. Prerequisite: FINA 3007

As a science, business ethics is the study of the equitable distribution of wealth. This presupposes a specific concept of man thus man is presented through his two affinities: for things and for correct solutions. Economic, political and moral formulas are analyzed in order to help solve the problem of the just distribution of wealth. The cooperative system and capitalism with social responsibility, democratic government as the guardian of the equality, dignity and liberty of all citizens.

### 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-MANGEMENT 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 4419. LABOR LAW AND JURISPRUDENCE. Three credits. Three lecture hours per week. Prerequisite: REHU 4405

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. Prerequisite: REHU 4406

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 4435. INTERNATIONAL HUMAN RESOURCES MANAGEMENT. Three credits. Three lecture hours per week. Prerequisites: REHU 4405

The study of human resources management and how this applies to different countries and continents around the world. The development of a global and integrated vision of the modern human resources professional.

#### REHU 4436. EMPLOYEE RECRUITMENT AND SELECT. Three credits. Three lecture hours per week. Prerequisites: REHU 4405

Study of models and strategies for the recruitment and selection of internal and external employment candidates, emphasis on the planning and implementation of effective strategies to identify short and long term recruitment needs and to select candidates with the required competencies to work in competitive organizations.

#### REHU 4437. EMPLOYEE TRAINING AND DEVELOPMENT. Three credits. Three lecture hours per week. Prerequisites: REHU 4405

Study of learning theories and strategies that contribute to the effective design, implementation, and evaluation of training and development programs for employees in managerial and non-managerial positions. Emphasis on techniques that contribute to the attainment of individual and organizational goals that affect the management of talent employee performance, productivity and satisfaction in competitive organizations.

### REHU 4450. INTERNSHIP IN HUMAN RESOURCES MANAGEMENT. Three credits. Three lecture hours per week. Prerequisites: REHU 4405, REHU 4407, REHU 4419.

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.

#### SICI 4008. PRINCIPLES OF ELECTRONIC DATA PROCESSING IN BUSINESS. Four credits. Four hours a week of lecture.

This course is designed for students from other programs interested in obtaining the basis of electronic data processing. The study of basic concepts in scientific and business programming the student is required to prepare various simple programs dealing with his field.

#### COMPUTER SYSTEM INFORMATION

#### CCOM 4019. WEB PROGRAMMING. Three credits. Prerequisite: COTI 4210.

The course emphasizes the techniques used for website development. It presents the tools required for the design of websites with all its components using the PHP programming language and the MySQL database management system.

### COTI 3101. ALGORITHMS AND PROGRAM DEVELOPMENT I. Four credits. Four hours a week of lecture. Prerequisites: MATE 3001.

This is the first of two courses that offer an initial look at Computer Science, emphasizing modern programming techniques for problem solving. This one-year sequence covers, in a theoretical and practical way, the basic concepts of computers, the design of algorithms and the development of computer programs using object-oriented languages. In addition, the course studies the impact

of computers on contemporary society and analyzes the ethical aspects related to the development and implementation of programs.

### COTI 3102. ALGORITHMS AND PROGRAM DEVELOPMENT II. Four credits. Four hours a week of lecture. Prerequisites: COTI 3101.

It is the second of two courses that offer an initial look at computers, emphasizing modern programming techniques for problem solving. This one-year sequence covers, in a theoretical and practical way, the basic concepts of computers, the design of algorithms and the development of computer programs using object-oriented languages. In addition, the course studies the impact of computers on contemporary society and analyzes the ethical aspects related to the development and implementation of programs.

#### COTI 4210. WEB APPLICATION PROGRAMMING I. Three credits. Three hours per week of lecture. Prerequisites: COTI 3102.

This course provides a comprehensive introduction to the tools and skills needed to develop and maintain dynamic Web sites that provide interactivity to users. Programming tools are introduced for both developing applications that run on clients and Web servers.

#### COTI 4260 INFORMATION SECURITY. Three credits. Prerequisite: SICI 3019.

This course provides an overview of information security. The technical content of the course discusses essential concepts and methods for providing and evaluating security in information processing systems, including the security of operating systems, networks, applications and the web. Additionally, case studies will be used to present the ethics of information management and the impact that administrative decisions have on our Society.

#### FILO 3185: COMPUTER ETHICS. Three credits. Three hours of conference per week. Prerequisites: SICI 4020.

Ethical considerations related to computer use, such as privacy, intellectual property, collective and individual responsibility for damages caused and crimes committed.

### FINA 3106: FINANCIAL MANAGEMENT. Three credits. Three hours of conference per week. Prerequisites: CONT 3005.

Introduction to financial management with emphasis on the efficient management of funds to maximize the value of the company. The different models used for the evaluation of investment projects are discussed. The different short- and long-term financial planning techniques are explained. Aspects concerning the capital structure of the company and its importance in making financing and investment decisions are studied. In the discussion of these topics, the ethical principles that should characterize the profession will be considered.

### SICI 3015. ANALYSIS AND DESIGN OF INFORMATION SYSTEMS. Three credits. Three hours per week of lecture. Prerequisite: SICI 3211

This course is designed to train the student in the phases of analysis, design and implementation of computerized systems. It includes discussion, application and solution of real problems of the industry.

#### SICI 3016. PROJECT IMPLEMENTATION. Four credits. One hundred and eighty hours of supervised practice. Prerequisite: SICI 4037.

Study and development of applications in the data processing industry. This course covers the application of the knowledge acquired in the previous courses, which will be put into practice through a project based on real industry situations.

### SICI 3019. AUDIT AND CONTROL OF INFORMATION SYSTEMS. Three credits. Three hours per week of lecture. Prerequisite: SICI 4020.

The causes of risks related to computerized information systems are examined along with the necessary controls to avoid them. The techniques used by auditors in verifying the existence and quality of controls are studied in detail.

#### SICI 3020. C-PROGRAMMING FOR SYSTEMS DEVELOPMENT. Three credits. Three lecture hours per week. Prerequisite: COTI 3101

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. APPLIED PROGRAMMING. Three credits. Prerequisites: SICI 3015.

The course provides the theoretical knowledge and practical skills necessary to use the three most used types of "Application Software": word processors, electronic worksheets, database management systems and other types of programs.

#### SICI 3039. COMPARISON OF PROGRAMMING LANGUAGES. Three credits. Three hours per week of lecture. Prerequisite: SICI 4175.

This course introduces the principles of language programming, its design and implementation. The problems of machine translation from one language to another and the syntax of a variety of modern languages will be studied. Emphasis will be placed on unifying programming languages, both general languages and special purpose languages, as well as high and low level.

#### SICI 3211. FUNDAMENTALS OF INFORMATION SYSTEMS. Three credits. Three hours per week of lecture.

This course analyzes the fundamentals of computerized information systems in a company. The strategic importance of these systems, the support they offer and their role in operations, decision-making and competitive advantages, as well as their influence on the management of the company and the global economy are studied. Computer and communications technologies, information as a critical resource in the organization, the process of systems development, social and ethical aspects associated with the use of technology and professional development are also studied. Students will prepare practice exercises using productivity tools and operating systems.

### SICI 4010. APPLICATION OF STATISTICAL ANALYSIS BY COMPUTER. Three credits. Three hours per week of lecture. Prerequisites: ESTA 3001

Use of the computer for the statistical analysis of research in the field of Social Sciences. The course requires a computer lab and a statistical package.

#### SICI 4020. ANALYSIS AND DESIGN OF ADVANCED STRUCTURED SYSTEM. Three credits. Three hours per week of lecture. Prerequisite: SICI 3015.

Emphasizes design and programming in the DATABASE environment. Emphasis on structured analysis strategies and techniques. Reproduce the logistics to develop a complex information system.

#### SICI 4029. OPERATING SYSTEM FUNDAMENTALS. Three credits. Three hours per week of lecture. Prerequisites: SICI 4010, SICI 4036

A comprehensive study of principles common to computer operating systems. Fundamentals of multiprogramming; techniques for handling real and virtual memories; fusion of process and resource management; Solution to "deadlock" in the systems.

#### SICI 4030. DEVELOPMENT OF DATABASE PROGRAMS. Three credits. Three hours per week of lecture. Prerequisite: SICI 4020.

Introduction to the development of application programs in a database environment with emphasis on database design and data modeling.

#### SICI 4036. DATA STRUCTURE. Three credits. Three hours per week of lecture. Prerequisites: COTI 3102 and MECU 3032.

Concepts and terminology related to the most common data structures, such as: arrays, records, linked lists, stacks, queues and trees. Sorting and search algorithms are also studied.

#### SICI 4037. DATA COMMUNICATION. Three credits. Three hours per week of lecture. Prerequisite: SICI 3015.

The objective of this course is to provide basic knowledge in the systems and methods used in data communication. The course covers all aspects of data communication, including terminals, signal modulators, lines, languages in data communication, considerations in the central location of the parent equipment, "Communication Software" and "Networking".

### SICI 4065. PRACTICE IN PROGRAMMING. Four credits. Prerequisites: SICI 3016 and SICI 4175. 100 hrs. /Coordinator Approval.

Supervised programming practice in facilities where the student of the department will acquire valuable work experience. The supervisor must send the University an evaluation of the student's performance.

#### SICI 4175. INTRODUCTION TO PROGRAMMING IN JAVA. Three credits. Three hours per week of lecture. Prerequisite: SICI 4036.

Introduction to the concepts of object-oriented programming. It covers the details of the JAVA programming language and its syntax.

#### SICI 4185. INTRODUCTION TO MOBILE DEVICE PROGRAMMING. Three credits. Prerequisite: COTI 3102

Introduction to the basic fundamentals of creating applications for mobile devices. Analysis of the fundamental concepts and technical skills to create fully functional mobile applications, assuming prior experience in basic programming in an object-oriented language (such as Java, Kotlin, or C#).

#### SICI 4215. BUSINESS ANALYTICAL INTELLIGENCE. Three credits. Prerequisite: SICI 4030

This course deals with business intelligence technology with emphasis on: tools and techniques for data integration, ensuring data quality, analysis, report generation and visualization, for informed decision making.

### SICI 4278. MANAGERIAL ASPECTS OF INFORMATION SYSTEMS. Three credits. Three hours per week of lecture. Prerequisite: SICI 3015.

Contemporary approach to managerial and administrative activity related to computerized information systems. Topics such as: fundamentals of information systems management, information resource planning, implications of globalization for information systems, financial controls, auditing, security and control and other free topics related to the management area of information systems are discussed. Real or fictitious situations that require analysis, synthesis and recommendations will be studied through readings, research projects, case preparation, visits to facilities and class discussion.

SICI 4310. HUMAN COMPUTER INTERACTION. Three credits. Three hours of conference per week. Prerequisite: SICI 3015. Introduction to the field of Human-Computer Interaction. This field studies the integration of different disciplines into the design of information systems and how this design can somehow affect the way in which individuals interact with the systems. The course examines the factors that influence the acceptance of information systems. Methods and techniques used to evaluate the design of the systems are studied. Requires the use of a laboratory. This course may be offered in person or online.

SICI 4995. SPECIAL TOPICS IN COMPUTER SCIENCE. Three credits. Three hours per week of lecture. Prerequisite: Permission of the Instructor or Approval of the Coordinator. Discussion of topics in information sciences, incorporating research literature. The topics could change on a semester basis.

### SICI 4997. SPECIAL TOPICS AND NEW TECHNOLOGIES. Three credits. Three hours per week of lecture. Prerequisite: SICI 3015 and approval of the Coordinator.

Study of emerging developments in technology influencing information systems. This is an open topic course to allow you to deal with current issues. It can be taken more than once if the topic is different.

**SICI 4998. COOPERATIVE EDUCATIONAL EXPERIENCE. Two credits. Three hours of conference per week. Prerequisite: SICI 4037 and Approval of the Coordinator.** Work related to the concentration in Computerized Information Systems, duly supervised by the professor and the employer, in which the student will apply the knowledge acquired, as well as the skills and attitudes developed, in the courses of his concentration.

#### **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. Pre-requisite: BIOL 3011. Co-requisite: BIOL 3014

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. Prerequisite: BIOL 3013. 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 3018. DEVELOPMENTAL BIOLOGY. Four credits. Three hours of lecture per week. Prerequisite: BIOL 3011 and BIOL 3012.

Co-requisite: BIOL 3028.

Study of patterns and processes of development in different plants and animals and their control. Discussion of some special aspects of development processes.

#### 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 3028. DEVELOPMENTAL BIOLOGY LABORATORY. No credit. Three hours a week of laboratory. Prerequisite: BIOL 3011 and BIOL 3012.

Co-requisite: BIOL 3018.

Experiences illustrating patterns of development and experimental analysis of the processes involved.

#### BIOL 3108. UNDERGRADUATE RESEARCH. Two credits. Six hours per week of contact. Prerequisite: BIOL 3012.

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: 3012. Co-requisite: BIOL 3116

A study of the mutual relationships between organism and their natural environment. A study of the structure and function or 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 costal 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 3146. ECONOMIC BOTANY. Four credits. Three hours of lecture per week. Prerequisite: BIOL 3012.

Course on classification, characteristics, origin and human use of plants and their products. Travel to the countryside is required.

### 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 3207. INTRODUCTION TO BIOTECHNOLOGY. Three credits. Three hours of lecture per week. Prerequisite: BIOL 3012.

Through lectures, class discussions and demonstrations, the basic principles governing Biotechnology will be studied. It will start from an overview of Biotechnology, including its history and development, as well as its impact on society. Special emphasis on the study of the genetic basis of the function of living organisms and technologies that enable the development of new cell types with the ability to manufacture new products of commercial importance. The course also explores the different applications of Biotechnology.

### 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. Complement of the BIOL 3417 course.

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. Co-requisite: BIOL 3426.

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.

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.

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. Prerequisite: BIOL 3012, MATE 3172.

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 3745. INTRODUCTION TO MEDICAL MYCOLOGY. Three credits. Three hours of conference a week. Prerequisite: BIOL 3705.

A study of fungi emphasizing pathogens to humans. Isolation and identification of the most common ones are practiced.

### BIOL 3746. INTRODUCTION TO MEDICAL MYCOLOGY LABORATORY. No credit. Co-requisite: BIOL 3745.

The laboratory provides experiences to know the general characteristics of fungi and to be able to work on the identification of the majority of fungi that are pathogenic to humans.

#### BIOL 3791. HUMAN BIOLOGY PART III. Four credits. Three lecture hours per week. Prerequisites: BIOL 3012. Co-requisite: BIOL 3793.

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. Prerequisite BIOL 3791. Co-requisite: BIOL 3794.

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 3799. PHYSIOLOGY OF THE HUMAN BODY. Three credits. Three hours of lecture per week. Prerequisites: BIOL 3012 and BIOL 3792.

Conference and discussion on the functioning of the human body as a structural level constituted by cells, tissues, organs and systems. Emphasis will be given to the control mechanisms that it uses as a whole to carry out the tasks essential for the development of life. This course is designed for students of the Bachelor of Natural Sciences Program with a concentration in Biomedical.

#### 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 in specially placed on DNA and its major role in the genetic process.

#### BIOL 3909. BIOLOGY SEMINAR. One credit. One lecture hours per week. Prerequisite: BIOL 3012.

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. Co-requisite: BIOL 3920.

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. Co-requisites: BIOL 3919.

Techniques and methods of water microbiology related to industrial process it will emphasize in methods of detention of different indispensable components.

#### BIOL 4021. INTRODUCTION TO ORNITHOLOGY. Three credits. Three hours of conference a week. Prerequisite: BIOL 3425.

Study of the birds of Puerto Rico. The course is aimed at Marine Biology students who are interested in birds, in particular seabirds.

### BIOL 4022. INTRODUCTION TO ORNITHOLOGY LABORATORY. No credit. Corequisite: BIOL 4021.

Study of the birds of Puerto Rico. The course is aimed at Marine Biology students who are interested in birds, in particular seabirds.

#### BIOL 4033. BIOSOCIAL AND ENVIRONMENTAL ISSUES. Three credits. Three hours of lecture per week. Prerequisite: BIOL 3012.

Analysis of a current issue that constitutes a risk factor and/or biological, social and environmental protection for the human population. The topic will be considered in the light of available human services.

#### 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 3705, BIOL 3305.

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, immunoglobaline 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 4077. COASTAL RESOURCES Three credits. Three hours of conference a week. Prerequisite: BIOL 3115

Study of the different natural resources of the coast with emphasis on the ecological, economic and political aspects related to their exploitation.

### BIOL 4125. SEMINAR ON ECONOMIC, SOCIAL AND ENVIRONMENTAL LAWS. Two credits. Two hours of lecture per week. Prerequisite: BIOL 3115 or BIOL 3155.

Study of environmental, federal and state laws and their implications for social, economic and pollution control programs. It includes the use and management of marine biological resources from a legal point of view.

#### BIOL 4335. EVOLUTION. Three credits. Three lecture hours per week.

#### **Prerequisite: BIOL 3012**

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.

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 4426. GENERAL PARASITOLOGY. Three credits. Two hours per week of lecture. Co-requisite: BIOL 4427. BIOL 3012 prerequisite.

The biology of protozoa and helminths representative of vertebrate parasites including man and their host-parasite relationships.

### BIOL 4427. LABORATORY OF GENERAL PARASITOLOGY. Three credits. Three hours a week of laboratory.

Laboratory of the course BIOL 4426.

#### BIOL 4435. TAXONOMY OF VASCULAR PLANTS. Three credits. Three hours of lecture per week. Prerequisite: BIOL 3417. Co-requisite. BIOL 4436.

Introduction to the study of the taxonomy of vascular plants. It includes studies of evolution, morphology, distribution, nomenclature, classification and identification of vascular plants in pteridophytes, gymnosperms and angiosperms of Puerto Rico.

#### BIOL 4436. LABORATORY OF TAXONOMY OF VASCULAR PLANTS. No credit. Three hours of laboratory per week. Co-requisite: BIOL 4435.

Laboratory practices to complement the topics discussed in vascular plant taxonomy.

### BIOL 4438. INTRODUCTION TO VIROLOGY. Three credits. Three hours per week of lecture. Prerequisites: BIOL 3305 and BIOL 3705

Through lectures, class discussions and demonstrations the basic principles of the classification, structure, physiology and biochemical activity of viruses will be studied. The interaction between viruses with different entities and the diseases they can cause will be studied.

#### BIOL 4446. INTRODUCTION TO ENTOMOLOGY. Three credits. Three hours per week of lecture. Prerequisites: BIOL 3012 AND BIOL 3425.

This course is based on the study of insects. The preparation of a collection of insects is required. Practice in determining families and major orders.

#### BIOL 4447. BIOLOGY OF TERRESTRIAL VERTEBRATES OF PUERTO RICO.

Three credits. Three hours of lecture per week. Prerequisite: BIOL 3425. Co-requisite: BIOL 4448.

Study of the origin, taxonomy, distribution, habitat and conservation aspects of terrestrial vertebrates in Puerto Rico. The course also includes the ecological impact of migratory and exotic vertebrates on resident vertebrates and vegetation.

# BIOL 4448. LABORATORY OF TERRESTRIAL VERTEBRATE BIOLOGY OF PUERTO RICO. No credit. Three hours of laboratory per week. Prerequisite: BIOL 3425. Co-requisite. BIOL 4447.

Laboratory practices to complement the topics discussed in Terrestrial Vertebrate Biology of Puerto Rico.

#### BIOL 4545. BIOCHEMISTRY OF THE CELL. Three credits. Three hours of lecture per week. Prerequisites: BIOL 3012 and QUIM 3032.

Study of biological macromolecules, enzymologies, and cellular metabolic patterns and their regulation.

### BIOL 4558. ECOLOGY OF TROPICAL TERRESTRIAL COMMUNITIES Three credits. Three hours of lecture per week. Prerequisites: BIOL 3115.

In this course, the general concepts of ecology of terrestrial communities, both plants and animals, will be presented. Emphasis will be placed, among others, on the modern theory of definition, distribution, composition, structuring, sampling, classification and ordering of communities, as well as the concepts of diversity, succession and climax. Several perspectives of study of communities will be presented, such as morphological, physiological and population. Local community classification systems as practice material for the laboratory will also be discussed. In addition, some of the ecological principles applied to the management of terrestrial communities will be discussed.

# BIOL 4559. LABORATORY OF ECOLOGY OF TROPICAL TERRESTRIAL COMMUNITIES. No credit. Three hours of laboratory per week. Co-requisite: BIOL 4558. Laboratory practices to complement the topics discussed in the Tropical Communities Ecology course.

### BIOL 4607. MARINE ECOSYSTEMS OF PUERTO RICO. Three credits. Three lecture hours per week. Pre-requisites: BIOL 3115

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 4635. SEMINAR ON MARINE RESOURCES. Two credits. Two hours of conference per week. Prerequisite: BIOL 3115.

Discussion and study of tropical marine resources with emphasis on those of Puerto Rico. The topics of exploitation, administration and conservation of these marine resources will be developed.

#### 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. Co-requisite: BIOL 4755

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 4758. NEUROBIOLOGY. Three credits. Three hours of conference a week. Prerequisite: BIOL 3012.

Deepen the study of the nervous system as one of the control and integration systems of all the activities of the organism, particularly with regard to the higher mental activities of man.

#### BIOL 4895. EXPERIMENTAL BIOTECHNOLOGY. Three credits. Three lecture hours per week. Pre-requisites: BIOL 3010

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)

BIOL 4925. SEMINAR. A credit. One hour of lecture per week. Prerequisite: BIOL 3012. Seminar oriented towards the discussion of recent issues of biology and related sciences.

# BIOL 4993. SPECIAL TOPICS IN BIOLOGY I. One to three credits. One to three hours of lectures per week. Pre-requisite: Be a third or fourth year student and authorization from the department director.

Selected topics in biology, botany, microbiology and zoology. The topics vary semiannually according to the need of the department.

# BIOL 4994. SPECIAL TOPICS IN BIOLOGY II. One to three credits. One to three hours of lectures per week. Pre-requisite: Be a third or fourth year student and authorization from the department director.

Selected topics in biology, botany, microbiology and zoology. The topics vary semiannually according to the need of the department.

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.

#### SOCIAL SCIENCES

#### ANTR 3006. SOCIOCULTURAL ANTHROPOLOGY: Three (3) credits. Three hours per week of lecture. Prerequisite: CISO 3122.

Basic principles, approaches and methods of sociocultural anthropology. Critical analysis of the anthropological concept of culture. Discussion of topics of interest to contemporary anthropology, such as: cultural diversity, ethnic identity, the concept of race and comparative analysis of the state.

#### 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 Stated 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.

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.

### 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.

#### GEOG 3155. ELEMENTS OF GEOGRAPHY. Three (3) credits. Three hours per week of lecture. Prerequisite: CISO 3122.

Identification, analysis and systematization of the physical and cultural elements of terrestrial space as they exist in interrelation and interconnection. The main purpose of this course is to raise awareness about the harmonious functioning of man and his environment.

### 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. Prerequisite: PSIC 3003, PSIC 3005.

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.

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### 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. Prerequisite: PSIC 3015

Pathological reaction in the feebleminded, 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 3003, CISO 3155

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 or PSIC 3005.

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. Prerequisite: 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 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 or PSIC 3005.

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 or PSIC 3005

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 4006. EXPERIMENTAL PSYCHOLOGY. Four credits. Three lecture hours per week and two of laboratory. Pre-requisites: PSIC 3003 or PSIC 3005, 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. Prerequisite: 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 o 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 or PSIC 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.

#### REHA 3005. INTRODUCTION TO REHABILITATION. Three (3) credits. Three (3) hours of lecture and discussion per week.

The course will focus on the theory and practice of the field of rehabilitation. It is aimed at students of professions related to the rehabilitation of people with various types of disabilities, so that they can know what the rehabilitation process consists of and make informed decisions about it in their future areas of work, during the planning and provision of services to this population. The basic concepts, the historical, philosophical background and the related ethical-legal aspects will be discussed. Systems and agencies that provide services to people with disabilities will be studied. In addition, the impact of impairments on a person's personal, social, and vocational adjustment is examined.

#### REHA 3006. PSYCHOSOCIAL ASPECTS OF PEOPLE WITH DISABILITIES. Three (3) hours of lecture and discussion per week. Prerequisites: PSIC 3003 or PSIC 3005, and SOCI

This course is aimed at students of professions related to the rehabilitation of people with physical, sensory, cognitive or emotional disabilities. Topics, theories of psychology and interdisciplinary models around health and disease will be presented. The purpose of the course is to provide students with general knowledge about those concepts and models that are relevant to the analysis and understanding of the psychosocial dimensions of dysfunction. This knowledge will enable them to assist in the presentation of rehabilitation services. Implications for treatment and rehabilitation will be examined. Special emphasis will be given to the problems.

REHA 3007. MEDICAL ASPECTS OF PHYSICAL DYSFUNCTION. Three (3) credits. Three (3) hours of lecture and discussion per week. Prerequisites: CIBI 3001 and CIBI 3002 Discussion of physiological conditions and medical aspects resulting from injuries, diseases, or conditions mostly treated in the area of physical dysfunction and rehabilitation. The course is

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aimed at students of professions related to the rehabilitation of people with disabilities. The purpose is that they can make informed decisions in their future areas of work, in situations in which the application of physiological principles and general medical aspects is required in the area of rehabilitation of people with physical, sensory, cognitive and emotional disabilities. The course content includes general notions of medicine, surgery, neurology and orthopedics.

#### REHA 3115. WORK LOCATION. Three (3) credits. Three (3) hours of lecture and discussion per week. Prerequisite: REHA 3005

This course emphasizes the study of appropriate theories and techniques of job placement. It is aimed at students in professions related to rehabilitation services to assist people with disabilities in obtaining and maintaining competitive employment. Topics such as job development, job restructuring and modification, labor market analysis, assessment of environmental and attitudinal barriers, various employment modalities and the use of specialized job placement techniques are addressed and discussed. Course concepts will be presented through lectures, discussions, simulations, and case studies.

#### REHA 4005. FUNDAMENTALS OF COUNSELING AND REHABILITATION. Three (3) hours of lecture and discussion per week. Prerequisites: PSIC 4160 and REHA 3005

The course provides a general idea of the role and functions of the rehabilitation counselor, related to the application of the principles and techniques of counseling and case management in rehabilitation processes. Students will relate to planning processes, setting rehabilitation goals and objectives, both long-term and short-term, problem analysis, and providing rehabilitation services. The course is aimed at students of professions related to the rehabilitation of people with various types of disabilities, so that they can assist in case management, decision-making and the provision of services to this population.

# REHA 4006. PRACTICE IN REHABILITATION. Three (3) credits. One (1) hour of lecture and discussion per week and eight (8) hours of practice. Prerequisites: PSIC 4160, REHA 3005

The course is aimed at students of the Baccalaureate Program with an area of Emphasis in Rehabilitation Services, with the purpose that they can apply the concepts and skills acquired in their courses to the process of providing services to the population of people with disabilities in an institution that offers these services. Students will attend their practice center eight (8) hours per week. They will complete 120 hours during the semester. In addition, lectures, case discussions, demonstrations and simulations will be presented. This internship course is designed so that students can gain knowledge in the field of work about the purpose, functions, services, and clientele of an agency that provides.

#### SOCI 3005. CRIMINOLOGY. Three credits. Three lecture hours per week. Pre-requisite: SOCI 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

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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 and SOCI 3245

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. Prerequisite: CISO 3122

Philosophy and basic concepts operating in the groups of our democratic system of life, group dynamism, structural cohesion, emotional factors, leadership, communication and their effects. The class will be a laboratory for the study of these topics.

#### 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.

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.

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-requisite: EDES 4006

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. Pre-requisites: EDES 4006

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. Pre-requisites: EDES 4006

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.

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## EDES 4055. TEACHING STRATEGIES FOR THE INCLUSION OF STUDENTS WITH SPECIAL EDUCATIONAL NEEDS IN THE REGULAR CLASSROOM. Three credits. Three lecture hours per week. Prerequisite: EDES 4006.

This course is based on the practical aspect of the teaching-learning process of students with special needs in the context of the regular classroom. In it, future teachers will carry out the planning process taking into consideration individual differences in the classroom, prepare teaching materials adapted to a wide range of human capacities and develop educational intervention strategies aimed at adequately managing the context of the diversity. The course is based on the postulates of universal design for learning and differentiated education.

#### 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.

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. PHYLOSOPHICAL 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 4106. HUMAN SEXUALITY. Three credits. Three hours of conference per week.

This course is designed so that the student visualizes sexuality as an aspect of vital importance in the integral development of the individual. Through it, the student is exposed to the physiological, psychological, sociocultural and spiritual aspects of human sexuality, as well as the educational implications of the development of sexuality from childhood to old age. Typical topics of erotic behavior, sexually transmitted diseases and sexual depression are discussed. The learning experiences provide for the student to clarify doubts and rituals regarding sexuality and develop positive attitudes that lead to healthy sexuality. Emphasis will be offered on risky and alternative sexual behaviors.

#### 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 3001. THE TEACHING OF LANGUAGE ARTS IN THE ELEMENTARY SCHOOL I. Three credits. Three lecture hours per week.

Language themes, content and methodology of all language arts: listening, speaking, reading, writing, pictorial appreciation and creation.

#### EDPE 3002. TEACHING OF LANGUAGE ARTS IN ELEMENTARY SCHOOL II. Three credits. Three lecture hours per week. Pre-requisites: ESPA 3102

Language themes, content and methodology of all language arts: listening, speaking, reading, writing, pictorial appreciation and creation.

#### 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.

Diagnosis of needs, formulation of objectives, selection of content and planning of units in the area of social studies; curricular design, teaching methods and practices, planning and evaluation, as well as use of community resources. Clinical experiences are required.

#### EDPE 3008. ASSESSMENT IN ELEMENTAL SCHOOL. Three credits. Three lecture hours per week.

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

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. One hour per week of lecture. Two hours of practice.

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 3115. MATHEMATICS TEACHING IN ELEMENTARY SCHOOL. Three credits. Three hours per week of lecture.

You must have a teacher to teach mathematics in elementary school. It includes concepts with integers, geometry, problem solving, operations with rational numbers, ratio and proportion, and percentage. Emphasis will also be given to the areas of writing objectives, planning learning activities and preparing materials in tune with the course content. Laboratory techniques, materials, and experiences will be used in classrooms.

### 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. Pre-requisite: EDFU 3001

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.

Students will complete a minimum of nine weeks full-time or 18 weeks part-time in a public school. They will assume responsibility for teaching duties in a real school situation under the guidance of the school and the cooperating school. Half the time will be dedicated to a primary grade and the other half to an intermediate grade. Two hours per week will be dedicated to interdisciplinary seminars with school supervisors and teachers in charge of clinical experiences.

## EDPE 4033. TEACHING AND LEARNING INTEGRATING THE APPROACH OF SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS (STEM). Three credits. Three hours of conference per week.

Expose students at the high school level in Elementary Education to a series of experiences based on active learning from an approach that integrates science, technology, engineering and mathematics (STEM). A series of strategies, methods and techniques will be implemented that promote knowledge in paradigm changes in current educational approaches, the process of integration of disciplines, the competencies of the graduate profile and those of the 21st century. In addition, use various educational modes consistent with the STEM approach that requires the production and transfer of knowledge.

## EDPE 4034. TEACHING AND INTEGRATION OF THE UNIVERSAL DESIGN FOR LEARNING (UDA) INTO THE EDUCATIONAL PROCESS. Three credits. Three hours of conference per week. Prerequisite EDFU 3001

This course provides the necessary educational experiences so that teacher candidates can know, understand, and transfer to their educational practices a diversity of instructional modes to satisfy individual differences, reducing or eliminating the barriers that any student may experience to access, participate, and learn within the framework of learning experiences applicable to the entire student universe. The neurological foundations are analyzed, as well as the networks and principles that affect the learning process. Students become familiar with the application of Universal Design for Learning (UDL) to the educational process (planning, implementation, evaluation). In addition, they will design educational activities and resources to address the diversity of students at the elementary level.

#### EDPE 4040. PROJECT-BASED LEARNING. Three credits. Three hours of conference per week.

The course aims for the student to become aware of the conceptual framework of Project Based Learning as an effective method for teaching and learning. The identification of needs or challenges is promoted as a basis for defining the project, analyzing its fundamental phases (design, development, implementation and evaluation), reporting and presenting the results. The teacher candidate reflects on the importance of this active learning method as a teaching vehicle in the Elementary School (k-6). The course content is organized around basic units that present a logical sequence of activities that demonstrate the trajectory of the course.

#### 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. Pre-requisites: EDPE 3002 and EDPE 3008.

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.

### 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. GENERAL PHYSICAL EDUCATION I. One credit. Seventy-five percent will be dedicated to skills instruction and twenty-five percent to lecture.

Appropriate exercise program will be covered to improve the physical fitness of the students. A physical efficiency test will be administered at the beginning and end of each semester to each student. The theoretical part of the course will cover the effects and benefits of a well-planned exercise program. (75% of the time will be dedicated to skills teaching and 25% to lecture-discussion periods).

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### 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.

This course covers the practical learning and development of the skills necessary to be able to execute the various events that make up the sport of gymnastics.

### 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 3427. WEIGHT TRAINING. Two credits. One hour per week of lecture and two hours of supervised practice.

Introduction to the principles and practices related to weight training for fitness purposes.

#### 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. Prerequisite: 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 3595. BASKETBALL AND FOOTBALL. Two credits. Three hours of contact per week.

Emphasis is given to the theory and practice of sports, fundamentals of the game, offense, defense and rules of the game.

#### 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 3008. INTRODUCTION TO EDUCATIONAL TECHONOLOGY. 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 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.

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

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.

### 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 and 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.

#### EDPE 3001. THE TEACHING OF LANGUAGE ARTS IN THE ELEMENTARY SCHOOL I. Three credits. Three lecture hours per week.

Language themes, content and methodology of all language arts: listening, speaking, reading, writing, pictorial appreciation and creation.

## EDPE 3002. THE TEACHING OF LANGUAGE ARTS IN THE ELEMENTARY SCHOOL METHODOLOGY. Three credits. Three lecture hours per week. Prerequisite: ESPA 3102

Language themes, content and methodology of all language arts: listening, speaking, reading, writing, pictorial appreciation and creation.

### 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 3010. TEACHING SOCIAL STUDIES IN ELEMENTARY SCHOOL. Three credits. Three lecture hours per week.

Teaching social studies in elementary school is a mandatory course for all aspiring elementary school teachers. The course aims to offer the future teacher relevant training related to this curricular area and teaching. Special attention will be offered to the concepts and generalizations that inform the content of social studies. Which have been derived from the broad field of knowledge of social sciences, history, geography, sociology, anthropology, social psychology, science, politics and economics. The elementary school social studies curriculum will be analyzed.

#### EDPE 3011. TEACHING OF MATHEMATICS AT THE ELEMENTARY LEVEL. Three credits.

Methodology and basic content of mathematics courses in the elementary school.

#### 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 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 3115. MATHEMATICS TEACHING IN ELEMENTARY SCHOOL. Three credits. Three hours per week of lecture.

You must have a teacher to teach mathematics in elementary school. It includes concepts with integers, geometry, problem solving, operations with rational numbers, ratio and proportion, and percentage. Emphasis will also be given to the areas of writing objectives, planning learning activities and preparing materials in tune with the course content. Laboratory techniques, materials, and experiences will be used in classrooms.

#### 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 3317. CHILDREN LITERATURE. Three credits. Three hours of lecture per week. **Pre-requisites: 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 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 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 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.

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#### 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 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 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 3465. PERSONAL AND COMMUNITY HEALTH. Three credits. Three hours of lecture per week.

Basic knowledge of current individual and community health problems.

#### 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 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 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.

#### 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.

### 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.

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 4019. PHYLOSOPHICAL 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 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.

### TEED 4018. INTRODUCTION TO COMPUTERS IN EDUCATION. Three credits. Three hours of lecture per week.

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.

### HIST 3111. HISTORY OF THE UNITED STATES OF AMERICA. Three credits. Three lecture hours per week.

A census of the history of the United Stated 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.

### EDES 3006. DIAGNOSIS AND CORRECTION OF DEFICIENCIES IN READING AND WRITING. Three credits. Three lecture hours per week.

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 3009. CARE OF THE CHILD IN THE CLASSROOM. Three credits. Three lecture hours per week.

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 3205. TECHNOLOGICAL ASSISTANCE APPLIED TO PEOPLE WITH DISABILITIES. Three credits. Three lecture hours per week.

The Technological Assistance applied to people with disabilities course is designed to familiarize the teacher with the field of technological assistance for people with disabilities. It is aimed at developing general knowledge in relation to Technological Assistance. Teachers will acquire the basic knowledge necessary to view Technological Assistance as the process that facilitates people with disabilities to participate successfully and independently in various social contexts (school, home, work and community).

#### 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.

## EDES 4055. TEACHING STRATEGIES FOR THE INCLUSION OF STUDENTS WITH SPECIAL EDUCATIONAL NEEDS IN THE REGULAR CLASSROOM. Three credits. Three lecture hours per week. Prerequisite: EDES 4006.

This course is based on the practical aspect of the teaching-learning process of students with special needs in the context of the regular classroom. In it, future teachers will carry out the planning process taking into consideration individual differences in the classroom, prepare teaching materials adapted to a wide range of human capacities and develop educational

intervention strategies aimed at adequately managing the context of the diversity. The course is based on the postulates of universal design for learning and differentiated education.

#### PREH 4990. BASIC SIGN LANGUAGE. Three credits.

The course is designed for the study of basic sign language from the theoretical and practical dimension. It uses strategies focused on active learning, through intra and extracurricular activities. It exposes the apprentice to the study of the basic elements of the history of language, the laws developed in Puerto Rico and the knowledge of its culture. It emphasizes the aspect of effective and functional communication in hearing and deaf communities. It is aimed at students of the Honors Studies Program and opens to students of other academic programs.

#### PREH 4990. INTERMEDIATE SIGN LANGUAGE. Three credits.

The course is designed for the study of basic sign language and knowledge of the symbolism and meanings of sign language. It includes the analysis of language, vocabulary, interpretation techniques, knowledge and execution of the use of classifiers in the manifestation of language. It integrates the study of history, language development and the Code of Ethics of the Registry of Interpreters of Puerto Rico. The methodology is focused on the constructivist approach to learning that emphasizes discussion in small groups and individually with a humanistic approach. It is aimed at students of all academic programs with the highest participation of honors Program students.

#### EDPE 3018 The Teaching of English as a Second Language. Three classroom hours, 45 hours per semester.

This course is devoted to the analysis and discussion of the nature and functions of a language; the phonology, morphology, syntax and lexicon of spoken English in the United States and the ways in which it is essentially different from spoken Spanish in Puerto Rico are emphasized. An understanding of the principles on which the teaching of a foreign language is based, analysis of the problems involved in teaching of English to Puerto Rican, specific methods, examination of the textbooks used in the public schools of Puerto Rico, ways the textbooks can be adapted to guide the teaching of English as a second language, and observation of English classes in the Elementary school are included.

#### 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 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 4235. STRUCTURE/SYNTAXIS 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 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 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.

### 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.

#### **SPANISH**

### COEM 3001. BUSINESS COMMUNICATION I. Three credits. Three hours per week of lecture. Prerequisite: ESPA 3102.

Study and development of oral and written communication in a business context. The importance of effective communication for the functioning of companies and professional performance is highlighted. Particular attention is paid to the adoption of a critical and creative attitude and to the integration of grammatical, stylistic and logical rules, ethical principles, as well as psychological, technical and cultural knowledge, as appropriate.

#### 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 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 intoduced 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. Prerequisite: 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 throught 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.

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. Prerequisite: 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. Prerequisite: ESPA 3102

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 3102

A study of principal authors of Puerto Rican Literature from its beginnings to the present.

#### ESPA 4235. LITERATURE AND SOCIETY OF PUERTO RICO. Three credits. Three weekly lecture credits. Prerequisite: ESPA 3102

The course proposes to examine the complexity of Puerto Rican society and the political, economic, social and cultural transformations of the island from the last three decades of the twentieth century to the present. Texts of various genres and other social, cultural and artistic manifestations such as: films, documentaries, laws, spaces, graffiti will be analyzed. This course is aimed at second-year students.

#### **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 16<sup>th</sup> 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 3185. ETHICS IN THE COMPUTER. Three credits. Three hours per week of lecture.

Ethical considerations related to computer use, such as privacy, intellectual property, collective and individual liability for damages caused and crimes committed.

#### FILO 4028. BIOETHICS. Three credits. Three lecture hours per week.

Problems related to the advancement in Biomedic science and technology. Case studies.

#### 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 FRANCH 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 Stated 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. Pre-requisite: HUMA 3111

Historical development of the United Stated of America from the reconstructions 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.

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; monarchial 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 pasta century, as well as to the past 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.

**HIST 4211. HISTORY OF AFRICA I. Three credits. Three hours of conference per week.** General history of Africa from its origins to the end of the slave trade in the 1870s.

## HIST 4212. HISTORY OF AFRICA II. Three credits. Three hours of conference per week. ("Historical overview of the Negroid cultures of Africa (Sub-Sahara), dedicating special attention to West Africa, a region with close ties to Latin America")

This is a three (3) credit course that studies the development of African societies during the last centuries of the precolonial period, the colonial era and the decades after independence. The course focuses on sub-Saharan Africa although it includes occasional references to North Africa.

#### HIST 4220. HISTORY OF GERMANY SINCE 1871. Three credits. Three hours per week of lecture.

History of Germany highlighting the period from its unification in 1871 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. Is 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 FUNDATION SOFTWESTERN 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, Romance and Medieval Christians and their relationship with the contemporary world.

### HUMA 3111. COMPENDIUM STUDY 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. Prerequisite: 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.

#### ITAL 3001. INTENSIVE ITALIAN I. Three credits. Three hours per week of lecture.

Abbreviated course equivalent to the first and second year of Italian. A period of 15 minutes of oral practice. Assignment of daily collation, grammar, intense reading, composition. Careful study of Italian idioms, as well as other forms of expression of this language.

### ITAL 3002. INTENSIVE ITALIAN II. Three credits. Three hours per week of lecture. Prerequisite: ITAL 3001.

Continuation of Intensive Italian I.

#### LITE 3011. MODERN AND CONTEMPORARY LITERATURE. Three credits. Three hours of lecture per week.

Panorama of European literature from the 16th century to the present day; study of genres (lyric, epic, novel, drama, etc.) and variants of literary tradition (Humanism, Baroque, Neoclassicism, Romanticism, Realism, etc.) Attention to the national manifestations of this European literature . In-person, online and hybrid course.

#### LITE 3012. MODERN AND CONTEMPORARY LITERATURE. Three credits. Three hours of lecture per week.

Panoramic study of European literature from Romanticism to the present day, through some of its most representative works.

### MUSI 3075. VOCAL TECHNIQUE I. A credit. One hour of lecture per week. Prerequisite: MUSI 3170.

Individual training in the principles of vocal technique (breathing, vocalization of impostation) and in those of phrasing and style applied to the classical repertoire of art songs, opera and oratorio. This course of study will be projected in a normal sequence of four semesters. The class schedule will be fixed with the teachers in an enrollment in the music department during the normal enrollment period. The course is offered only to students majoring in music from the faculty of humanities.

## MUSI 3141. BAND TECHNIQUES I. Two credits. Three lecture hours per week. Prerequisites: Elementary knowledge of a band instrument and music, plus prior permission from the Band Director.

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. FUNDAMENTS OF MUSIC. Three credits. Three lecture and practice hours per week.

The fundaments 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. Prerequisite: INGE 3011

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 3172

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 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 participle and rigid bodies, work and energy; impulse and momentum.

#### 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 1006. CONSTRUCTION MATERIALS. Three credits. Three hours per week of lecture.

Study of construction materials. Includes: selection of materials, flooring, job site, foundation and pavements, concrete, wood and related products, masonry, ferrous metals and steel reinforcements, non-ferrous metals and alloys, plaster and acoustic materials, ceilings, walls, floors. It also includes materials, equipment, accessories, finishes, mechanical equipment and electrical equipment. Study trips to projects under construction.

#### TECI 1007. BUILDING CONSTRUC 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 2005. SURVEYING I. Three credits. Three lecture and practice hours per week. **Pre-requisites: MATE 3171**

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 3171, 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 2012. MATERIALS TESTING LABORATORY. Two credits. One lecture and three hours per week. Pre-requisite: TECI 1006

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

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 3171. 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 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 settleling. Study pavement materials and designs. Sub-grade, granular and stabilized bases. Asphalt surfaces.

### TECI 2049. INTRODUCTION TO COMPUTER SYSTEM. Two credits. Two hours of lecture and one of demonstration per week.

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 2109. INTERNSHIP IN TECHNOLOGY IN CIVIL ENGINEERING. Three credits.

The number of contact hours is 105 (96 hours of practice and 9 hours of seminar).

The course consists of a practice supervised and evaluated by the employer of a selected company and by the assigned teacher. This offers the opportunity to place the student in one of the branches of construction to apply acquired knowledge, which allow the transition from university to the world of work.

# TECI 2057. COMPUTER AIDED DRAFTING (BASIC CAD). Two credits. Two lecture and supervise drafting hours per week. Pre-requisite: TECI 1005 (For students of Technology in Industrial Engineering) Pre-requisite: TECI 1007 (For students of Technology in Civil Engineering in Construction).

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.

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 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 3171, TECI 1005. 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. 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 3171

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 3171

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 concurrenly 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 3007. ACCELERATED BUSINESS COMMUNICATION COURSE. Three credits. Three hours of conference per week. Prerequisite: INGL 3102.

It is a special course that includes the work required in INCO 3005-3006 plus a broader selection of business letter writing classes that delve deeper into the study in proportion to the students' ability.

### 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. Prerequisite: 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. Prerequisite: 443 or less on the Academic Aptitude Test (PAA), in the area of the English language.

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 3021. ORAL AND WRITING ENGLISH I. Three credits. Three lecture hours per week. Pre-requisite: INGL 3102 or 3104

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. Prerequisite: 444 to 554 on the Academic Aptitude Test (PAA) in the area of the English language.

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. Prerequisite: 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. Prerequisite: 555 or higher on the Academic Aptitude Test (PAA) in the area of 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 or INGL 3104

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 3117. CONVERSATIONAL ENGLISH FOR STUDIES AND TRAVEL. Three credits. Three hours per week of lecture.

Course designed for students who will study and travel to an English-speaking country. The students will participate in communicative activities such as experiences, dialogues, interviews and oral essays, simulations, etc. The environment will serve as a living laboratory where students will apply the skills learned in spontaneous situations in the shopping malls, restaurants, campus offices, transportation systems, parks of attractions, museums, theaters and sporting events, etc. Pronunciation will be emphasized, the development of vocabulary and problem-solving techniques that are necessary for effective communication in English.

### 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 3102 or 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 3228. LITERATURE BY WOMEN. Three credits. Three lecture hours per week.

Study of selected works written by women. Exploring how women have conceived their condition in society and how they have represented their roles through the poetry, fiction, drama and literary essays.

# 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 3102 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: 12 credits in English or second year honor student. Contemporary linguistic theory, with particular attention to English.

# INGL 4235. STRUCTURE/SYNTAXIS ANALYSIS OF ENGLISH & SPANISH. Pre-requisite: Two years in English and one year in Spanish or permission of the Director of the English Department.

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 or 12 credits in English or second year honor student.

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**

# COMP 3010. INTRODUCTION TO COMPUTER PROGRAMMING I. Three credits. Four hours per week of lecture. Prerequisite: MATE 3171 or MATE 3005.

Fundamental concepts of procedural programming. Topics include data types, control structures, functions, arrays, files, and the experience of running, testing, and debugging programs.

# COMP 3110. INTRODUCTION TO COMPUTER PROGRAMMING II. Three credits. Four hours per week of lecture. Prerequisite: COMP 3010.

Object-oriented programming methodology, topics include: search and sorting techniques, recursion and elemental analysis of algorithms.

# 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. Pre-requisite: Score of 690 or higher on the mathematics portion of the Academic Achievement Test (PAA).

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. Pre-requisite: Score greater than or equal to 600 in the mathematics part of the PAA test, or having passed the Introductory Mathematics course (MATE 3001).

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 3001.

Descriptive statistics and basic concepts of probability and statistical inference.

# MATE 3020. INTRODUCTION TO FUNDAMENTALS OF MATHEMATICS. Three. Credits. Three hours per week. Prerequisite: MATE 3031.

Introductory course in set theory and logic. It includes: propositional calculus and set algebra, finite and infinite sets, well-ordered sets, transfinite arithmetic, Peano's axioms, and the development of the system of real numbers.

# 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 3030. SUPERIOR GEOMETRY. Three credits. Three hours per week of lecture. Prerequisite: MATE 3172.

Review of Euclidean geometry with special attention to its logical structure. Geometry of the triangle and the circle. Elements of Non-Euclidean Geometry.

# 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. Pre-requisite: Score greater than or equal to 600 in the mathematics part of the PAA test, or having passed the Introductory Mathematics course (MATE 3001).

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 3171

Analytic trigonometry, complex numbers, plane analytic geometry, sequence and mathematical induction.

### MATE 3181 DISCRETE MATHEMATICS I. Three credits. Three hours of conference per week. Pre-requisite: MATE 3031

Discrete mathematics techniques: sets, algorithms, induction, recurrence, graphs and elementary combinatorics. This course can be taught in in-person, hybrid, distance, or online educational modalities.

# MATE 4009. ORDINARY DIFFERENTIAL EQUATIONS. Three credits. Three lecture hours per week. Pre-requisite: MATE 3032

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 autorization 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.

# MECU 3031. QUANTITATIVE METHODS FOR BUSINESS ADMINISTRATION I. Three credits. Three hours per week of lecture. Prerequisite: Score greater than or equal to 600 in the mathematics part of the PAA test, or having passed the Introductory Mathematics course (MATE 3001).

Pre-calculus for Business Administration students. Study of functions, in particular linear, quadratic, rational, irrational, interval-defined, exponential and logarithmic functions. Algebra of matrices and solutions of systems of equations by the method of reduction, emphasis on the application of these concepts in the solution of business administration problems such as: trend, depreciation, exchange ratio, optimization (income, cost), stabilization of values, financial mathematics and preparation of graphic schemes.

# MECU 3032. QUANTITATIVE METHODS FOR BUSINESS ADMINISTRATION II. Three credits. Three hours per week of lecture. Prerequisite: MECU 3031.

Differentiation, marginal analysis, optimization of economic functions. Introduction to integral calculus, probabilities for continuous functions.

# MECU 3004. QUANTITATIVE METHODS FOR BUSINESS ADMINISTRATION III. Three credits. Three hours per week of lecture. Prerequisite: MECU 3032.

Integration techniques for functions of a variable. The definite integral, improper integrals and their application to density functions. Differential equations, calculus of functions, Lagrange multipliers and their applications to commerce and economics. Taylor's theorem and its use to approximate functions.

#### **CHEMISTRY**

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 3002. GENERAL CHEMISTRY II. Four credits. Three lecture hours per week. Pre-requisite: QUIM 3001. 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 3003. GENERAL CHEMISTRY LABORATORY I. None credit. Three lecture hours per week. Co-requisite: QUIM 3001.

This laboratory will complement the topics studied in class. Includes representative experiments for each one of the areas covered in the course.

### QUIM 3004. GENERAL CHEMISTRY LABORATORY II. None credit. Three lecture hours per week. Co-requisite: QUIM 3002.

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. Co-requisite: QUIM 3025.

Training in the quantitative methods of volumetric, gravimetric, electrometric and spectrophometric 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. Co-requisite: QUIM 3031

Laboratory to complement the course of organic chemistry I.S. student are trained in basic laboratory techniques such as distillation, recrystalization, extraction and chromatography.

### QUIM 3034. ORGANIC CHEMISTRY LABORATORY II. None credit. Four lecture hours per week. Co-requisite: QUIM 3032

Laboratory to complement the course of organics chemistry II. Develops skills in anhydrous reactions, reductions, condensations and substitutions.

## QUIM 4000. INORGANIC CHEMISTRY. Three credits. Three hours per week of lecture. Prerequisite: QUIM 3002, QUIM 3004.

Discussion of modern inorganic chemistry: covalent bond theory, solid state study, solution chemistry. The study of coordination compounds, their structures, bonds, stability and reaction mechanisms is emphasized and the experimental methods used to study the structure and bond of inorganic compounds are considered.

# QUIM 4049. MEDICINAL CHEMISTRY. Three credits. Three hours per week of lecture. Prerequisite: QUIM 3032, QUIM 3034, QUIM 3012, QUIM 3014

Medicinal chemistry is a multidisciplinary science that combines the concepts of organic chemistry with pharmacology, biology and physiology. In this course students will apply the basic concepts about the study of the synthesis and structure of drugs learned in Organic Chemistry and the concepts that are learned in biology in relation to the understanding of the mechanism of action of the drug and the metabolism of drugs. The Medicinal Chemistry course is designed for third year and fourth year students (with the prerequisites of Organic Chemistry II and General Biology II.

# 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: QUIM 3032 or BIOL 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 4170. ENVIRONMENTAL CHEMISTRY. Three credits. Three hours of lecture per week. Requirement: QUIM 3032, QUIM 3034.

Study of the sources, reactions, transport, effects and fate of chemical species in water, soil and air. It also includes concepts on the management of toxic, hazardous waste, and on the chemical analysis of environmental pollutants. Presentation and oral discussion of current issues in the field of Environmental Chemistry and the influence of human activity on the environment.

# QUIM 4998. UNDERGRADUATE RESEARCH I. two credits. Six hours per week. Prerequisite: QUIM 3001, QUIM 3003.

Introduction to chemical research under the direction of professors of the department, where the student is provided with experience and training in scientific research.

### 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**

### ASTR 3005. DESCRIPTIVE ASTRONOMY. Three credits. Three hours per week of lecture.

The methods and results of astronomical investigations of the universe are presented. Includes: celestial mechanics, the solar system, properties of stars, stellar structure and evolution, death of stars. In addition, interstellar material, the Milky Way, galaxies. It ends with cosmology.

### 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.

# CIIN 1001. INTEGRATED SCIENCE I. Three credits. Three lecture hours per week. Corequisite: CIIN 1002.

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. Co-requisite: CIIN 1001.

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.

# FISI 1001. TECHNICAL PHYSICS I. Three credits. Three lecture hours per week. Co-requisite: MATE 1002, FISI 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 1002. LABORATORY OF TECHNICAL PHYSICS I. A credit. Three hours per week. Co-requisite: FISI 1001.

A laboratory of three hours per week divided as follows: one hour of theoretical discussion and two hours of experimentation that include mechanical and heat experiments.

# FISI 3001. GENERAL PHYSICS I. Three credits. Three hours per week of lecture. Prerequisite: MATE 3001. Co-requisite FISI 3003.

Introductory course to physics as a fundamental science. It offers a unified view of it, emphasizing the principles of conservation, the concepts of fields and waves, and the atomic point of view of matter. The first semester covers kinematics, particle dynamics, energy, oscillatory motion, dynamics of a particle system and the gravitational field.

#### FISI 3002. FÍSICA GENERAL II. Tres créditos. Tres horas semanales de conferencia. Prerequisito: FISI 3001, FISI 3003. MATE 3001. Co-requisito FISI 3004.

Este curso está dedicado al estudio de la electrostática, el electromagnetismo, ondas electromagnéticas y luz, y algunos principios fundamentales de la física moderna y la estructura de la materia.

# FISI 3003. GENERAL PHYSICS LABORATORY I. One credit. Three hours a week of laboratory. Co-requisite FISI 3001.

This course will complement the knowledge acquired by the student in class. It consists of a series of experiments aimed at verifying the laws of mechanics and thermodynamics.

### FISI 3004. GENERAL PHYSICS LABORATORY II. A credit. Three hours a week of laboratory. Co-requisite FISI 3002.

This course includes experiments in electromagnetism, optics and modern physics.

### FISI 3011. UNIVERSITY PHISIC I. Three credits. Three lecture hours per week. Pre-requisite: MATE 3031 or MATE 3021. Co-requisite: FISI 3013

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 3012. UNIVERSITY PHYSICS II. Three credits. Three hours per week of lecture. Prerequisites: FISI 3011, FISI 3013. Co-requisite: FISI 3014.

Second part of the introductory physics course in which differential and integral calculus skills are used. Course content includes: harmonic and wave motion, electrostatics, electric potential, direct current, electrical circuit components, magnetism, alternating current, Maxwell equations, wave theory of light.

# FISI 3013. UNIVERSITY PHYSICS LABORATORY I. A credit. Three hours per week. Co-requisite: FISI 3011.

Laboratory course aimed at developing experimental skills. Experiments will be conducted in the following areas: measurements, vectors, statics, rectilinear and rotational kinematics, dynamics, conservation of momentum and energy, and thermal properties of matter.

# FISI 3014. UNIVERSITY PHYSICS LABORATORY II. A credit. Three hours per week. Prerequisites: FISI 3011, FISI 3013. Co-requisite: FISI 3012.

Laboratory course aimed at developing experimental skills. Experiments will be conducted in the following areas: waves, static electricity, direct current, alternating current, Kirchhoff's laws, geometric optics and physical optics.

### FISI 3171. PHYSICS I FOR ENGINEERING. Four credits. Four hours a week of lecture. Prerequisite: MATE 3031. Co-requisite: FISI 3173.

Principles of mechanics, waves and thermodynamics for engineering and science. Principles of mechanics: physical quantities, motion, thermodynamics, energy, particle systems, rotational dynamics and fluid mechanics. Waves: harmonic oscillations and sound. Optics: geometric optics and physical optics.

### FISI 3172. PHYSICS II FOR ENGINEERING. Four credits. Four hours a week of lecture. Prerequisites: FISI 3171, FISI 3173, MATE 3032. Co-requisite: FISI 3174.

Principles of electricity, magnetism, optics and modern physics for engineering and science. Introduction to the fundamental concepts and laws of electromagnetism and modern physics: electrostatics, magnetic field, AC and DC circuits. Fundamental theorems of electromagnetism are studied, Maxwell's equations will be derived. The principles of modern physics, quantization of light and matter, wave-particle duality, Pauli's principle, electrical conductivity in solids, atoms and nuclei are introduced.

# FISI 3173. PHYSICS LABORATORY I FOR ENGINEERING. A credit. Three hours per week. Prerequisite: MATE 3031. Co-requisite FISI 3171.

Experiments in mechanics, waves and optics to complement the Physics I course aimed at verifying the laws of mechanics and thermodynamics. It also includes experiments in electromagnetism, optics and modern physics.

# FISI 3174. PHYSICS LABORATORY II FOR ENGINEERING. A credit. Three hours per week. Prerequisites: FISI 3171, FISI 3173. Co-requisite: FISI 3172.

Experiments in electricity, magnetism or modern physics to complement the Physics II course. Complement of the FISI 3172 course.

# FISI 4999. UNDERGRADUATE RESEARCH. Two credits. Six hours per week. Prerequisite: FISI 3011, FISI 3012

A research project in Basic Physics or Applied Physics supervised by a member of the Department.

#### OFFICE SYSTEMS AND TECHNOLOGY ADMINISTRATION

# ADOF 3115. TELECOMMUNICATIONS IN MODERN OFFICE. Three credits. Three hours per week of lecture. Prerequisite: ASOT 3015

Introduction to telecommunications in the business environment. The topics of telephony, local computer networks, communication channels, equipment and software will be explored. Emphasis on the application of telecommunications to facilitate the exchange of all types of information: voice, data, text, and image.

# ASOT 3006. DOCUMENT PRODUCTION – BASIC LEVEL. Three credits. Four hours per week of lecture

It is a lecture and practice course aimed at students of the Baccalaureate of Office Systems and other concentrations to develop basic techniques and skills (speed and accuracy). The use of the keyboard to the touch of the computer for the production of documents is taught. Emphasis is given to the transfer of basic skills in copywriting, cursive and statistical. It starts with the writing of documents: centralization exercises, memoranda, business letters and simple tables. The rules

for document production, word division, collation techniques and error correction are taught. Work attitudes and habits are developed.

# ASOT 3007. KEYBOARD USE FOR PERSONAL USE. Three credits. Three hours of lecture per week.

Teaching the use of the alphanumeric keyboard by touch through the use of the electronic typewriter or computer for personal use and development of basic skills. Introduction to writing and producing documents, such as: letters, envelopes, vertical and horizontal centralization, tabulations and reports. Emphasizes good work habits, basic techniques, and error checking.

# ASOT 3008. DOCUMENT PRODUCTION – INTERMEDIATE LEVEL. Four credits. Four hours a week of lecture. Prerequisite: ASOT 3006.

It is a lecture and practice course aimed at students of the Baccalaureate of Office Systems to continue the development of basic techniques and skills in the production of documents. Emphasis is given to the rules of formatting, language, word division, matching techniques, business letters with special annotations, memoranda, tables and reports. Thinking skills are applied in document creation and editing. The development of attitudes and work habits continues. This course has to be passed with a grade of no less than "C".

### ASOT 3010. DOCUMENT PRODUCTION – ADVANCED LEVEL. Four credits. Four hours a week of lecture. Prerequisite: ASOT 3008.

It is a lecture and practice course aimed at students of the Bachelor in Office Systems for the production of commercial documents, such as: purchase orders, invoices, financial statements, itineraries, press releases, reports and legal documents. Basic skills and the production of business letters and memoranda are reinforced. Matching techniques are applied during the editing process of the formats corresponding to the documents created. The development of thinking skills continues through reinforcement exercises and the creation and editing of documents. Emphasis is given to the development of attitudes and work habits.

### ASOT 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.

### ASOT 3016. BASIC ACCOUNTING CONCEPTS FOR THE OFFICE PROFESSIONAL. Four credits. Four hours a week of lecture.

It is a lecture and practice course aimed at students of the Baccalaureate in Office Systems. It prepares the student to perform basic accounting procedures in different companies. It presents the recording of transactions in the journal, the transfer to the wholesale and the preparation of financial reports. Includes petty cash management and payroll preparation. It incorporates the use of the computer for the electronic recording of business transactions, in the preparation of financial statements and in other related procedures.

# ASOT 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.

### ASOT 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.

# ASOT 3217. INTRODUCTION TO SPANISH. Four credits. Four lecture hours per week. Pre-requisite: ESPA 3101, ASOT 3329

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.

# ASOT 3305. INFORMATION PROCESSING. None credit. Two lecture hours per week. Co-requisite: ASOT 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.

### ASOT 3306. INFORMATION PROCESSING LABORATORY. None credit. Two lecture hours per week. Co-requisite: ASOT 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.

# ASOT 3317. INTRODUCTION TO ENGLISH TRANSCRIPTION. Four credits. Four lecture hours per week. Pre-requisites: INGL 3101

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.

# ASOT 3327. TRANSCRIPTION IN SPANISH. Four credits. Four lecture hours per week. Pre-requisites: ASOT 3008, ASOT 3217.

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".

# ASOT 3328. TRANSCRIPTION IN ENGLISH. Four credits. Four hours of lecture per week. Pre-requisites: ASOT 3008, ASOT 3317.

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".

#### ASOT 3329. SHORTHAND IN SPANISH. Four credits. Four hours a week of lecture.

It is a lecture and practice course aimed at students of the Baccalaureate in Office Systems and other concentrations for the development of skills in writing, reading and dictation taking in the

Gregg shorthand system. It includes the teaching of principles, grammatologists, phrases and vocabulary necessary for making dictation and transcription by hand.

# ASOT 3416. CODING OF DIAGNOSES AND PROCEDURES. Three credits. Three hours of conference per week.

The required duties of the medical biller and the importance of maintaining professional certification are discussed. The student is trained in the basic coding standards and the use of the ICD-CM (International Classification of Diseases-Clinical Modification) and CPT (Current Procedural Terminology) books so that the knowledge acquired is used in the performance of functions as a medical biller.

# ASOT 3505. ADMINISTRATIVE PROCEDURES FOR OFFICE PROFESSIONALS. Four credits. Four hours a week of lecture. Prerequisite: ASOT 3008.

It is a lecture course to teach students of the Baccalaureate in Office Systems the administrative procedures of the modern office. Emphasis is given to the duties, responsibilities, professional image and the characteristics and qualities of the administrative assistant. The principles of decision making and effective time management for the best functioning of the office are taught.

# ASOT 4005. INTEGRATION OF APPLICATION SOFTWARE IN THE ELECTRONIC INFORMATION. Four credits. Four hours of lecture per week.

**Pre-requisite: ASOT 3305** 

Teaching of word processing, spreadsheets, and database advanced function. Integration of text to other application software's.

### ASOT 4008. SIMULATED OFFICE. Three credits. Three hours per week of lecture. Prerequisites: ASOT 3505, ASOT 4005

Course designed for the student to apply the skills and competencies acquired in previous courses in a simulated work environment. Emphasis will be given to teamwork using simulated projects in the administrative field. The student will be exposed to a wide variety of situations in which he will apply good judgment, initiative, decision making, organization and work planning in a given time. It is designed to offer the opportunity to work in day-to-day administrative activities of a modern office, which includes the areas of accounting, word processing, electronic data sheets, computerized office, operation of different machines, used in the administration process, customer service and interpersonal relationships with emphasis on community service.

# ASOT 4030. DESKTOP PUBLISHING. Three credits. Three hours of lecture per week. Pre-requisite: ASOT 3008.

Teaching of the basic computer concepts of desktop publishing. Training in the design, creation, and production of professional publication in the office environment.

### ASOT 4036. PROCEDURES OF THE LEGAL OFFICE. Four credits. Four lecture hours per week. Pre-requisites: ASOT 3010, ASOT 3327.

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.

### ASOT 4038. OFFICE ADMINISTRATION. Three credits. Three lecture hours per week. Pre-requisite: ASOT 3505.

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.

### ASOT 4040. PLANNING OR IMPLEMENT AND USER INFORMATION SYSTEM. Three credits. Three lecture hours per week. Pre-requisite: ASOT 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.

## ASOT 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.

# ASOT 4046. MEDICAL PLANS BILLINGS. Three credits. Three lecture hours per week. Pre-requisite: ASOT 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.

### ASOT 4505. IN SERVICE TRAINNING TECHNIQUES. \*\*Three credits. Three lecture hours per week. Pre-requisites: ASOT 3305, ASOT 3505.

Teaching of techniques for employees' training in office systems. Implementation, evaluation, and management of training program in the organizational environment.

### ASOT 4985. PRACTICUM AND SEMINAR. Five credits. Pre-requisites: ASOT 3327, ASOT 4005, ASOT 4038.

Supervised practice in offices of the community selected as centers of practice. The period of practice is equivalent to 200 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.

#### PHYSICAL THERAPHY

### 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 theraphy and the bachellor'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. Co-requisite: BIOL 1014.

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. No credits. Three lecture hours per week.

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 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. Pre-requisite: BIOL 1011. Co-requisite: TEFI 1007, BIOL 1013.

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: 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, TEFI 1016, TEFI 1008, BIOL 1011, BIOL 1013, TEFI 1037.

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 2007, TEFI 2009, TEFI 1038, TEFI 2001.

This is the third supervised practical experience where the students will treat patients with the different procedures used n Physical Therapy.

# TEFI 2005. THERAPEUTIC EXERCISE I. Four credits. Three lecture hours per week. Pre-requisites: BIOL 1011, BIOL 1013, TEFI 1015. Co-requisites: TEFI 2006.

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, TEFI 2001. 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 an 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 2001, TEFI 2005. Corequisite: TEFI 2013.

Lectures and demonstrations of the Physical Therapy Programs which are used when working with patients with different medical conditions, specially in relation t the respiratory, cardiovascular, nervous and muscular-skeletal systems. Includes visits to hospitals and rehabilitation centers.

# TEFI 2013. PHYSICAL THERAPY APPLICATION LABORATORY FOR PHYSICAL DYSFUCTION. 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, TEFI 1015. FOR THE ASSOCIATE DEGREE IN PHYSICAL THERAPY SCIENCE.

Lectures, demonstrations and practice related to different body movements, the joints in wich they occur and the muscles responsible for these actions. Includes muscle innervations and general concepts of body mechanics.

# TEFI 1037. INTRODUCTION PHYSICAL DYSFUNCTION. Four credits. Four hours per week of lecture. Co-requisite BIOL 1011.

This course includes lectures and discussion about the definition, etiology, pathological processes, clinical manifestations, courses and general principles of treatment of different medical conditions. Conditions affecting the nervous, respiratory, cardiovascular, and musculoskeletal systems are emphasized. General concepts of health and disease and general concepts of human growth and development are included.

### TEFI 1038. PSYCHOSOCIAL DYSFUNCTION. Three credits. Four hours per week of lecture. Prerequisite: PSIC 3025.

Study of the etiology, symptomatology and treatment of psychosocial disorders, the legal implications of managing them and the emotional implications of physical disabilities. Review of the different theories on personality development, adjustment mechanisms and factors involved in interpersonal relationships.

# 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. 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 CONCEPS 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.

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 3235. 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. 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. Co-requisite: TATL 4003, TATL 4004.

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. 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. 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. Co-requisite: TATL 4003, TATL 4035, TATL 4065.

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.

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

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.

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.

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#### 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 biopsychosocial 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-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. 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**

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.

#### 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 UNDERS ENGLISH IN TODAY'S. One credit. Two hours per week.

This curse 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 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 students and problems analysis that require psychological techniques. Army organization. Leadership Laboratories.

# CIMI 4012. FUNDAMENTALS OF MILITARY STRATEGY. Four credits. Prerequisite: 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 form 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.

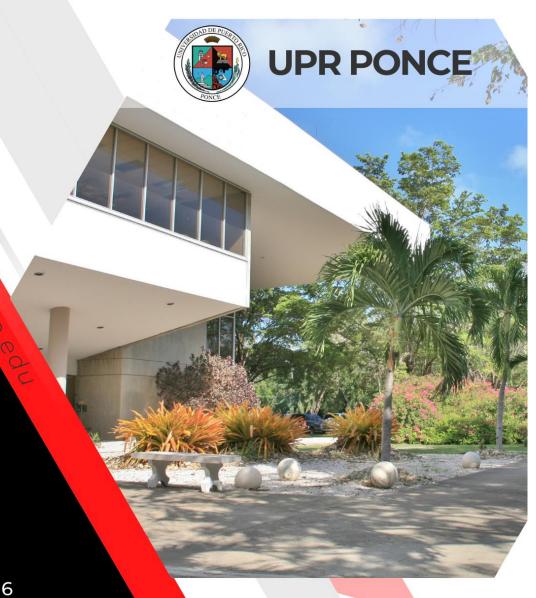
#### CORDOVA CONGRESSIONAL INTERNSHIP PROGRAM COURSES

**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.

# Faculty



CATALOG 2022-2026

### BUSINESS ADMINISTRATION AND COMPUTER SCIENCES DEPARTMENT FACULTY

**Barea Lugo, Sebastián.** Ph.D., MA (Economy); New York State University in Binghamton; MBA (Finance), Inter American University of Puerto Rico; Assistant Professor.

**Correa González, Dalmid.** MBA (Finance), Inter American University of Puerto Rico; Assistant Professor.

**Daza Portocarrero, Luis A.** Ph.D., Program in Computer and Information Science and Engineering (CISE), University of Puerto Rico, Mayaguez Campus (RUM), Assistant Professor.

**González Vargas, Evelyn.** Juris Doctor, MBA (Human Resources), Pontifical Catholic University of Puerto Rico; D.E.A., University of Valladolid; Assistant Professor.

**Lazo Villela, Santiago.** DBA (Information Systems), Turabo University, Puerto Rico; Assistant Professor.

**López Robledo, Diana.** DBA (Information Systems Management), Ana G. Méndez University, Associate Professor.

**Madera Quiles, Roberto.** Post Doctorate (Maritime Logistics & Transportation) Maine Maritme Academy- 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.

**San Miguel Quiñones, Ismael**. DBA (Management Administration), Grenoble Ecole de Management, Francia; Assistant Professor.

**Santini Martinez, Miguel.** DBA (Management Administration), Pontificia Universidad Católica de Puerto Rico; CPA, Certified Fraud Examiner; Assistant Professor.

**Valero Melgarejo, Hernando**. MS Statistical Computing, University of Central Florida; Associate 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.

#### LIBRARY FACULTY

**Diaz Simmons, Brett D.** BA (History), University of Florida, Gainesville, FL; MS (*Master* of *Science in Library and Information Studies*) Florida State University, Tallahassee, FL. Librarian II.

**Vélez García, Mariely.** BA (Primary Education), Pontifical Catholic University of Puerto Rico, Ponce, PR; MLS (Master in Library Science) University of Puerto Rico, Rio Piedras Campus, P.R. Librarian I.

#### **BIOLOGY DEPARTMENT FACULTY**

**Ayala López, Wilfredo.** Ph.D. (Chemistry: Biochemistry and Molecular Biology), Indiana Purdue University. Associate Professor.

**Forestier Montalvo, David**. BS (Biology), University of Puerto Rico, Mayagüez University Campus; MS (Marine Biology), University of Puerto Rico, Mayagüez University Campus; Full Professor.

**Maldonado Hernández, Rafael.** Post-doc (Molecular Biology, Structural Biology, and Biochemistry) University of Puerto Rico, Medical Sciences. Assitant 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.

**Ríos Franceschi, Alejandro.** BS (Biology – Zoology) University of Puerto Rico, Mayaguez University Campus; MS (Biology - Ecology and Herpetology) University of Puerto Rico, Mayaguez Campus; PhD (Biology - Ecology, Biodiversity and Evolution with Emphasis in Bioacoustics) University of Puerto Rico, Río Piedras University Campus. Assistant Professor.

**Rivera Quiñones, Cynthia.** BS (Biology) Tulane University in Louisiana; Ph.D. in Biomedical Sciences School of Medicine of Ponce, Puerto Rico; Post Doc in Neuroimmunology at Mayo Clinic and Foundation. Assistant Professor.

**Rojas Vázquez, Gloria M.** BS (Biology) University of Puerto Rico, Mayagüez University Campus; MS (Botany) University of Puerto Rico, Mayagüez University Campus. Associate Professor.

**Ruiz Rivera, Abigaíl.** BS (Biology) University of Puerto Rico Cayey Campus, Ph.D (Biomedical Sciences) Ponce School of Medicine, Puerto Rico, Post doc (Cellular and Molecular Biology) University of South Florida. Associate Professor.

**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

**Del Pozo Santos, Miguel** Ph.D. (Social Anthropology) University of Manchester in England. Associate Professor.

García Ellín, Juan Carlos Ph.D. (Geography) University of California, Los Angeles Associate Professor.

**Montes Ojeda, Ineabelle** Ph.D. (Industrial Organizational Psychology), Pontificial Catholic University of Puerto Rico; Full Professor

**Montero Arroyo, Mayra** Ph.D. (Industrial Organizational Psychology), Pontificial Catholic University of Puerto Rico; Full Professor

**Sánchez Peraza, Luis Raúl.** BA (Psychology), MA (Psychology), Ph.D. (Clinical and Community Psychology) University of Puerto Rico (RPC); Associate Professor.

**Santiago Pagán, Waleska** Psy.D (Clinical Psychology), Carlos Albizu University; Assistant Professor.

**Sepúlveda Santiago Marisel**. BS. (Pre-Medicine), University of Puerto Rico in Mayaguez, Ph.D. (Psychology), Pontifical Catholic University of Puerto Rico; Assistant Professor

**Torres Olivencia, Arelis.** BA (Psychology), University of Puerto Rico in Arecibo; PsyD (Clinical and Community Psychology), Carlos Albizu University, San Juan; Assistant Professor.

#### COUNSELING AND ORIENTATION DEPARTMENT FACULTY

**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.

**Nazario Jiménez, Mariel.** B.A. Office Systems, University of Puerto Rico in Ponce; EAT, Professional Certificate in Technological Assistance, University of Puerto Rico Medical Sciences Campus; M.A., Rehabilitation Counseling, University of Puerto Rico at Río Piedras. Counselor I.

Ramírez Rivera, Marisel. B.A., Office Systems, University of Puerto Rico at Ponce; M.S., Health Sciences and Substance Abuse, Caribbean Central University; Ed. D., Counseling and Orientation, Interamerican University of Puerto Rico Metropolitan Campus. Licensed Professional Counselor II.

**Ríos Ruiz, Efraín J.** B.A., Psychology, University of Puerto Rico, Mayagüez Campus; Internship in Clinical Psychology, Jackson Memorial Hospital/University of Miami; PsyD., PhD in Clinical Psychology, Ponce School of Medicine. Postgraduate Studies, Psychodynamic Developmental Neuroscience, University College London, England. Mentoring Research Program in Mental Health, University of Puerto Rico, Medical Sciences Campus. Clinical Psychologist III.

**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

**Díaz Salichs, Héctor M.** MAE (Physical Education), Inter American University of Puerto Rico; Assistant Professor.

**Pagán Rivera, Carlos H.** MAED (Administration and Supervision), University of Phoenix; Full Professor.

**Rivera Caño, Neyla I.** Ed.D. (Instructional Technology and Distance Education), Nova Southeastern University Florida, Associate Professor.

**Rivera Sánchez, Jesús M.** Ph.D (Educational Management), Pontifical Catholic University of Puerto Rico. Full Professor.

**Rivera Toledo, Onix R.** MS (Physical Education/Exercise Physiology GPA), Florida State University; Full Professor.

**Rodríguez Rodríguez, Lourdes M.** MA (Agricultural Education); University of Puerto Rico in Mayagüez; Associate Professor.

**Villafañe Santiago, Marilia.** Ed.D. (Instructional Technology and Distance Education), Nova Southeastern University Florida; 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.

**Collazo Hernández, Efrén.** MS (Athletic Therapy), East Stroudsburg University, Pennsylvania. DATc (Athletic Therapy), Moravian University, Pennsylvania. Instructor

**Encarnación Colón, Enrico.** MSAT (Athletic Therapy), Long Island University, New York, Instructor.

**Ortiz Nieves, Alma,** DPT (Doctorate in Physical Therapy) Nova Southeastern University, Fort Lauderdale, Florida, MPT (Physical Therapy) Loma Linda University, California, BS (Physical Therapy), University of Puerto Rico Medical Sciences Campus, Río Piedras, Puerto Rico, Associate Professor.

**Rodríguez Rodríguez, Fernando A.** Ph.D. (Biomedical Sciences, Human Anatomy, and Physiology), School of Medicine, Ponce, Puerto Rico; Full Professor.

**Soto Ortiz, Carmen I.** DPT (Doctorate in Physical Therapy) Nova Southeastern University, Fort Lauderdale, Florida, MS (Scientific Analysis of the Movement of the Human Body), Interamerican University of Puerto Rico, San Germán Campus, BS (Physical Therapy), University of Puerto Rico, Campus of Medical Sciences, Río Piedras, Puerto Rico; Professor.

#### **AD-HONOREM FACULTY**

**Adames, Jason.** PT. Clinical Education Coordinator of the Center. Outside the Box Rehab and Performance, Rincón, Puerto Rico.

**Adorno, Angel.** PT. Center Clinical Education Coordinator, La Montaña Rehabilitation, Manatí, Puerto Rico.

**Arocho, Antonio.** PT. Center Clinical Education Coordinator, Physical Rehabilitation Center, San Germán, Puerto Rico.

Aviles, Frances. PT. Center Clinical Education Coordinator, LOAVI Physical Therapy Clinic.

**Barreto, Omar.** PT. Center Clinical Education Coordinator, Alivius Therapy

Butler, Lucy. PT. Clinical Education Coordinator of the Center, Genesis I and Genesis II.

**Cortes, Benito.** PT. Clinical Education Coordinator of the Center, Hospital Metropolitano Dr. Susoni, Arecibo, Puerto Rico.

**Fernandez, Maria.** PT. Clinical Education Coordinator of the Center, Bayamón Physiatric Group, Carimed, Bayamón, Puerto Rico.

**González, Sonia.** PT. Clinical Education Coordinator of the Center, La Concepción Hospital, San Germán, Puerto Rico.

**González, Luisa.** PT. Center Clinical Education Coordinator, Boulevard Health Care Program, Toa Baja, Puerto Rico.

**Humaran, Yara.** PT. Center Clinical Education Coordinator, Physical and Aquatic Therapy Center, Manatí, Puerto Rico.

**Mena, Nerie.** PT. Center Clinical Education Coordinator, Cruz & Mena Physical Therapy, Mayaguez, Puerto Rico.

**Millet Ivelisse.** PT. Center Clinical Education Coordinator, Nueva Vida Physical and Athletic Therapy Center, Arecibo, Puerto Rico.

**Otero, Sylvia.** PT. Center Clinical Education Coordinator, BOAZ Physical Therapy Center, Arecibo and BOAZ Vega Baja, Puerto Rico.

**Ponce de León, Irma.** MPT. Center Clinical Education Coordinator, Irma Ponce de León Physical Therapy Center, Yauco, Puerto Rico.

**Income, Xiomara.** PT. Center Clinical Education Coordinator, La Esmeralda Physical Therapy Clinic.

**Rodríguez, Ana**. PT., Clinical Education Coordinator of the Center, Centro Terapéutico del Sur. Ponce PR.

**Rodríguez, Hector.** PT. Center Clinical Education Coordinator, Mountain Physiotherapy and Rehabilitation Clinic, Utuado, Puerto Rico.

**Rodriguez, Oneida.** PT. Center Clinical Education Coordinator, Therapeutic Services Center, Lajas, Puerto. Rich.

**Rosado, Brenda.** PT. Clinical Education Coordinator of the Center, Instituto Centro Ayuda Children with Disabilities of Isabela, Inc., (CANII) Isabela, Puerto Rico.

**Sánchez, María.** PT. Center Clinical Education Coordinator, Physical Therapy and Rehabilitation Clinic, Maunabo, Puerto Rico.

**Sánchez, María.** PT. Center Clinical Education Coordinator, Physical Therapy and Rehabilitation Clinic, Naguabo, Puerto Rico.

**Santiago, Roberto.** PT. Center Clinical Education Coordinator, Concepto Físico Private Office, Guayama, Puerto Rico.

**Santiago, Teresita.** PT. Center Clinical Education Coordinator, Jicmenet Center, Orocovis, Puerto Rico.

**Soto, Ivette,** PT, Center Clinical Education Coordinator, Yabriel Physical Therapy Clinic, Lares, Puerto Rico.

**Troche, Lourdes.** PT. Clinical Education Coordinator of the Center, Wilma Vázquez Hospital, Vega Baja, Puerto Rico.

**Torres, Sol.** PT. Clinical Education Coordinator of the Center, Fisioterapia del Norte, Vega Baja, Puerto Rico.

**Vargas, Astrid.** PT. Center Clinical Education Coordinator, Moca Physical Therapy Center, Moca, Puerto Rico.

**Vázquez, Awilda.** PT. Center Clinical Education Coordinator, Juana Díaz Physical Therapy Center, Juana Díaz, Puerto Rico.

**Vázquez, Lilliam.** PT. Clinical Education Coordinator of the Center, Physiatric Institute of Aibonito, Puerto Rico.

#### SPANISH DEPARTMENT FACULTY

**Barrios Rosario, Sheila**. Ph.D. (Literature of Puerto Rico and the Caribbean), Center for Advanced Studies of Puerto Rico and the Caribbean, Old San Juan; Professor.

**Bauzá Echevarría, Nellie**. Ph.D. (Spanish American Literature), Temple University, Pennsylvania; Professor

**Madera Cabán, José Víctor**. Ph.D. (Hispanic Studies), University of Puerto Rico (RRP); Associate Professor.

**Santiago Erans, Migdalia**. Ed.D., (Curriculum and Teaching and subspecialty in Spanish), University of Puerto Rico (RRP), Professor.

**Irizarry Natal, Federico**. Ph.D. (Hispano-American Literature), University of Chile (Santiago de Chile), Assistant Professor.

#### **HUMANITIES FACULTY**

**Beauchamp Montalvo, Michele.** Ph.D. (Philosophy and History of Science), University of Salamanca, Spain; Assistant Professor

**González Sotomayor, Luis.** MA (Curriculum and Teaching of History), Pontifical Catholic University of Puerto Rico; Associate Professor.

**Nadal Quirós, Ana M.** Ph.D. (Spanish and Latin American Literature), University of Salamanca, Spain; Assistant Professor.

**Villalón Sorzano, José R.** Ph.D. (Sacred Theology), Pontifical Lateran University; Professor. The University of Puerto Rico awarded him the designation of Distinguished Professor in June 2021.

Zapata Oliveras, Carlos R. Ph.D. (History), University of Pennsylvania; Professor.

#### ENGINEERING DEPARTMENT FACULTY

**Yumbla León, Luz Gerardina.** MBA (Architecture – Urbanism), National Autonomous University of México; BS (Architecture), Cuenca, Ecuador State University; Assistant Professor.

**Vázquez Torres, Drianfel E.** Ph.D. (Civil Engineering–Structure), MSCE (Structure), BA (Civil Engineering), University of Puerto Rico (RUM); Associate Professor.

**Vega Rosado, Geoffrey.** PhD (Civil Engineering – Structure), Polytechnic University of Puerto Rico, MSCE (Structure), BSCE (Civil Engineering), BSST (Surveying and Topography) University of Puerto Rico (RUM) Assistant Professor.

**Zaragoza Rodríguez, Antonio.** MSCE (Structure), University of Puerto Rico (RUM); BSCE, University of Guanajuato in México; Civil Engineer; Associate Professor.

#### **ENGLISH DEPARTMENT**

Alicea Castillo, Jennifer. Ed.D (Curriculum and Teaching), Pontifical Catholic University of Puerto Rico; Professor.

LeCompte Zambrana, Pier Angeli. Ph.D Languages and Literatures of the English Speaking Caribbean; Associate Professor.

Megill Segarra, Regino. M.A. (TESOL), Inter-American University of San Germán; Assistant professor.

Méndez Seguinot, Michelle M. Ed.D (Curriculum and Teaching), Pontifical Catholic University of Puerto Rico; Assistant Professor.

Ortiz Soto, Lourdes. Ed.D (Curriculum and Teaching), Pontifical Catholic University of Puerto Rico; Associate Professor.

Rodriguez Tomasini, Edda. Ed.D (Curriculum and Teaching), Pontifical Catholic University of Puerto Rico, Associate Professor.

Torres Labastide, Frances. M.A. (TESOL), Pontifical Catholic University of Puerto Rico, Auxiliary Professor.

#### MATHEMATICS DEPARTMENT FACULTY

Aparicio Cuello, Rafael A. Ph.D. (Mathematics), University of Puerto Rico (RRP); Assistant professor.

**Morales Tomassini, Leonardo.** Ph.D. (Mathematics), University of Iowa; MS (Mathematics), University of Puerto Rico (RPC); Associate Professor.

**Ortiz Rodríguez, Wilfredo.** MS (Mathematics), University of Puerto Rico (RPC); Associate Professor.

#### CHEMISTRY AND PHYSICS DEPARTMENT FACULTY

**Bailón Ruiz, Sonia J.** PhD (Applied Chemistry), University of Puerto Rico at Mayagüez. Assistant Professor.

**Camacho Berríos, Adrián A.** PhD (Physics-Chemistry) University of Puerto Rico, Río Piedras Campus, Assistant Professor.

**Cedeño Mattei, Yarilyn.** PhD (Applied Chemistry), University of Puerto Rico in Mayagüez. Assistant Professor.

Feliciano Market, Eunice. PhD (Applied Chemistry), University of Puerto Rico in Mayagüez. Professor.

**Rivera Ramos, Milton.** PhD (Chemical Engineering) University of Puerto Rico, Mayagüez Campus, Associate Professor.

Rodríguez Vélez, Melvin H. MS (Physics), University of Puerto Rico, Río Piedras Campus. Instructor.

**Santos Santori, Joycette.** PhD (Bioinorganic Chemistry), University of Puerto Rico, Rio Piedras Campus, Post PhD (Chemistry Education), Colorado State University. Professor.

#### OFFICE SYSTEMS DEPARTMENT FACULTY

**Rodríguez Rodríguez, Yannira.** MA (Business Education), Inter American University of Puerto Rico; Assistant Professor.

**Román Ortiz, Marilyn.** MA (Business Education) Inter American University of Puerto Rico; Assistant Professor.

**Torres Negron, Doris S.** MS (Commercial and Computer Education), University of Illinois at Urbana Champaign; Doctoral Degree Candidate, Inter American University of Puerto Rico; Full Professor.

#### MILITARY SCIENCES DEPARTMENT FACULTY

Campos, Richard. Drill Instructor.

**Delgado, Denisse**. English Professor, ROTC Program. MA in Teaching English as a Second Language, Inter American University of Puerto Rico in San Germán. MS in Biology, University of Puerto Rico at Mayagüez. BS in Biology, Inter American University of Puerto Rico in San Germán.

**Hernández, William**. Assistant Professor of Military Sciences, BBA, 2002, Inter American University of Puerto Rico, Ponce.