



Sistema Universitario Ana G. Méndez
Universidad Metropolitana

Undergraduate Catalog

Academic Year
2016-2017

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The University reserves the right to revise or change rules, charges, fees, schedules, courses, requirements for degrees, and any other regulation affecting students whenever considered necessary or desirable.

Registration by students means that there is an agreement to comply with all regulations of the University whenever approved.

The University reserves the right of admission, readmission or registration for each semester or session, separately.

The University reserves the right to cancel any course for insufficient enrollment and to phase out any program.

Universidad Metropolitana
Apartado 21150
Río Piedras, P.R. 00928

We hereby certify that this is the current edition of the Institution Catalogue of UMET for the academic years 2016-2017.

August, 2016



Carlos M. Padín Bibiloni, PhD
Chancellor
Universidad Metropolitana

CHANCELLOR MESSAGE



Welcome to Universidad Metropolitana (UMET)! Before you begin browsing through our catalog, we would like to tell you a little about the University's historic background.

UMET is part of the Ana G. Méndez University System (AGMUS). As a non-profit higher education institution, we were originally established as a secondary campus of the former Puerto Rico Junior College. In 1980 we became autonomous under the name Colegio Universitario Metropolitano. In 1985, we were authorized to change the name to Universidad Metropolitana.

Since the beginning, our principal goal has been to evolve into an innovative university that would have a major impact on the island. The reception we've received as a result has positioned us as an institution of academic excellence that is distinguished in the areas of undergraduate scientific research, technology, and environmental affairs.

We are committed to providing quality continuing education that is in harmony with the demands of the job market. For this reason we are continually revising our academic programs. We also offer programs that provide study alternatives for both younger students and adults, giving them the opportunity to earn a university degree.

We have participated successfully in inter-university sports and seen significant achievements in the Inter-University Athletic Organization (UAO) matches, in both the men's and women's divisions.

We invite you to continue browsing through the catalog, which will provide you with more information on the options available at our main campus in Cupey, as well as at our University Centers in Aguadilla, Bayamón and Jayuya.

Carlos M. Padín Bibiloni, PhD
Chancellor
Universidad Metropolitana

POLICY STATEMENT

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

Due to the changing nature of professions, the institution is continuously reviewing and restructuring many of its academic programs in an effort to enhance their quality, improve efficiency, and to comply with requirements of professional boards, accrediting agencies, and governmental laws and regulations, among others. In that process, some of the programs and courses mentioned in this catalogue may be modified, consolidated with other programs or courses, or eliminated.

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

UMET's General Information

OUR PROFILE

Universidad Metropolitana is a private post-secondary educational institution and a member of the Ana G. Méndez University System (AGMUS), a non-profit organization. A Board of Directors of fifteen members governs the AGMUS. Five members of the board are permanent and the Board appoints ten to four-year terms.

The Executive Officers of the Central Administration are: The President, the Executive Vice-President, the Vice-President for Financial Affairs, the Vice President for Planning, Research, and Academic Affairs, the Vice-President for Administrative Affairs, the Vice-President for Marketing and Student Affairs, and the Vice-President and General Manager for Channel 40. They are selected by the Board of Directors.

The by-laws of the Ana G. Méndez University System stipulate the objectives, powers, officers, committees, meetings and financial affairs of the Institution. They also specify the way in which the by-laws and regulations of each one of the autonomous institutions will be approved.

The University does not reject or deny the legitimate rights, or discriminate against any person for reason of race, sex, color, physical handicap, social condition, nationality, age, political affiliation, religious, social or trade union beliefs.

HISTORY OF UNIVERSIDAD METROPOLITANA

More than six decades ago, three distinguished educators: Ana G. Méndez, Florencio Pagán Cruz, and Alfredo Muñiz Souffront recognized the need for new approaches in education to keep pace with social and economic changes in Puerto Rico. In 1949, they laid the groundwork for the creation of modern, flexible institutions of higher education.

The first of such institutions, Puerto Rico Junior College, opened its doors in 1949. It started with a campus in Río Piedras, and in 1959 moved to new facilities in Cupey. In 1969, the founders organized the Ana G. Méndez Educational Foundation (AGMEF) in order to extend their twenty years of experience in higher education to a broader population. Presently, the Ana G. Méndez University System operates three institutions: Universidad del Turabo (UT), Universidad del Este (UNE), Universidad Metropolitana (UMET), and WMYJ-TV Station Channel 40.

As part of this ongoing development, the Colegio Universitario Metropolitano was established in the Cupey campus in 1980, and became Universidad Metropolitana in 1985, when UMET began to offer the first Master Degrees in Business Administration and in Education. The first doctoral degree in Education started in 2004.

VISION

Universidad Metropolitana will be recognized globally as a leading higher education institution for its inclusiveness, its excellence and innovation in teaching, outstanding research and community engagement. UMET will be the established leader in environmental affairs and education in Puerto Rico and the Caribbean, promoting policies and best practices for a sustainable and competitive economy.

MISSION STATEMENT

Universidad Metropolitana is a private, not for profit higher education institution committed to fulfill a relevant role in the social and economic development of Puerto Rico. Its mission is to provide a diverse student body with opportunities to acquire professional and personal competencies through education, research and community service in order for them to become agents of change, life-long learners and responsible contributors to a globalized and sustainable world.

TO FULFILL ITS MISSION, UMET:

- Subscribes to a “*flexible admissions policy*” in order to serve a diverse student body. By “*flexible admission*”, UMET means the availability of total open access to university level education while maintaining more specific and selective admission criteria in some designated academic areas. Admissions policies are nondiscriminatory to any eligible applicant regardless of age, race, color, national origin, religion, gender, marital status, academic or economic disadvantage, or disability.
- Provides its students with innovative undergraduate, graduate, technical and continuing education programs through different learning modalities in the fields of Social Sciences, Humanities and Communications; Nursing and Allied Health Sciences; Education; Business; Environmental Affairs; and, Sciences and Technology.
- Fosters undergraduate and graduate academic and scientific research as a critical element for the creation of knowledge, as well as to promote innovation and economic development.
- Develops local and international internship opportunities; collaborative alliances; student and faculty exchange programs with other prestigious institutions; and, public engagement and community service in order to enrich the student’s learning experience.
- Believes and commits to the enhancement of the “First Year Students’ Experience” as a transition period to university life and to provide an optimal, inclusive environment of learning and support at the beginning of students’ life until graduation.

- Provides students the opportunity to develop a world vision and to become members of pluralistic communities by interacting with people with different backgrounds, cultures, ideas and values.
- Delivers and implements comprehensive curricular and co-curricular initiatives to engage the students in knowledge acquisition for personal and professional growth and life-long learning; and, to become engaged citizens, leaders and active contributors to society.
- Recruits, develops, and retains highly sensitive and qualified faculty members, committed to teaching, academic excellence and the diverse needs of our students.
- Develops and implements strategies and support programs geared to enhance student academic achievement to guarantee their persistence, retention and degree completion within a flexible admissions' policy.
- Implements systematic and ongoing assessment of the learning process in curriculum and co-curriculum, and overall institutional effectiveness in order to provide input for planning and resource allocation in support of the institutional mission.
- Applies the most advanced emerging technologies to enrich the processes of learning, management and student services.
- Fosters an inclusive environment; an atmosphere of academic freedom; intellectual challenge; the necessary resources to enable students' development of high cultural and ethical values; intellectual curiosity; information literacy; critical thinking; communication skills in English and Spanish; team work; leadership and decision-making skills; scientific and quantitative reasoning; and technological competencies necessary for their successful participation in today's Global World.
- Implements innovative learning modalities in order to fulfill its educational mission, including classroom-based courses, as well as distance learning delivery systems to expand higher education options in Puerto Rico and abroad.
- Ensures a campus with adequate, attractive physical and ground facilities; and, a safe environment to guarantee an integral sense of belonging, and professional and personal wellness.
- Maintains leadership in the field of environmental affairs and resources preservation, and their sustainable development thus helping solve socioeconomic issues, and contributing to Puerto Rico's global competitiveness.

UMET'S CORE VALUES:

- **Excellence** as the maximum aspiration of all teaching, research, creative activities and service endeavors.
- **Freedom** of thought and expression as an indispensable basis in the search and diffusion of knowledge.
- **Respect** for the diversity and dignity of human beings.
- **Integrity** in all dealings as an educational, research and public service entity.
- **Equality** recognizing the value of education as an instrument to provide better opportunities and to develop the potential of human beings.
- **Innovation** to constantly guarantee the pertinence and quality of programs and services.
- **Social Responsibility** regarding the needs of the community, the country and the humanity of which we are part.

LICENSURES AND ACCREDITATIONS

LICENSURES

Puerto Rico Council of Education

P.O. Box 19900, San Juan, PR 00910-1900

Phone: (787) 724-7100

REGIONAL ACCREDITATION:

Middle States Commission on Higher Education

3624 Market Street, Philadelphia, PA 19104

Phone: (215) 662-5606

Commission for Independent Education

Florida Department of Education

2650 Apalachee Parkway Suit A

Tallahassee, Florida 32301

Phone: (850) 245-3200

International Association for Continuing Education and Training (IACET)

8405 Greensboro Drive

Suite 800

Mclean, VA 22102

Phone: (703) 506-3275

SPECIALIZED ACCREDITATIONS:

Accreditation Commission for Education in Nursing (ACEN)

3343 Peachtree Road NE

Suite 850

Atlanta Georgia 30326

Phone: (404) 975-5000

Accreditation Council for Business Schools and Programs (ACBSP)

11520 West 119th Street

Overland Park, Kansas 66213

Phone: (913) 339-9356

BOARD OF DIRECTORS AND ADMINISTRATION OF THE SISTEMA UNIVERSITARIO ANA G. MÉNDEZ

BOARD OF DIRECTORS

<i>Ramiro Millán</i>	<i>President of the Board</i>
<i>Felix Rodríguez</i>	<i>Vice-president of the Board</i>
<i>José F. Méndez González</i>	<i>President Emeritus of Ana G. Méndez University System</i>
<i>José F. Méndez Méndez, Jr.</i>	<i>President of Ana G. Méndez University System</i>
<i>Víctor Hernández</i>	
<i>Héctor A. Jiménez</i>	
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<i>Rafael A. Nadal</i>	
<i>Herminio Martínez</i>	
<i>Manuel Agosto</i>	
<i>Rene A Soto</i>	
<i>Wilfredo Cosme</i>	
<i>Rita DiMartino</i>	

ADMINISTRATION OF THE SISTEMA UNIVERSITARIO ANA G. MENDEZ

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<i>José F. Méndez Méndez</i>	<i>President</i>
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<i>Mayra Cruz</i>	<i>Vice President for Marketing and Student Affairs</i>
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<i>David Méndez Pagán</i>	<i>Vice President for International Affairs</i>
<i>John Navarro Ferreira</i>	<i>Director, Internal Audit</i>
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<i>Migdalia Torres Rivera</i>	<i>Chancellor Ana G. Méndez Virtual Campus</i>
<i>Carlos M. Padín</i>	<i>Chancellor Universidad Metropolitana</i>
<i>Dennis Alicea Rodríguez</i>	<i>Chancellor Universidad del Turabo</i>
<i>Mildred Huerta Solá</i>	<i>Chancellor Universidad del Este</i>
<i>Luis A. Burgos</i>	<i>Chancellor Florida Campus</i>

ADMINISTRATION AND STAFF OF UNIVERSIDAD METROPOLITANA

OFFICE OF THE CHANCELLOR

<i>Carlos M. Padín Bibiloni, PhD</i>	<i>Chancellor</i>
<i>Juan Otero Serrano, PhD</i>	<i>Vice Chancellor</i>
<i>Carmen Rosado León, MBA</i>	<i>Vice Chancellor of Student Affairs</i>
<i>Vacant</i>	<i>Vice Chancellor for Administrative Affairs</i>
<i>Carlos Fuentes, BA</i>	<i>Vice Chancellor of Information Resources</i>
<i>Francisco Caballero, Eng</i>	<i>Manager of Physical Facilities</i>
<i>Molly A. Hardigree, MA</i>	<i>Acting Vice Chancellor for External Resources</i>
<i>Belissa Aquino, BA</i>	<i>Assistant Vice Chancellor for Institutional Development and Alumni Affairs</i>
<i>Yvonne Guadalupe, MA</i>	<i>Director of Public Relations</i>
<i>Guillermo Vázquez, PhD</i>	<i>Director of the University Center of Bayamon</i>
<i>Irma del Pilar Cruz, PhD</i>	<i>Director of the University Center of Jayuya</i>
<i>Luis A. Ruiz, MA</i>	<i>Director of the University Center of Aguadilla</i>
<i>Lorna Martínez, MA</i>	<i>Executive Director School of Continuing Education</i>

OFFICE OF THE VICE CHANCELLOR

<i>Juan Otero Serrano, PhD</i>	<i>Vice Chancellor</i>
<i>Gregorio Villegas Cobián, PhD</i>	<i>Associate Vice Chancellor for Administrative Affairs</i>
<i>Alma Resto, MBA</i>	<i>Acting Associate Vice Chancellor for Licensing and Accreditation</i>
<i>Awilda Pérez, MBA</i>	<i>Associate Vice Chancellor for Student Retention and Development</i>
<i>Elizabeth Cancel, MBA</i>	<i>Associate Vice Chancellor Evening and Weekend Services</i>
<i>Carmen M. Luna, EdD</i>	<i>Assistant Vice Chancellor of Student and Institutional Assessment</i>
<i>Teresita Ibarra, PhD</i>	<i>Acting Dean of the School of Business</i>
<i>Teresita Ibarra, PhD</i>	<i>Associate Dean, School of Business</i>
<i>María C. Ortiz, PhD</i>	<i>Dean of the School of Environmental Affairs</i>
<i>Karen González, PhD</i>	<i>Dean of the School of Science and Technology</i>
<i>Nadia Fernández, PhD</i>	<i>Associate Dean, School of Science and Technology</i>
<i>Lourdes Maldonado, EdD</i>	<i>Dean of the School of Health Science</i>
<i>Mayra Figueroa, EdD</i>	<i>Associate Dean of the School of Health Science</i>
<i>Luis Mojica, EdD</i>	<i>Dean of the School of Education</i>
<i>Mariwilda Padilla, EdD</i>	<i>Associate Dean, Graduate Program of Education</i>

<i>Barbara Ponce, MEd</i>	<i>Associate Dean, Undergraduate Program of Education</i>
<i>Mariveliz Cabán, PhD</i>	<i>Acting Dean of the School of Social Sciences, Humanities and Communication</i>
<i>Roxanna Domenech, PhD</i>	<i>Associate Dean of the Department of Humanities</i>
<i>Mariveliz Cabán, PhD</i>	<i>Associate Dean of the Department of Social Sciences</i>
<i>Sugelenia Cotto, MBA</i>	<i>Acting Associate Dean, Department of Communications</i>
<i>Laura Aponte, MBA</i>	<i>Dean of School of Technical Studies</i>

SISTEMA UNIVERSITARIO ANA G. MÉNDEZ – SCHOOL OF PROFESSIONAL STUDIES (AHORA)

<i>Mildred Rivera Cordero, MBA</i>	<i>Dean School of Professional Studies</i>
<i>Melissa Guilliani, MPA</i>	<i>Associate Dean, School of Professional Studies</i>
<i>Alfredo Lebrón, PhD</i>	<i>Associate Dean in Academic Affairs</i>

CONTINUING EDUCATION

<i>Lorna Martínez, MA</i>	<i>Executive Director</i>
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General Information

Admission Requirements

General Admission

Candidates applying for admission to **(Institution)** must meet the following requirements:

- Graduated from secondary school licensed by the Puerto Rico Council on Education or its equivalent.
- Have taken the College Entrance Examination Board (CEEB) or the placement tests in the areas of Spanish, English and Mathematics provided by the university. This is not required for applicant's ages twenty-five (25) or older.

ELIGIBILITY INDEX

A grade point average of 2.00 for most degree programs is needed, but some specific associate or bachelor degree programs require other specific requirements. (Below is a list of some programs)

***Note: See the School section of this catalog for other programs and their admissions requirements.**

ADMISSIONS PROCEDURES

- Fill and submit the admission application and pay the non-refundable fee.
- Submit a copy of the College Entrance Examination Board (CEEB), SAT or ACT results (if **(Institution)** was not selected to receive results directly) or take the placement test in the areas of Spanish, English and Mathematics provided by the university.
- Health and vaccination certification for applicants younger than twenty-one (21) years of age.
- Submit **one** of the following as part of the evidence for program-specific requirements:
 - a. Students from the public schools system that provide student GPA via an electronic system recognized by the Department of Education of Puerto Rico, will not need to present physical evidence of the transcript. The electronic transcript sent by the school must show the academic GPA computed at the end of the first semester of the senior year of high school, to be evaluated as part of the admission process.
 - b. Students from public and private schools that do not provide the electronic service data transfer recognized by the Department of Education of Puerto Rico, must provide an transcript comprising their high school years up to the first semester of the senior year of high school, to be evaluated as part of the admission process.

- All candidates must submit **one** of the following documents as evidence of having completed high school or its equivalent:
 - Original Certification of graduation
 - Official document of an institution or agency recognized by the U.S. Department of Education that certifies the equivalency of a high school degree.
- Enclose the non-refundable application fee (\$15.00).
- Applicants for the Health Sciences, Hospitality Programs are also required to submit a Health Certificate.
- Representatives of the School may interview candidates for admission. Students holding degrees from other accredited higher learning institutions that wish to pursue studies must meet the admissions requirements set forth by the Institution.
- Incomplete applications or those not fulfilling the established requirements will be considered for conditional admission. The Institution may invalidate the student's admission and conditional registration.
- **Veterans and beneficiaries** should submit all admissions requirements before the first day of classes and **within the 45 days** after the beginning of classes.

READMITTED STUDENTS

An applicant for readmission is a student who has interrupted his/her studies for one semester (summer sessions will not be considered) and wishes to continue studying. The student must meet the academic requirements established in the Institution.

REQUIREMENTS FOR READMISSION

- The applicant must have a grade point average equivalent to the retention index.
- The applicant must have complied with the suspension period for academic index or for disciplinary reasons.
- The applicant may be required to attend an interview with representatives of the School or a guidance counselor.
- The applicant must comply with all requirements of the selected program.
- Compliance with all Universidad Metropolitana's by-laws, rules and regulations.

PROCEDURE FOR READMISSIONS

- Submit an application for readmission.
- Enclose a non-refundable \$15.00 readmission fee.

TRANSFER STUDENTS

A transfer student is an active or former student of an accredited, post-secondary institution.

REQUIREMENTS FOR TRANSFER

- Passing grades in at least twelve credits from an accredited post-secondary institution.
- Cumulative grade point average equivalent to the retention index.

- A letter of recommendation from the Dean of Student Affairs of the last institution where the applicant studied.
- Comply with the admission requirements for transfer as established by his/her program of choice.
- Compliance with all Universidad Metropolitana's by-laws, rules and regulations.

PROCEDURES FOR TRANSFER

- Submit an application for transfer.
- Enclose payment for a transfer fee of \$15.00. This is non-refundable.
- Submit an official transcription from the institution the student is transferring from.
- The applicant may be required to: Submit a copy of the catalog of the institution where the student attended, if the applicant studied outside of Puerto Rico.

Second Baccalaureate or Professional Certificate Students (New Specialty)

Students who have a degree from an accredited institution of higher education and would like to complete a second degree or Professional Certification.

Requirements for New Specialty

- Have a bachelor degree or higher conferred by an accredited institution of higher education.
- Comply with the required academic index of the School. (See undergraduate catalog).
- \$15.00 Admission Fee (non-refundable).
- Official transcript from the institution of higher education of origin certifying that a bachelor degree or higher was conferred.

Procedure for New Specialty

- Submit an application for New Specialty
- Enclose payment of a transfer fee of \$15.00. This is non-refundable.
- Submit an official transcription from the institution with certification of the degree obtained.

Student interested in obtaining prerequisite greater degree

Student who has a degree from an accredited institution and needs to pass prerequisites for admission to a higher degree.

Requirements for Student interested in obtaining prerequisite greater degree

- Have a bachelor degree or higher conferred by an accredited institution of higher education.
- Comply with the required academic index of the School. (See undergraduate catalog).
- \$15.00 Admission Fee (non-refundable).
- Official transcript from the institution of higher education of origin certifying that a bachelor degree or higher was conferred.

Procedure for Student interested in obtaining prerequisite greater degree

- Submit an application for New Specialty
- Enclose payment of a transfer fee of \$15.00. This is non-refundable.
- Submit an official transcription from the institution with certification of the degree obtained.

Student interested in teacher certification

Student who has a degree from an accredited institution and needs to pass education courses identified by the Department of Education.

Requirements for Student interested in teacher certification

- Have a bachelor degree or higher conferred by an accredited institution of higher education.
- Comply with the required academic index of the School. (See undergraduate catalog).
- \$15.00 Admission Fee (non-refundable).
- Official transcript from the institution of higher education of origin certifying that a bachelor degree or higher was conferred.

Procedure for Student interested in teacher certification

- Submit an application for New Specialty
- Enclose payment of a transfer fee of \$15.00. This is non-refundable.
- Submit an official transcription from the institution with certification of the degree obtained.

SPECIAL STUDENTS

Students who have a degree from an accredited institution of higher education and wish to take courses not leading to a degree or professional certification.

Requirements for Special Students

- Official Transcript with certification of the degree obtained
- Admission fee of \$15.00 payable to Universidad Metropolitana
- Compliance with all Universidad Metropolitana's by-laws, rules and regulations

Procedures for Special

- Submit an application for Special.
- Enclose payment of a transfer fee of \$15.00. This is non-refundable.
- Submit an official transcription from the institution with certification of the degree obtained.

TRANSITORY STUDENTS

Students who are enrolled in another university or college and wish to take courses not leading to a degree can apply as a transitory student. An official permit from their university or college is needed.

REQUIREMENTS FOR TRANSITORY STUDENT

- Fill out a Special Student application form.
- Enclose payment of an application fee of \$15.00. This fee is non-refundable.
- Applicants with a college degree must submit a copy of the degree or an official permit authorizing them to enroll.
- The applicant may be required to attend an interview with representatives of the School.

INTERNATIONAL STUDENTS

Foreign and International Students that apply as new students must submit the following documents:

- High School transcript or Equivalent.
- An official certificate of High School equivalence from the Department of Education of Puerto Rico.
- Submit College Entrance Examination Board (CEEB) scores, SAT or the test offered by the Placement Center of the Institution (CDU, for its Spanish acronym). This is not required for applicant's ages twenty-five (25) or older.
- Form I-134, stating the financial support, provided by the Admissions Office. (this only applies to non-residents).
- Student Visa (F1) approved the card that indicates the classification that he/she has the permissions of a Foreign or International Student to study.
- Admission fee of \$15.00 payable to Universidad Metropolitana.
- Current Certificate of Immunization (if under 21).

Foreign Students applying as transfer students must bring the following documents:

- Official transcript from each institution of higher education where s/he has studied or equivalent. In cases of foreign universities, these transcripts must be certified by the accrediting agency of the country of origin and presented to an approved equivalency agency. An official certification of the agency is required.
- A copy of the Catalog of the University last attended, if necessary.

- Form I-134, stating the financial support, provided by the Admissions Office (this only applies to non-residents).
- Evidence of Visa (F1), Card of permanent resident or evidence of card that indicates that the classification allows the Foreign or International Student to study.
- Admission fee of \$15.00 payable to Universidad Metropolitana.
- To Complete the SEVIS Form for Transfer.
- Current Certificate of Immunization (if under 21).

***Enrollment Cancellation Policy**

Enrollment will be cancelled for all admitted and registered, **regular semester, new admission** students who fail to submit their final official transcript or Certification of Graduation over a period of twenty (20) working days from the beginning of classes.

Enrollment will be cancelled for all registered, **part of term, new admission** students (regular evening division) who fail to submit their final official transcript or Certification of Graduation over a period of fifteen (15) working days from the beginning of classes.

Enrollment will be cancelled for all admitted and registered, **regular semester, transferred** students who fail to submit their official transcript over a period of twenty (20) working days from the beginning of classes.

Enrollment will be cancelled for all admitted and registered, **part of term, transfer s** students (regular evening division) who fail to submit their official transcript over a period of fifteen (15) working days from the beginning of classes.

RIGHTS RESERVED

The Universidad Metropolitana reserves the right to admit, readmit, or register any student for any class session, semester or part-of-term. It also reserves the right to suspend temporarily, partially, totally or permanently any student according to the by-laws of the Institution.

Rules and Regulations for Admission and Registration

RULES AND REGULATIONS FOR ADMISSION AND REGISTRATION

The Institution reserves the right to enforce the observance of those rules, norms and regulations that safeguard the ideals and standards for which it stands, and may ask a student to withdraw if he/she does not comply with these rules or refuses to cooperate with a working member of the Institution. The decision reached by the administration in such cases is final.

All students should examine regularly the bulletin boards in the different buildings of the Institution in order to be informed of official announcements.

ADMISSIONS POLICY

The two main objectives of the Universidad Metropolitana in the admissions, readmissions, and transfer policies are:

1. To provide admissions to as many qualified applicants as the physical facilities and programs allow.
2. To provide the educational opportunities that will best contribute to the success of those students capable of doing college work.

ACADEMIC INFORMATION

Registration and Other Related Procedures

The Office of the Vice Chancellor of Student Affairs determines the registration procedure, and no program of study is valid without the approval of this administrative officer. The Registrar's Office in coordination with the Office of the Associate Vice Chancellor of Enrollment Management is responsible for the registration process.

The Registrar's Office is responsible for the maintenance of all official academic student records and for issuing transcripts, certifications, registration and graduation certificates, as well as submitting or mailing the grade reports to students.

Candidates for admission, readmission, or transfer and special students may not register until each has received an official and final statement of acceptance from the Office of Admissions.

The Institution does not necessarily guarantee the class program of study chosen by the student during the early registration period if the course does not attain the minimum of students per section. The Institution does not guarantee the program chosen if the student does not observe the scheduled date and hour for registration. After this period, the Institution may use such offerings for other students, especially in the period scheduled for changes in class programs.

Changes in class programs will only be allowed with the written recommendation of the student coordinators, deans, or other academic representatives. The academic representatives approve the changes in class programs based on the existing requirements. The Registrar's Office will determine if there is space in the requested sections.

Each student is responsible for having met the requisites prior to registration in a particular continuation course.

LATE REGISTRATION

Late registration will be held after official classes begin, in the period determined for late registration. Students who did not attend early registration or who failed to attend registration on the date assigned may register during the late registration period, provided there is space in the sections they select. No student will be able to register after the period determined for late registration.

After the period allowed for registration, all courses will become a permanent part of the student's record.

REALLOCATION OF STUDENTS

At the end of the registration period, the Registrar may reallocate students where elimination and rescheduling of courses has taken place. Such changes should take place on the dates designated for this purpose in the Academic Calendar.

OFFICIAL ADMISSION TO CLASSES

At the beginning of the semester or part-of-term each student should present his official registered class schedule to each of his professors.

Students should attend classes and/or sections where they are enrolled and professors should admit in their classes only those students that have been officially registered in the appropriate courses and sections. The Registrar's Office is not responsible for recording grades of students who attended classes and/or sections in which they were not officially registered.

CORRECTIONS OR CHANGES IN NAMES AND ADDRESSES

Students with address changes should notify the Registrar's Office and through the portal MiUmet. This office will provide them with the appropriate forms to fill out.

The same procedure should be followed for corrections to be made for the change of name. For changes of name, the student must submit a petition legally signed and with a certified affidavit.

CLASSIFICATIONS OF STUDENTS

Students are classified as follows:

A. By credit hours enrolled

1. **Full-time Students**-those who have fulfilled the admission requirements of the Institution and have a load of twelve or more credit hours per semester in a program leading to a degree.
2. **Quarter Students**-those who have fulfilled the admission requirements of the Institution and have a load of eleven to nine credit hours per semester in a program leading to a degree.
3. **Half-time Students**- those who have fulfilled the admission requirements of the institution and have a load of eight to six credit hours per semester in a program leading to a degree.
4. **Less than Half-time Students** – those who have fulfilled the admission requirements of the Institution and have a load of five or less credit hours per semester in a program leading to a degree.

Undergraduate Academic Load

Level	Full Time	Three Quarters Time	Half Time	Less than Half Time
Associate	12 or more credits	11 to 9 credits	8 to 6 credits	5 or Less
Bachelor	12 or more credits	11 to 9 credits	8 to 6 credits	5 or Less
Certificate	12 or more credits	11 to 9 credits	8 to 6 credits	5 or Less

B. By credit hours leading to an undergraduate degree

1. **First Year Students**-those with a secondary school diploma or the equivalent who are registered at the Institution in courses leading to a degree. Students who have completed a minimum of 30 credits.
2. **Second Year Students**-those who have completed a minimum of 31 credit hours of work at the Institution.
3. **Third Year Students**-those who have completed a minimum of 61 credits at the Institution.
4. **Fourth Year Students** - those who have completed a minimum of 91 at the Institution.
5. **Fifth Year Students** - those who have completed a minimum of 121 credit hours at the Institution.

C. **By grade point average (See Student Academic Status section)**

1. Students on No Progress
2. Students on Academic Suspension
3. Honor Students

D. **By type of admission**

- **New Admission Students**

Students who come from high school or who have obtained their equivalency examination and who have not undertaken university studies.

- **Readmission Students**

Students who interrupted their studies for a semester (academic term) or more, who wish to continue their studies, and who fall under the Standards of Satisfactory Academic Progress.

Students who have been suspended academically or by disciplinary sanction who wish to be readmitted, must have complied with the period of suspension to be considered for readmission.

- **Transfer Students**

Students who come from an accredited institution of higher education and have 12 credits or more approved.

- **New Specialization Students**

Students who have a degree from an accredited institution of higher education and would like to complete a second degree or Professional Certification.

- **Student interested in obtaining prerequisite greater degree**

Student who has a degree from an accredited institution and needs to pass prerequisites for admission to a higher degree.

- **Student interested in teacher certification**

Student who has a degree from an accredited institution and needs to pass education courses identified by the Department of Education.

- **Special Students**

Students who have a degree from an accredited institution of higher education and wish to take courses not leading to a degree or professional certification.

- **Transitory Students**

Students enrolled at another institution of higher education who are authorized to take courses at Universidad Metropolitana by their institution of origin.

RE-CLASSIFICATION OF STUDENTS

- Students who wish to change majors may re-classify from one major to another. This also applies to students who wish to change from the program level, for example: from associate to a bachelor degree program. These types of re-classifications are authorized as long as the student complies with the admissions requirement of the new major or new program.
- The minimum requirements to request reclassification are:
 - Associate and Bachelor's Degrees – a minimum of 24 credits approved and a grade average of a 2.00 or more. The School of Education, for the programs of preparation of teachers requires a minimum of a 3.00 average graduation, each case will be evaluated by the School. The School of Health Sciences (Nursing Program) require a minimum of a 2.50 average.
- To request a reclassification, the student should comply with the Progress Norm of the Satisfactory Academic Norm.
 - When the student reclassifies, the credits approved, which are part of the sequential curriculum of the new major, he/she will be considered under The Satisfactory Academic Norm.

SPECIAL CONDITIONS AND REGULATIONS

- Students who have registered in the maximum permitted academic load and need three more credits to complete the graduation requirements in the same semester, will be allowed to take three additional credits with the written authorization of the appropriate Dean or Associate Dean of the School or Program Director/Coordinator.
- No student will have an academic load greater than 21 credits. The maximum academic load in the summer will be twelve to fifteen (12-15) credits. An academic load of (18) credits will be permitted to the students who are candidates for graduation in the summer and have the written authorization of the appropriate Dean or Associate Dean of the School or Program Director/Coordinator.
- All students will be given a reasonable time in which to graduate or complete their declared major.
- The Institution reserves the right to suspend a student temporarily or permanently.

CHANGES IN PROGRAMS OR SCHEDULES

- A student may change their program of study in accordance with the following rules:
 - The student must have a written authorization of the Dean or Associate Dean of the School in order to be processed by the Registrar's Office.
 - The Institution will make every reasonable effort to offer courses as announced, but it reserves the right to change the time schedule or to withdraw a course or courses. The School may identify other similar courses to substitute the eliminated course.

WITHDRAWALS

- Partial or total withdrawals are allowed during a regular semester, part-of-term, or summer session as specified in the academic calendar.
- The deadline for voluntary total withdrawals will be included in the semester or part-of-term academic calendar of classes in the semester or summer session, before the final examinations begin.
- The institution reserves the right to require a student to withdrawal from any course or from the Institution, for any of the following reasons:
 - a. Possibility of hazard to the health of the student or that of other students, if attendance was continued.
 - b. Refusal to obey regulations or serious misconduct on the part of the student.

Types of Withdrawals:

1. **Partial Withdrawal** - is the official separation of one or various courses in the student's official class program. The student's academic record will reflect a W as the grade obtained.
2. **Total Withdrawal** - is the official separation of all the courses of the student's official program. The student's academic record will reflect a W as the grade obtained.
3. **Administrative Withdrawal** - The institution reserves the right to process a student as a partial or total withdrawal; temporarily, by means of exception and/or through a resolution from the Discipline Council or another Institutional Council. The student's record will reflect as a W grade.
4. **Non Official Withdrawal**
 - a. **Non-Official Withdrawal for Online Courses** - The institution has a Process Census Taking and Non Official Withdrawal for students enrolled in online courses. The policy applies to all students enrolled in complete online courses.
 - b. **Non-Official Withdrawal for Classroom** - Applies to all students who have abandoned a course without filing an official withdrawal and obtains a WF grade in all of their courses.

CENSUS

The Census Taking is the process whereby the faculty certifies to the Registrar's Office the students who never attended the enrolled courses. The faculty identifies students who never attended courses at the start of classes in the Registry of Census Taking. The Office of the Registrar processes a withdrawal for non-attendance in the courses identified by the professor (WN).

Regular attendance and participation in class discussion and activities is expected. It will enhance and enrich the experience for the entire class. If the student expects to miss class for any reason it is the student's responsibility to notify the professor by email or telephone prior to class. Professors are not required to allow students to make up work. Students are responsible

for all material covered during the course, regardless of whether they are present in class. Thus, attendance is strongly recommended to better facilitate student achievement of academic goals.

LEAVE OF ABSENCE (LOA)

Leave of absence allows a student who is officially enrolled, with the exception of the requirement of the register or the unceasing attendance at the university. This *Leave of Absence* is granted for:

- Medical justifications.
- The student that has been activated for military service and/or The National Guard outside the territory of Puerto Rico or due to a national emergency within Puerto Rico.

The University requires the student to formally request, in a written form *A Leave of Absence* and provide the information that justifies his/her request. If the request is based on medical reasons, the student should document the request with official evidence from his/her doctor. If the request is for military reasons, the student should bring a copy of his/her military orders, which will include the time and place that he/she will be required to meet and the place assigned. The students are responsible for the knowledge and orientation on the implications of a *Leave of Absence* in their financial aid and their progress towards the degree. The students under a *Leave of Absence* should have Academic Progress.

STUDENT EVALUATION PROCEDURES

- Professors are required to provide a minimum of three partial grades and one final evaluation activity with the value of a partial grade, during every given semester or part-of-term. These partial grades may consist of tests or any other kind of evaluation activity chosen by the professor.
- Professors may grant an opportunity to make up a test or quiz, which had been previously announced, to any student with a valid excuse.
- Students must complete all work required for a partial grade before the end of the semester; otherwise, he will be given a zero (**0**) for that particular assignment.
- It is the student's responsibility to clarify any questions about partial grades before the date scheduled for the final evaluation activity of the course.
- Students should complete the Institutional Assessment instruments administered in each course at the end of each semester.

GRADING SYSTEM

The unit of measure for determining the course value is the credit, which is equivalent to three-hour of classroom work per week during a given semester or part-of-term or two and a half hours of class per week during a summer session. The accelerated adult program has five or eight-week class sessions per course that meet four-hours per week during a part-of-term.

The credit equivalent for laboratory work has been determined according to the rules of each School.

Academic standing in completed courses is indicated by the following letter grades:

Letter grade system and grade points per credit:

- A 90 – 100 - excellent
- B 80 – 89 - good
- C 70 – 79 - satisfactory
- D 60 – 69 - deficient
- F 0 – 59 - failure (no grade credit)

- A- 4 grade points per credit hour
- B- 3 grade points per credit hour
- C- 2 grade points per credit hour
- D- 1 grade points per credit hour
- F - 0 grade points per credit hour

In special cases the following grading system will be used:

W	Withdrawal
WN	Withdrawal No Show (no grade points)
WF	Student leaving the course at any time of the semester or academic term, without filing official withdrawal, and has no academic criteria to award a grade or qualification.
IB, IC, ID, IF	Incomplete work. Student was absent from final examination or failed to complete and turn in final work assignment; but, must have complied with all the partial requirements of the course.
P	Pass
IP	Course in progress
NP	Non passed
I or E	Repeated Course, reflected in the transcript as included or excluded for grade point average
T	Transfer course
AU	Audit Course
W	Indicates a withdrawal from a course with the official approval of the Office of the Registrar.
WN	Indicates no attendance to a course within the first few days after classes begin (no grade points). Reported to the Office of the Registrar in the official <i>Student Assistance Register</i> by the professor.
WF	Indicates a student's failure to continue attendance to his/she classes and does not officially withdraw the course.

INCOMPLETES

A student will receive a provisional grade of Incomplete (IB, IC, ID, IF) in the following instances:

- If his absence from a final examination can be justified
- If the student has complied with all partial requirements of the course during the semester or part-of-term.

In order to remove an Incomplete the student should take the corresponding final examination or work requirement within the first 20 days of the subsequent semester or summer session.

The professor has the responsibility of removing all Incompletes. If the professor is not available, the Dean or Associate Dean of the School or the Director or Coordinator of Academic Affairs of the Off-Campus University Center, will make the corresponding changes in the official course grade register at the Registrar's Office.

In the case of student that is not complying with these established rules, the professor will assign a "0" in the corresponding work missed by the student, and will report the final grade to the Registrar after calculating the corresponding grades.

GRADE CLAIMS

The student has a month before the next semester ends after obtaining the grade in which to submit a claim of the grade.

GRADE POINT AVERAGE

The grade point average is obtained by dividing the total number of honor points by the total number of credit hours in which the student has received a final grade, even those where an F or WF is final. The credits taken at UMET will be the only ones used to calculate the student's grade point average.

GRADE REPORTS

Once assigned by the professor, the grades are final, unchangeable within the context of the institution's academic discretion, and certified by the Registrar's Office.

Reports of the grades will be available to each student from the Registrar's Office at the end of each part of term or sessions through MiUmet, students on line services.

STUDENT'S RECORDS

The Office of the Registrar has custody of all students' academic records. These records are confidential.

TRANSCRIPTS

Official transcripts, which bear the seal of the Institution, will not be given to students or alumni, but sent directly to institutions specified by the students in their official requests to the Registrar's Office.

In those cases, where a student is in debt with the Institution, the Registrar will not certify the courses approved until the student has paid his debt.

Any claim concerning a transcript request should be presented at the Registrar's Office no later than 90 days after making the request.

REPETITION OF COURSES

The Repetition of Courses Policy establishes:

- The amount of times that the students may repeat courses, for the purpose of the use of Title IV funds.
- The qualifications that the courses are considered approved for purposes of the use of Title IV funds.

The student is responsible of the knowledge and compliance of the Repeating Course Policy.

- Courses with a final F grade - all the programs, the student may repeat these using funds from Title IV until they comply with a higher grade and it does not exceed 150% of their study program. For students in the programs of certificates, associates and bachelor's degrees may repeat them during their Pell Grant eligibility, which is 12 semesters or the equivalent of 600%.
- The repeated failed courses with F grade and obtain a higher grade (i.e. minimum grade of D or higher), may repeat them once more using Title IV funds. This will be with the purpose of improving the grade point average.
- Courses with withdrawal grading (W) – all the programs, the student may repeat them with Title IV funds until it complies with an approved grade (i.e. minimum grade of D or higher) and does not exceed 150% of their program. For students in the programs of certificates, associates and bachelor's degrees may repeat them during their Pell Grant eligibility, which is 12 semesters or the equivalent of 600%.
- Once the course is approved with minimum D grade or higher than this grade, they can repeat it once again to improve their academic grade points.
- For the effect of the financing of funded courses by Title IV with a D grade or higher, these are considered approved.
- Every attempt to repeat is considered by the Satisfactory Academic Progress (SAP) as attempted credit and will affect the period of eligibility for the Pell grant for the students in programs of associates, bachelor's and certificates and Student Loans for all the programs.

- Students who repeat courses will be accounted for the highest grade obtained for the calculation of the grade point average. If the grades obtained are the same as the previous ones, they will be accounted for the GPA and graduation only once. All the enrolled courses in the institution will be included in the student's transcript, those approved and non-approved.

Academic Year

The academic year consists:

- 1 semester August to December = 15 to 16 (Fall)
- 1 semester January to May =15 a 16 week (Spring)
- **June and July are optional for student (Summer)**

SATISFACTORY ACADEMIC PROGRESS (SAP) POLICY

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

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

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

Maintaining Satisfactory Academic Progress

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

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

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

Qualitative component – the Institution establishes specific minimum GPA requirements by program level (i.e., certificate, associate, bachelor, master and doctorate). For most programs, the minimum GPA increases as credits attempted increase. Students enrolled in a program of more than two academic years must have a GPA of at least a “C” or its equivalent, or have academic standing consistent with the Institution’s requirements for graduation at the end of the student’s second academic year. Regardless of the student’s enrollment status, (i.e., full -time, half- time, etc.), federal regulations consider that a student is at the end of his/her second academic year after two academic years of attendance (i.e., four semesters). Refer to Appendix A, Satisfactory Academic Progress Tables, for the qualitative components per program level.

Quantitative component –

- The Institution uses a graduated completion percentage by program level. The student must earn the minimum percentage of attempted credits depending on the program level and academic year in which the student is enrolled.
- All credits attempted and earned, including transfer credits that count towards the program of study of the student, are considered in the calculation.
- The student must complete the program within 150% of the length of the program of study to be eligible for Title IV funds. For example, students in a bachelor’s degree program must complete 120 credits and may attempt up to 180 credits (120 credits x 150% = 180 credits).

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

Changes in Status

If a student wants to enroll in a different academic program, the student must request approval from the Dean of the School. Only attempted and earned credits from the student’s current program of enrollment are included in the quantitative measure and only the grades for courses from the student’s current program of enrollment are included in the qualitative measure. However, students are encouraged to carefully consider program changes because federal regulations limit total lifetime financial aid eligibility.

Students who discontinue their studies and subsequently apply for readmission will be readmitted under the current SAP policy and will have the same SAP status that resulted as of the end of the last term attended. Students applying for readmission will be referred by the Office of Admissions to the School for evaluation. If the student does not meet SAP, the University will determine if he/she may be readmitted, provided an appeal has been approved.

Students requesting admission into a new academic program after having completed his/her prior program of study will begin the new program with a new SAP history. If a student

transfers in credits from the completed program of study, only those transfer credits that apply to the student's current program of enrollment will be considered when measuring SAP.

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

- **Course Repetitions** - Federal regulations limit repetition of courses that can be paid with Title IV financial aid funds. Generally, failed courses may be repeated until passed and courses that you have passed can be repeated only once. Please check with the Financial Aid Office if you are not sure whether a course can be repeated with financial aid. If a student repeats a course, only the highest grade earned will be included in the student's cumulative GPA. However, each attempt at the course will count as credits attempted.
- **Withdrawals** - If a student withdraws from a course, the credits for the course count toward the determination of credit hours attempted but will not be considered in the cumulative GPA.
- **Incomplete Courses** - If a student has an incomplete in a course, the credits for the course count towards the determination of credit hours attempted. The course will not be considered in the cumulative GPA until a grade is assigned.
- **Transfer Credits** - If a student transfers in credits from another institution, the accepted credits for the courses count toward the determination of credit hours attempted and earned, but will not be considered in the cumulative GPA. Only those transfer credits that apply to the student's program of enrollment at the Institution will count as credits attempted and earned. Refer to the Institution's catalog for requirements on accepted transfer credits from another institution.

REMEDIAL AND DEVELOPMENTAL COURSES

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

Financial Aid Warning and Failure to Meet Satisfactory Academic Progress

Students enrolled in technical, post-baccalaureate and graduate certificates programs, for which SAP is evaluated at the end of each semester, will be placed on financial aid warning status for the next semester attended as a consequence of not making satisfactory progress. The

Institution uses this status without appeal or any other action by the student. The Registrar's Office will notify the student in writing, through e-mail, of the financial aid warning status.

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

Scholarship and Grant Recipients

Other scholarship and grant programs may not allow for a financial aid warning semester. In these cases, failure to meet SAP in any given term may result in the termination of scholarship or grant funds. Please refer to your scholarship or grant information materials or contact the Financial Aid Office at 787- 766-1717 extension 6587.

Financial Aid Ineligibility and Appeal Procedures

Students enrolled in degree programs, for which SAP is measured at the end of every two semesters, will be informed in writing, through e-mail, of his/her loss of financial aid eligibility due to the failure to meet SAP and will be advised of the process for re-establishing financial aid eligibility. Students who have lost eligibility for financial aid based on a failure to meet SAP standards may appeal their loss of eligibility if they have suffered extenuating circumstances, such as the following:

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

Students who wish to make an appeal must be current on all financial obligations. Students may not use financial aid to make retroactive tuition and fee(s) payments.

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

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

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

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

Financial Aid Reinstatement

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

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

Any student who loses financial aid eligibility due to failure to meet SAP and attends school at his/her own cost will regain financial aid eligibility in the academic semester following the semester in which the student meets the minimum SAP standards.

Appendix A

Satisfactory Academic Progress Tables

Associate's Degree Programs		
Credits Attempted	% of Credits Earned	GPA
1 – 28	57%	1.70
29 – 56	62%	1.85
57 +	67%	2.00

Bachelor's Degree Programs		
Credits Attempted	% of Credits Earned	GPA
1 – 30	55%	1.70
31 – 60	60%	1.85
61 – 90	64%	2.00
91 +	67%	2.00

Teacher Preparation Bachelor's Degree Program		
Crédits Attempted	% of Crédits Earned	GPA
1 – 30	55%	2.70
31 – 60	60%	2.85
61 – 90	64%	3.00
91 +	67%	3.00

Graduation Requirements

The student usually graduates from the Universidad Metropolitana under the program requirements prevailing at the time of his admission to the Institution; however, the Institution reserves the right to make revisions in the different programs and in the requirements for the degree. Students who do not complete their studies, during the time required by their respective programs (program sequence), as well as those who apply for readmission after a period of absence from the Institution are governed by the rules that apply or are in effect when the student completes his evaluation for graduation. Nevertheless, the student should visit his academic advisor, academic guidance counselor, the School or Off-campus site Coordinator of Student Services for a progress evaluation of his academic program yearly.

Graduation

The requirements for the evaluation of degrees are:

1. Having requested graduation and/or be a possible candidate. The student may request graduation in summer, December or May.
2. Having passed all the academic requirements of the School; according to those established for the major of which the student aims to obtain the academic degree.
3. Having completed the number of credit-hours and required courses by the school to which the student belongs to his/her study program.
4. They must have satisfactorily completed the prescribed number of credits with a grade point average of 2.00 (C) or higher or as required in their program of studies. In the case of the students from the School of Education, the minimum grade average for graduation is 3.00 and they should approve the student teacher practice with a grade of no less than B.

5. To obtain a degree in the UMET, the transfer students should comply with the residence credits. These are:
 - Associate and Bachelor's Degrees – has approved a minimum of 30 credits at UMET, of which 12 will be his/her major.
6. Honors
 - The honors for the Associate degree programs and Bachelors are:

3.50 - 3.70 honor	(<i>CUM LAUDE</i>)
3.71 - 3.94 high honor	(<i>MAGNA CUM LAUDE</i>)
3.95 - 4.00 maximum honor	(<i>SUMMA CUM LAUDE</i>)
7. To receive honors, the transfer students, should comply with the Residential Norm (courses taken in UMET corresponding to the degree):

Associate	minimum of 45 credits
Bachelor's	minimum of 60 credits
8. The candidate for graduation must have satisfied their financial commitments with the institution. Also having completed all the documentation required by the Admissions Office in their academic record.
9. The candidates will be ruled by the current graduation requirements at the time applying for graduation.

Graduation Ceremonies are conducted once a year. The Registrar's Office issues a certificate of a degree to students who complete the requirements of their academic program. The Office of the Registrar issues a certificate of degree to students who complete the requirements of their academic program. Once the student is notified, he/she must pick up his/her diploma at the Registrar's Office, which keeps it for the term of one year. After this period of time the institution is not responsible for the document. The graduation fee is non-refundable.

Degree Granting

The institution will grant academic degrees to students who have completed the requirements of their academic program in accordance with the level claimed by these and have not filed an application for graduation.

Deceased Students

The relatives of the student or graduate who died must submit evidence of the death (death certificate) at the Registrar's Office.

Transfer Courses

The process of validation of courses apply to students in undergraduate programs of Associate degrees and Bachelor's degrees who are admitted by transfer or new students with credits that can be validated. The means of validation are:

- Traditional- students who come from external post-secondary institutions

- Non-traditional- military students, Advanced Level (*College Board*), Challenge Exams and Portfolios

An official transcript, descriptions of courses or the catalogue of the institutions of origin, will be required if necessary. The transcripts should contain all of the approved courses. The same must be licensed and/or accredited by the Council of Education of Puerto Rico as a post-secondary college-level institution and accredited by an agency by the United States Department of Education. If the student comes from an educational institution from a foreign country, it should be recognized by the pertinent educational authorities of that country and certified by evaluating agencies that accredit in the United States.

Undergraduate programs validations of all courses will be done with equivalence in the Universidad Metropolitana, with equal content and value in credits in which the student **has** obtained a minimum of a C grade. These should be part of the sequential curriculum of their program of study.

Remedial courses will not be validated, professional experience, Continuing Education, Technical Certificate courses, or tests taken in other universities except for advanced level exams offered by the *College Board*.

College credits are recognized and validated from the learning acquired by the military (active, retired voluntarily or disability), as defined by federal regulations. These courses must be certified by official transcript of credits issued by the Office of Educational Services of the Armed Forces or National Guard of Puerto Rico. Equivalencies are subject to evaluation of the Deans of the Schools.

Advanced Level exams (College Level Examination Program) are tests that are offered through the *College Board*. These tests consist of a system of tests validated on any of the subjects that are usually required in the first year. Among the subjects offered are:

- Spanish
- English
- Mathematics (level I, II)

The student must obtain three (3) points or more than one scale of five (5) points on each subject. Six (6) college credits per test will be awarded equivalent to the corresponding course. The grade of these courses will be reflected with (T) in the student's academic record.

The challenge is offered to provide students an alternative to demonstrate their mastery of the course content without the need to attend a classroom.

It is an institutional requirement that the transferred students comply with the Residence Norm for obtaining the degree:

- Associate and Bachelor's degrees: must meet a minimum of thirty (30) credits at UMET, of which twelve (12) shall be their major.

The transfer students from another college to UMET should comply with the following standard to be eligible to receive an honor:

- Associate Degree students must have passed a minimum of 45 credits of the program at UMET 3.50 or more academic GPA.
- Bachelor's degree students must have passed a minimum of 60 credits of the program at UMET 3.50 or more academic GPA.
- The students have forty-five (45) days, from the date they were sent, to claim the validation of courses in the Office of the Registrar. After this time limit the transfer shall be considered final and alterations to it will be not be accepted. It is the student's responsibility to claim their validation and follow-up on their documents on time in the Office of the Registrar, if it has not been received during their first semester of studies.

The courses of an institution that the student has not notified in his/her application for admission will not be validated.

STUDENT RIGHT-TO-KNOW AND CAMPUS SECURITY ACT

The common intention of the three major parts of this 1990 Act is to enhance the choice of the potential consumer, the post-secondary student, by reporting statistics about the "performance" of higher education institutions.

- Section 103 covers disclosures about the graduation or completion rate and other postsecondary outcomes of all students.
- Section 104 covers disclosures about the comparative academic "success" of students who receive financial assistance contingent upon participation in intercollegiate sports and Section 105 concerns institutional revenues and expenditures for intercollegiate athletic activities.
- Sections 203 and 204 concern disclosures, reports, and publications about campus security policies and crime statistics.

Compliance with all of the Act's disclosure provisions becomes an additional criterion for institutional eligibility to participate in federal student aid programs.

FAMILY RIGHTS AND PRIVACY ACT INFORMATION STATEMENT

Law 186 prohibits the use of SSN as identification routine in public and private educational institutions, (September 1, 2006).

The law prohibits the use of social security as a routine identification number in public and private from the elementary level up to the postgraduate educational institutions and it establishes the rules on the use of this data in educational institutions.

Therefore, the social security number will not be required of the student to take exams, presentation of projects, and any other action that is not related to procedures in which there is a legitimate need, such as; registration process, request for loans or financial assistance, transcriptions among others.

Any claim or complaint about improper use of social security number must be done in written form to the Registrar's Office. The Registrar or his representative will attend to the claim.

FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT, 1974, FERPA.

According to the *Family Educational Rights and Privacy Act, 1974*, FERPA; the student has certain rights regarding his/her record. The institution ensures control and security of the records and the disclosure of the information in accordance with the FERPA Act. The law limits the disclosure of the information, to who can have access to the information:

- 1- Institutional officials with a legitimate educational interest will have access to it.
- 2- The parents of a dependent student as defined in the Income Tax Returns.
- 3- A court order requiring the institution to show academic record.
- 4- The student may have access to his/her information.
- 5- The accrediting agencies, organizations conducting studies for educational institutions, in financial aids process, in audits or evaluations related to compliance with educational programs, authorization through the information directory, as a result of a disciplinary view of an alleged victim of a crime of violence.

Amendment 32 CFR 216 Solomon to the Family Educational Rights Privacy Act establishes that federal funds not be provided to institutions having as a policy to prevent the Secretary of the Defense of the United States to obtain information, for recruitment purposes, from the directory of students enrolled. This information according to the Solomon Amendment can be provided to recruiters, when the student has authorized to provide information in accordance with the category that the student has marked in the information directory. The institution is limited only to provide the information in accordance with the categories of the information directory.

INFORMATION DIRECTORY

The student may authorize the institution to provide information through the information directory, which establishes the information to offer. The directory includes: name, address, phone, date and place of birth, program of studies, participation in sports, weight and height of the athletes, degrees and honors received and related information.

The institution may provide information contained in the record of the student without their consent under the conditions provided by FERPA.

The student selects the information through the directory and selects a category of the information authorization that empowers the institution to disclose, it is divided into three categories:

- a. Name, student number, address, telephone number, date and place of birth, major, enrolled credits, period of studies, participation in official and sports activities, weight and height of athletes, degree and awards received and schools or universities attended.
- b. Name, student number, concentration, credits enrolled, period of studies, participation in official activities and sports, weight and height of athletes, degree and all awards received and schools or universities attended.
- c. I do not authorize the institution to provide information on the categories of the information directory.

STUDENT'S RIGHTS UNDER THE FERPA LAW

The law gives certain rights to the students who are 18 years or older or who attend an institution of higher education. These rights include:

- The right to inspect and review the information that is kept in his/her academic record. The right to examine the record within 45 days from the day the Universidad Metropolitana receives the request in writing. The application must be requested at the Office of the Registrar, it must specify what the student wishes to examine in his/her record.
- The right to amend or correct information. Such amendment or correction will be requested in writing and shall specify the aspects the student understands should be changed including the reasons. If such amendments or corrections cannot be done, the student will be notified in writing with a right to a hearing.
- The right to consent in writing before the institution reports personally identifiable information from their record. This right is limited to the information that FERPA authorizes to offer without the consent or authorization of the student. In addition, it allows that information without the consent of the student can be offered to the

University Officials who have a legitimate educational interest in order to comply with their professional responsibility. The institution may offer student record information, without his/her consent to another educational institution in which the student wishes to enroll.

- The right to claim or file a complaint with the U.S. Department of Education non-compliance of the Universidad Metropolitana of this law. The claim should be directed to: Family Policy Compliance Office U.S. Department of Education 400 Maryland Avenue, SW Washington, D.C. 20202.

ADMINISTRATION OF THE FERPA LAW

The Office of the Registrar is responsible for the administration and application of the FERPA Law. The Registrar is responsible for ensuring that compliance as stipulated in the law. The Registrar, the Academic Vice Chancellor and the Vice Chancellor for Student Affairs will attend any claim in this regard.

Vice Chancellorship of Student Affairs

OFFICE OF THE VICE CHANCELLOR OF STUDENT AFFAIRS

Student Affairs

The Vice Chancellery for Students Affairs offers a variety of services that promote an integral student development. The student services reflect the University commitment to its mission, to provide integrated and student centered services towards the achievement of their academic goals. The student services are offered by responsible and committed professionals.

The following offices and programs provide students services:

- CISE - offer students a one stop location at the main campus and additional locations for Admissions, Financial Aid, Registrar and Bursar's office services.
- Health Services
- Quality of Life and Student Wellness
- Scholarship and Internships
- Sports Program
- Complementary Educational Services Program
- Admissions, Marketing & Recruitment

PROFESSIONAL GUIDANCE AND COUNSELING PROGRAMS

The dramatic changes of the dynamic society are also reflected in our students' population. The needs of the younger students, the adult student who is coming back to the university and the special populations, are continuously assessed in order to offer them relevant services.

The Guidance and Counseling Program focuses its services and projects on the new paradigms in Counseling: integral human development, prevention and pro-active educational strategies to develop special skills for life and career.

The main objectives of the program are geared to enhance the student self-esteem, help them achieve self-knowledge, help them learn and develop skills for decision making and conflict resolution, to develop leaderships skills and to assume responsibility with themselves and their community.

Specials projects are established according to students' assessment and in coordination with the university's community resources to promote healthy lifestyles as well as to prevent academic failures or withdrawals, and personal risky behaviors.

The program emphasizes outreach and a pro-active stance in the delivery services. The services include: individual and group personal counseling, career counseling and crisis intervention, enhancement of leadership skills, follow up, referrals and others. These services are provided by licensed Professional Counselors. Besides, psychological services are provided to promote psychological wellbeing of students.

Reasonable Accommodations

In compliance with state and federal laws protecting the rights of persons with disabilities reasonable accommodation is provide. Students should apply for these services voluntarily.

Employment Center

Provide guidance and related activities to be successful in seeking and obtaining employment. Participants receive market information and are referred for job opportunities, facilitating the transition to work.

STUDENT SUPPORT SERVICES PROGRAM

The Student Support Services Program at Universidad Metropolitana provide an integrated gamma of academic and counseling services to over 400 UMET students a year that meet the eligibility criteria established by federal law for participation in this program.

The United States Department of Education Grant Award permits the Program to offer personal, academic and career counseling; and academic support such as tutoring in all subject areas, special tutoring for disabled students and socio-cultural and career oriented off-campus activities, concerts, and conferences.

To qualify as a program participant, a student must be an American citizen or resident alien, have obtained final admission to the school, be the first generation of his family to graduate with a baccalaureate degree, be of low income and/or have a documented disability. Certain documentation may be required of those students interested in becoming program participants.

HEALTH SERVICES

First aid and medical services are offered at the Health Services Office of the Institution. In the event of an emergency or illness, the student should report to the Health Services Office to receive first-aid.

The Health Services Office offers preventive medicine and medical materials, free of charge, for all students. The nurse and or doctor provide information on a variety of health related topics, which include medical clinic sessions as well as personal health care education.

Collaborative agreements are maintained in main campus with nearby hospitals to provide services in emergencies requiring transfer to hospital.

The Off-campus sites have collaborative agreements with nearby hospitals to provide services in the event of an emergency.

SOCIAL AND CULTURAL ACTIVITIES

Social and cultural activities are available on campus providing opportunities for all students to enhance their educational experience. Social and cultural activities give the students,

faculty and the community an opportunity to watch films, and theatrical performances, attend concerts, workshops and seminars.

The Academic Schools coordinate and present on campus art exhibits, literature presentations, lectures and other activities. Also, the student's organizations coordinate activities related with their academic and professional interests.

The student's participation in these activities aims at developing attitudes, values, sensibility towards art, literature and good citizenship.

SPORTS PROGRAM

The Athletic program is geared to the promotion and active participation of students in all sports activities. It is a fundamental component of the students' life in our Institution, which aims at contributing to the physical and mental growth and wellbeing of its students.

The Sports Complex provides the students and community, recreational athletic activities to promote physical wellbeing such as: swimming lessons, aerobics, athletic therapy and gym membership. The institution has a bus that provides free transportation to and from Main Campus and the Complex for the university community.

The Sports and Recreation Program offers intramural and extramural activities. Through this program, students are encouraged to get involved in extracurricular activities that help to enhance their development and quality of life.

The Intramural Component sponsors tournaments and competitions in the following sports: basketball, volleyball, tennis, cross-country, table tennis, and chess, among others. In addition, the program includes other physical fitness and recreational activities such as aerobic exercise, sports exhibitions, and invitational tournaments.

The extramural program organizes teams for men and women in the following sports: basketball, volleyball, softball, table tennis, chess, tennis, cross country, track and field, weight lifting, and baseball.

The teams participate in intercollegiate activities, organized by the LAI (Intercollegiate Athletic League) and compete with other universities in Puerto Rico.

BOOKSTORE

The Universidad Metropolitana has a bookstore where textbooks, reading materials requested by the faculty, school and office supplies, and other personal supplies are available.

VETERANS AND THEIR BENEFICIARIES SERVICES

The Veteran's Services, located at the Registrar's Office is primarily directed toward the motivation of veterans and their dependents in order that they may effectively exercise their rights to an education.

Veterans and their beneficiaries must complete their program of studies within the time established by their curriculum **(100%)**. Students who extend their studies **beyond the time (150%)** established by the program cannot continue to receive Veteran's benefits. The veterans and their beneficiaries should follow the program sequence, which is distributed by academic year. If the student is a recipient of the Pell Grant, he may resort to the 150% additional time, established by the standard for Satisfactory Academic Progress of the Institution. Veterans should be evaluated utilizing both Veteran's Benefits and Pell Grant criteria, if they are beneficiaries of these.

The student is responsible for notifying any change that occurs in their enrollment to the Certifying Officer and the Department of Veterans and inform any changes such as; change of institution, academic goal or program. The student should use the corresponding forms of each chapter. A student who used the Veteran's benefits at another institution must present the credits' transcript of origin, no later than two semesters.

STUDENT ORGANIZATIONS

According to their interests, students join social service, academic, professional and honorary groups. All students' organizations must be recognized and approved by the office of the Vice Chancellor for Students Affairs. Any group consisting of ten or more regular students and in compliance with the Students Regulations may organize and apply for official recognition of its organization.

Students who are interested should request an application from the Associate Vice Chancellor of Quality of Life and Wellness. The purpose of the organization and the name of the advisor should be stated. All students are encouraged to participate actively in organizations. Participation in students' organizations fosters leadership by developing mutual understanding and respect for social and human values. Also, the students develop leadership skills and help enhance the student's quality of life in the institutional setting.

All student's activities and organizations must be governed by the Student Regulations and other institution's standards. Failure to comply with existing rules and regulations will incur in disciplinary measures and/ or other penalties, accordingly.

STUDENT COUNCIL

There is a Student Council which has, among others, the following functions: to represent the student body, make recommendations to the Vice Chancellor for Students Affairs, participate in various institutional committees, serve as liaison between students, professors and the administration, and to promote the general well-being of the Institution.

Student Council members are elected by secret vote by the members of the Student Government Assembly. The delegates are student body representatives. The Vice Chancellor for Students Affairs supervises the delegate meeting.

The Student Council establishes relationships among students, faculty and administration.

DISCIPLINARY REGULATIONS

Universidad Metropolitana Administrative Council has approved the Students Regulations which include the disciplinary regulations. The students at Universidad Metropolitana are expected to honor, obey and respect these regulations. These principles, rules and regulations are clearly stated in the Institution's by - laws, the Academic Student Handbook, and in the other regular or periodic publications of the Administration.

Important Note:

Due to the importance of the Disciplinary Regulations each student is required to commit himself to read and become familiar with the Student's Handbook, Student's Regulations, academic norms and administrative procedures. These documents are available at the institution web site: www.suagm.edu/UMET under the heading student services, student life and Student Consumer Information.

ASSOCIATE VICE-CHANCELLOR OF SCHOLARSHIPS AND INTERNSHIPS

Offers academic and occupational opportunities and honor scholarships to the students of the Universidad Metropolitana. The internships can be done with a private or a public institution in Puerto Rico or abroad. These experiences compliment the academic preparation and promote the students to the workforce.

The program offers orientations about the available internships, the requirements of each program and provides support to the students in the process of applying them. The internships can be substituted for course credits.

Those students that demonstrate a high academic performance and economic need are eligible to apply for Honor Scholarships. This aid includes partial monetary assistance to pay for tuition fees and stipends to cover book costs. Also, monthly stipends are available for students that meet all requirements and criteria in each program.

The Vice-Chancellor of Scholarships and Internships encourages students to apply for aid with external organizations that are known to provide financial support for college education, professional travel and internships.

The scholarships program promotes the development of leadership, skills and the sense of civic responsibility to those students participating in seminars, associations and in labor community activities.

CHILD DEVELOPMENT CENTER

The Child Development Center is located within the facilities of Universidad Metropolitana (UMET). The purpose of the Center is to offer child care services from 7:00 AM to 10:30 PM to children 2-8 to 4-8 years of age whose parents are eligible students and employees of Universidad Metropolitana. Activities at the Center are designed to foster the integral development of the children by providing them with fun and recreation. The aim is to contribute to the children's self-sufficiency and emotional stability in a safe, loving environment where they can learn to take care of themselves.

From 7:00 AM to 2:00 PM, an educational program sponsored by the San Juan Head Start Program and the Quintana Baptist Church is offered. From 2:00 PM to 10:30 PM the day care services are sponsored by ACUDEN.

UMET Extended Child Care from 2:00 PM to 10:30 PM an educational and recreational program that offers services at no cost including mentoring to the employees' children, after school. It also offers free educational services to the students' children of UMET.

Student Financial Aid

Student Financial Aid

The mission of the financial aid program is to provide the student financial aid assistance to finance their studies according to the criteria of financial need, federal, state and institutional regulations.

Our Student Financial Aid Program operates under the basic principle that the primary responsibility of financing higher education of the family. Therefore, the majority of the funds are offered under the economic criterion of their needs. The objectives of providing a fair distribution of the financial resources are in agreement with the state, federal and institutional dispositions.

The Program is made up of three components, such as: scholarships that are given and thus do not have to be repaid. Student money loans made available at a low interest with reasonable conditions of repayment. The work and study program permits the student to acquire experience of a job related to his/her program of studies and at the same time receives compensation for the work being done, thus helping with his/her educational costs.

The student can be eligible to receive aid of all three components, as long as these available funds will permit it.

GRANT-SCHOLARSHIP PROGRAMS

Federal Pell Grant

This grant helps undergraduate students to pay for their postsecondary education and students must be enrolled at least in three credits to receive the benefit. For the academic year 2014-2015 the maximum annual award is \$5,730 and the student must meet the eligibility requirements of the program.

Federal Supplemental Educational Opportunity Grant (SEOG)

This grant helps undergraduate students with exceptional financial need. The amount of the awards is contingent to availability of funds.

State Funds

The Council of Education of Puerto Rico (CEPR) manages this program. The institution participating in this program must submit the candidates to the CEPR and after the qualifications are met, the institution receives the fund for those students.

LOAN PROGRAMS

Federal Direct Loan

Federal Direct-Ford Loans are offered at a variable interest rate, with a cap of 8.25%. For “Subsidized-Direct” the government pays the interest while you are in school; for “Unsubsidized Direct” you are responsible for paying the interest while you are in school. If you choose not to pay the interest, it will accumulate and be capitalized (added on the principle).

Federal Direct Parent Loan for Undergraduate Students (FDPLUS)

“PLUS” loans are borrowed by parents for dependent students or by students in a graduate program. The interest rate is fixed, with a cap of 9%. Repayment begins 60 days after the First Disbursement.

WORK AND STUDY PROGRAM

Federal Work-Study Program (FWSP)

This is a program that requires the student to work a maximum of 80 hours per semester. The student is paid a competitive wage and is able to gain experience in his area of study.

INSTITUTIONAL SCHOLARSHIPS PROGRAMS

Athletic Scholarship

This program is available to students who have athletic performance. The Athletic Scholarship Committee studies the candidates recommended by the coaches and determine the students’ benefits.

PR Honor

This institutional scholarship program is designed to provide to talented high school students the opportunity of pursuing their college education at UMET. Candidates will be evaluated based on High School GPA and CEEB scores.

Its objectives are:

- Identify those academically talented students motivated into pursuing an Associate or Bachelor’s degree, and who show economic need.
- Facilitate academically talented youngsters who show economic need, access to a high quality university education.
- Foster the necessary conditions to help these students develop their talents and capabilities to their full potential.
- Provide students with a high quality academic program that meets their expectations and attend to their goals.

HOW TO APPLY FOR FINANCIAL AID

Financial Aid is awarded annually. The student must apply each year. The Financial Aid Application will be available after January.

The student must submit the Free Application for Federal Student Financial Aid (FAFSA) or Renewal FAFSA to the U.S. Department of Education. The application must be completed online at the following web site: www.fafsa.ed.gov. The amount of financial aid may vary each year according to your need, the type of aid you are eligible, your academic performance and available funding.

ELIGIBILITY REQUIREMENTS

In order to meet the eligibility requirements, students must:

- have financial need.
- have a high school diploma or a General Education Development (GED) certificate.
- be working toward a degree or certificate.
- be a U.S. citizen or eligible no citizen.
- have a valid Social Security Number.
- not owe a refund on a Federal Grant or be in default on a Federal Educational loan.
- be making Satisfactory Academic Progress.
- be registered with Selective Service (if required).
- be enrolled at least halftime except for the Federal Pell Grant, which allows less-than-halftime enrollment.
- not received a Bachelor's Degree for Pell and FSEOG.
- provide documentation of any information requested by the Office of Financial Aid.

Important Note:

The Institution complies fully with the privacy Rights of Parents and Students Act of 1974 (Title IV of the U.S. Public law 90-247), as amended, which specifically governs access to records maintained by institutions to which funds are made available under any Federal program for which the U.S. Commission of Education has administrative responsibility, and the release of such records provided that such institutions must furnish parents of students access to official records directly related to the students and an opportunity for a hearing to challenge such records on the ground that they are inaccurate, misleading or otherwise inappropriate; that institutions must obtain the written consent of parents before releasing personally identified data from student records to other than a specified list of exceptions; that parents and students must be notified of these rights; that these rights transfer to students at certain points; and that an office adjudicate complaints and violations of this law.

TUITION, FEES AND RELATED INFORMATION

TUITION AND FEES

Once a year the Vice-presidency for Financial Affairs publishes at the University Website information about tuition for all academic programs and other fees for all institutional services. (www.suaqm.edu/UMET)

Average Annual Tuition and Fees \$5,960

Costs are estimated and are subject to change.

Tuition fees are made by credit or contact hour as follow:

Regular Programs	\$ 205.00
Special Programs	\$ 210.00

In addition, the institution has a general fee of \$450.00 per semester. Costs are subject to change from one academic year to the next.

Construction	\$300.00
Technology	\$ 75.00
Services	\$ 45.00
Parking	\$ 20.00
Library	\$ 7.00
Insurance	\$ 3.00

Please note that in attending any university, students will have to allow for other expenses, such as books and supplies, transportation, meals and other personal needs. A variety of financial aid packages are available.

Tuition, fees and service charges must be paid in full during registration or at the time that the services are requested by the student. Payments can be made in cash, or by certified or manager's checks, money orders, or credit cards such as American Express, Visa or Master Card. Receipts for all transactions must be retained, and presented with any claim or adjustment requested. The Bursar's Office will not accept claims without receipts.

TUITION OPTION PAYMENT PLAN (TOPP)

The University has a convenient method for paying educational expenses through scheduled payments over the period of enrollment.

The TOPP will only allow a due balance of \$600.00 that may be paid through a SUAGM's payment plan.

CLEAR STATEMENT

Students with a balance of an outstanding debt will not be allowed to enroll the following semester and will not be able to get access their grades.

INVOICES

The Bursar's Office will mail two invoices during the regular semester. The approximate dates for the mailing of such invoices are: September 30, November 15, February 28, and April 15.

If the invoice is not received in the email, it is the student's responsibility to request it personally from the Bursar's Office.

ADJUSTMENTS AND REFUNDS FOR ACTIVE AND NEW STUDENTS

REFUND POLICY

A. Total Withdrawal

The costs of any student who complete an official withdraw process will be adjusted according to the days attended classes until the date of the official withdraw and the total of semester or part of term days, as applicable.

B. Mid-Point

All students that have WF at the end of the semester, in all courses, will be charged 50% of the total cost of their tuition.

C. Partial Withdrawal

Students who partially withdraw, starting the first day of classes of each semester, the System will charge 100% of the tuition costs.

D. Non- Attendance

Students who do not attend their registered courses will be marked N/A by the professors, given an administrative withdrawal, and refunded 75% the cost of the course. The student will be held responsible for 25% of the cost, as financial aid programs do not cover it.

Important Note:

The Sistema Universitario Ana G. Méndez reserves the right to review the tuitions and fees. It is the student's responsibility to stay informed about charges, fees, schedules, courses, requirements for degrees, tuition and policies of the Bursar's Office by visiting the webpages www.suaqm.edu/UMET.

OFF CAMPUS SITES (UNIVERSITY CENTERS)

The Off Campus sites programs respond to the needs of the communities in the various geographical areas throughout Puerto Rico. The University Centers are located in the towns of Aguadilla, Bayamón, and Jayuya.

The academic programs offered are: Certificate, Associate, Bachelor's and Master's degrees.

The same educational support services that are available on campus are also available at the Centers. These services are: the Offices of the Guidance Counselor, Registrar, Financial Aid, Bursar's, Admissions, and Library. The faculty is from the surrounding community with Master's degree and some with Doctorates, all are recommended for their excellent educational background and experience.

The Three Off-Campus sites offers the following academic programs:

AGUADILLA OFF CAMPUS

Physical address: #111 ST KM.0.6 Bo. Palmar
Aguadilla, Puerto Rico

- Associate in Business Administration in Office Administration and Information Processing
- Associate in Computer Sciences
- Associate in Nursing Sciences
- Associate in Penal Justice in Security and Protection
- Associate Degree in Clinical Therapeutic Massage Associate Degree in Management and Billing of Health Services
- Associate Degree in Pharmacy Technician
- Bachelor in Penal Justice with major in Security and Protection
- Bachelor in Business Administration in Management
- Bachelor in Business Administration in Marketing
- Bachelor in Business Administration in Office Administration and Information Processing
- Bachelor in Business Administration in Information Systems
- Bachelor in Business Administration in Accounting
- Bachelor of Arts in Education in Early Childhood and Primary Education (K-3)
- Bachelor of Arts in Education in Elementary School Education (4-6)
- Bachelor in Education in Physical Education K-12
- Bachelor of Arts in Social Sciences in Psychology
- Bachelor of Arts in Social Sciences in Criminal Justice
- Bachelor of Arts in Social Sciences in Social Work
- Bachelor of Sciences in Nursing
- Bachelor in Public Health in Health Services Management

- Master in Business Administration in Management
- Master in Business Administration in Marketing
- Master in Business Administration in Accounting
- Master in Business Administration in Finances
- Master in Business Administration in Technology and Information Systems
- Master in Business Administration in Human Resources Administration
- Master in Education in Curriculum and Teaching
- Master in Education in Special Education
- Master in Education in Educational Administration and Supervision
- Master in Education in Teaching Physical Education
- Master in Education in Management Leisure Services
- Master of Arts in Education in Adult Education
- Master in Business Administration in Management and Strategic Leadership
- Master of Health Administration Services in Health Services Management
- Master's in the Science of Nursing Clinical Specialist, with a specialty in Critical Care of the Child and Second Role in Administration or Education in Nursing
- Master's in the Science of Nursing Clinical Specialist, with a specialty in Critical Care of the Adult and Second Role in Administration or Education in Nursing

BAYAMÓN OFF CAMPUS

Physical address: #167 St. Centro Gubernamental
 Paseo del Parque, Esq. Santiago Veve
 Bayamón, Puerto Rico

- Professional Certificate Post Bachelor in Oncology Nursing
- Associate in Respiratory Therapy
- Associate in Nursing
- Associate in Health Sciences in Medical Sonography
- Associate in Health Sciences in Vascular Sonography
- Associate in Penal Justice in Security and Protection
- Associate Degree in Clinical Therapeutic Massage
- Associate Degree in Information Systems Associate Degree in Management and Billing of Health Services
- Associate Degree in Pharmacy Technician
- Bachelor in Penal Justice with major in Security and Protection
- Associate in Computer Repairs and Networks Installations
- Bachelor in Business Administration in Accounting
- Bachelor in Business Administration in Management
- Bachelor in Business Administration in Marketing
- Bachelor in Business Administration in Office Administration and Information Processing
- Bachelor in Business Administration in Information Systems
- Bachelor in Education in Preschool Education

- Bachelor in Education in Elementary School Education (4-6)
- Bachelor in Art of Social Sciences in Psychology
- Bachelor in Social Sciences in Criminal Justice
- Bachelor in Art of Social Sciences in Social Work
- Bachelor of Sciences in Nursing in English (Spanish)
- Bachelor of Health Sciences in Speech-Language Therapy
- Bachelor of Health Sciences in Medical Sonography in Periferovascular
- Bachelor in Public Health in Health Services Management
- (Combined BS & MS) Bachelor of Health Sciences in Speech-Language Therapy and Master of Sciences Speech-Language Pathology
- Master in Business Administration in Management
- Master in Business Administration in Marketing
- Master in Business Administration in Human Resources Administration
- Master in Business Administration in Accounting
- Master in Business Administration in Management and Strategic Leadership
- Master in Education in Preschool Education
- Master's in the Science of Nursing Clinical Specialist, with a specialty in Critical Care of the Child and Second Role in Administration or Education in Nursing
- Master's in the Science of Nursing Clinical Specialist, with a specialty in Critical Care of the Adult and Second Role in Administration or Education in Nursing
- Master's in the Science of Nursing Clinical Specialist in Case Management and Second role in Administration or Education in Nursing
- Master of Health Administration Services in Health Services Management
- Master in Business Administration in Leadership in Project Management

JAYUYA OFF CAMPUS

Physical address Catalina Figueras #100 St.
Jayuya, Puerto Rico

- Associate in Computer Sciences
- Associate in Criminal Justice
- Associate in Architectural Drafting
- Associate in Nursing
- Associate in Penal Justice in Security and Protection
- Associate Degree in Clinical Therapeutic Massage Associate Degree in Management and Billing of Health Services
- Associate Degree in Pharmacy Technician
- Bachelor in Penal Justice with major in Security and Protection
- Bachelor in Business Administration in Management
- Bachelor of Arts in Education in Early Childhood and Primary Education (K-3)
- Bachelor of Arts in Education in Elementary School Education (4-6)

- Bachelor of Arts in Social Sciences in Social Work
- Bachelor in Business Administration in Information Systems
- Bachelor in Public Health in Health Services Management
- Master in Education in Curriculum and Teaching
- Master in Business Administration in Human Resources Administration
- Master in Business Administration in Management and Strategic Leadership

Associate Vice-Chancellor for Retention & Student Development

ASSOCIATE VICE-CHANCELLOR OF RETENTION AND STUDENTS DEVELOPMENT

The Associate Vice-Chancellor for Retention & Student Development office, develops, promotes and facilitates adjustment to the university life all the way through the transition of the students up until becoming graduation candidates. This office fosters interaction among students, faculty and staff to provide the academic and personal support necessary for students to complete degree requirements. The following services are provided:

CENTER FOR THE EVALUATION, DIAGNOSIS AND PLACEMENT OF FIRST YEAR STUDENTS

The Center gathers information about the skills of the students at the beginning of their academic experience. A placement test in Mathematics, English and Spanish is administered to incoming students that have not taken the College Board Test. The results are utilized in three ways: first, it helps place students in the appropriate course level. Second, it identifies students who require certain developmental skills in languages. Finally, it identifies students who do not possess an adequate dominance in the language and must enroll in an immersion course.

THE FIRST-YEAR OFFICE

The First-Year Office provides a comprehensive introduction to the academic and social environment with a focus on the success and retention of all first-year students. It also provides a wide range of services including: orientation and counseling, academic advising, follow-up in the classroom (Early Alert System), enrollment according to the placement of the student, welcoming new students and academic orientation, application of satisfactory academic progress standards, academic evaluations and study plans.

YEAR INDUCTION PROGRAM

The purpose for the First-Year Induction Program is to develop knowledge, skill techniques and attitudes to facilitate students' transition process throughout their college experience. The First-Year Induction Seminar integrates four approaches directed to the achievement of the students' educational goals: strengthening of academic skills and techniques; development of logical and critical thinking as fundamental skills for learning; study of personality traits that are important for students' success; and exploration of vocational and career preferences from a holistic perspective.

PHILOSOPHY STATEMENT FOR THE FIRST-YEAR EXPERIENCE

"UMET establishes that The First-Year Students' Experience is a transition period to university life geared to help students in their intellectual growth and personal development. Provided an, optimal, inclusive environment of learning and support at the beginning of students' life until graduation, students will acquire knowledge, develop social skills, attitudes and a world vision essential for academic

and personal success. They will become life-long learners, leaders and responsible citizens."

GOALS

The Philosophy statement of First-Year Experience commits UMET to:

1. Establish planned organizational structures, leadership and resource allocation to support the students' first-year experience.
2. Provide planned services, based in first-year institutional policies and practices, geared to help students in their transition to university life and to help them fulfill their personal and professional goals.
3. Deliver and implement planned comprehensive curricular and co-curricular initiatives to engage the students in clarification of goals; knowledge acquisition for personal growth; life-long learning; understanding their role and responsibility as university students; learning to become engaged citizens and active contributors to society; and developing their skills for professional and personal success.
4. Foster a culture of faculty responsibility for the First-Year that is accomplished through professional qualification, high-quality instruction and substantial interaction between students and faculty inside and outside of the classroom; nurtured by administrators and staff personnel; and supported by the institution's rewards' system.
5. Establish a systematic process to anticipate, diagnose and address the diversity of first-year students' needs in order to provide the services accordingly.
6. Ensure a campus environment that is inclusive; safe for all students, and that helps them develop an integral sense of belonging, and professional and personal wellness.
7. Provide students the opportunity to develop a world vision and to become members of pluralistic communities by experiencing the interaction with people with different backgrounds, culture, ideas and values; and the study of their own culture and those of others.
8. Establish an ongoing assessment process of personal and academic achievement of students as a strategy to guarantee student persistence and degree completion.

9. Conduct assessment and maintain association with other FOE certified institutions and relevant academic and non-academic organizations in order to achieve ongoing first-year improvement

ORIENTATION AND COUNSELING PROGRAM

The Professional Orientation and Counseling Program provide students with the experiences for academic, personal and vocational/occupational development. Professional Counseling is offered on an individual or group basis and facilitates student adjustment to the University environment.

ACADEMIC ADVISING PROGRAM

The Academic Advising Program is a core component and is set up as the most comprehensive strategy to support students in achieving academic success. Advisors provide an early, continuous, and intensive students' follow-up in order to address all matters of an academic nature.

ACADEMIC MONITORING SYSTEM (EARLY ALERT SYSTEM PROGRAM)

The purpose of the Early Alert System Program is to identify and reach out to students who are experiencing absences in the classroom or academic, learning, behavioral, or personal concerns. The faculty teaching First-Year courses refer students with these difficulties to Professional Counselors and Academic Advisors. The Early Alert System Program is a collaborative effort that enhances academic success and student persistence.

PEER MENTORING PROGRAM

The Peer Mentor Program plays an integral role in the First-Year Induction Seminar by recruiting highly-skilled undergraduate students to mentor incoming students to the University. They serve as a mentor to students enrolled in the First-Year Induction Seminar by helping them with the transition from high school to university life. In addition to providing support, mentors are also bridge-builders between their first-year mentees and the student service departments across campus.

FACULTY MENTORING PROGRAM

The Mentoring Program provides support for freshmen students, to positively impact student success, and to enhance student learning. As part of an integrated advising team, a professor is assigned to each participating student to ensure a successful transition to the college environment.

PARENTS AND FAMILY PROGRAM

The Parents and Family Program at UMET provides communication between the University and parents of our students in order to support student success, generate

goodwill for the University, and promote an appropriate role for parents within the campus community.

The Parent and Family Program, in collaboration with offices and departments throughout the campus, works with parents to help them understand the student experience, support student learning, and empower students to take personal responsibility for their social and academic choices.

LEARNING ZONE (TUTORING PROGRAM)

The Tutoring Program is a component of a student support in order to help students be more successful. Through one on one, groups and online tutoring, the student is aided in understanding a concept, clear any doubts from class, and go over techniques needed to complete assignments. During a tutoring session the student works at his or her own pace, style, and sets the level of the lesson. To accomplish this, the tutors task themselves with knowing how to stimulate the students according to their needs through use of various resources, tools, and teaching strategies. This service is available free of charge.

ACADEMIC ADVISING (UPPER DIVISION)

The Academic Advising Program at UMET is provided by both professional advisers and faculty advisers. We recognize that quality academic advising is integral to the academic development and well-being of students. Quality academic advising includes both the prescriptive elements of advising such as: assisting with course selection, maintaining curriculum checklists, and tracking degree progress. In the developmental aspects of advising are: major and career decision making, integration in campus and academic cultures, assistance with and referrals surrounding issues affecting a student's academic success.

Information Resources

Information Resources

Library

The mission of the Library is to provide agile information services, through an updated collection, accessible presential or by remote access, with the assistance of competent staff, located in optimal quality physical facilities and environment. The Library web page <http://bibliotecaumet.suagm.edu> offers all the information about collections and services. The automated system provides access to information resources that can be requested by Interlibrary Loans in all of AGMUS institutions and its University Centers, in Puerto Rico and the Main Land.

The library also offers a variety of services which provide the skills needed for the effective use of the information resources, such as Information Literacy, Virtual Reference Services, Faculty Liaison Program and Tutorial and Guides. As the whole campus, the Library offers WiFi connection and remote access to all it's collection.

Regular Services

Circulation

The service point that provides general and specialized books that can be borrowed by library users, for extended periods of time.

Reserve

Include resources that have been identified in the coarse outline, such as textbooks and other information resources that are placed by faculty members for specific courses, and are borrowed for limited time period of time.

Reference

Provides specialized and basic reference sources that can be found in dictionaries, encyclopedias biographies, yearbooks, atlas, and government documents. Assists with library instruction and the use of electronic resources.

Special Areas

Center for the Access to Information Resources (CARI)

It is a working open space, for students to look for information or prepare works. It is equipped with multiple computers, printers and photocopying machines. Specialized personnel give attention to students. Here also is the laboratory where the librarian gives the workshops.

Center for Environmental Information in the Caribbean (CIAC)

This collection is specialized in environmental resources that include environmental planning, conservation of natural resources, environmental risk management, and environmental education.

Olga Nolla Puertorrican Collection

This area is composed of the Olga Nolla Collection, the Eugenio Fernández Méndez Collection, the Puertorrican Collection, and the Information File. The Olga Nolla Puertorrican Collection has resources in a variety of formats that range from print formats (books and periodicals) to government documents, multimedia, digital resources and newspaper clippings that can be found in the Information File. The collection also harbors the theses and dissertations that have been submitted by the graduate students at the University.

Collection Development

This unit is responsible for all the procedures that pertain to collection development, such as selection, acquisition, receiving, cataloguing, labeling, distribution, bookbinding, and the weeding of library bibliographic resources.

Biblioteca Siglo XXI Luis G. Fortuño

Since 2014 it houses Biblioteca Siglo XXI Luis G. Fortuño, a space for the development of research opportunities in the Governor's administration and in specific themes as economic development.

UMET Undergraduate Academic Offer

Classification of Instructional Programs (CIP)

SCHOOL OF BUSINESS

PROGRAMS	CREDITS	CIP-CODE	LENGTH OF PROGRAM
Associate Degree of Business Administration in Marketing	71	52.1401	2 years + 2 months
Associate Degree of Business Administration in Office Administration and Information Processing	65	52.0402	2 years+ 2 months
Associate Degree in Business Administration with a major Entrepreneurship	69	52.0701	2 years + 2 months
Bachelor's Degree in Business Administration with a major in Information Systems	125	52.1201	4 years
Bachelor's Degree in Business Administration with major in Office Administration and Information Processing	124	52.0204	4 years
Bachelor's Degree in Business Administration with major in Marketing	123	52.1401	4 years
Bachelor's Degree in Business Administration with a major in Finance and Economics	120	52.0601	4 years
Bachelor's Degree in Business Administration with a major in Accounting	124	52.0301	4 years
Bachelor's Degree in Business Administration with a major in Management	123	52.0201	4 years
Bachelor's Degree in Business Administration with a major in Entrepreneurship	121	52.0799	4 years
Master's Degree in Accounting – MACC	150	52.0301	5 years

SCHOOL OF EDUCATION

PROGRAMS	CREDITS	CIP-CODE	LENGTH OF PROGRAM
Associate Degree with an Emphasis as an Exercise Instructor	60	31.0501	2 years
Bachelor's Degree in Education with a major in Exercise Science and Health Promotion	114	31.0501	4 years
Bachelor's Degree in Education with a major in Special Education K-12	119	13.1001	5 years
Bachelor of Arts in Education with a major in Early Childhood Education, Kindergarten through Third	116	13.1209	5 years
Bachelor of Arts in Education with a major in Elementary Education, Fourth to Sixth	116	13.1202	5 years
Bachelor of Arts in Secondary Education in Spanish	125	13.1330	5 years
Bachelor of Arts in Secondary Education in History	125	13.1328	5 years
Bachelor of Arts in Secondary Education in English	125	13.1305	5 years
Bachelor's Degree in Education in Recreation and Sports	117	13.1399	5 years
Bachelor's Degree in Education with a major in Early Childhood Education	122	13.1210	5 years
Bachelor's Degree in Education with a major in Physical Education K-12	117	13.1314	5 years

SCHOOL OF SOCIAL SCIENCE, HUMANITIES, AND COMMUNICATIONS

PROGRAMS	CREDITS	CIP-CODE	LENGTH OF PROGRAM
Associate's Degree in Penal Justice with an Emphasis on Safety and Security	54	43.0107	2 years
Bachelor's Degree of Social Sciences with a major in Psychology	123	42.0101	4 years
Bachelor of Social Science with major in Criminal Justice	120	43.0103	4 years
Bachelor's Degree in Social Sciences with a major in Social work	123	44.0701	4 years
Bachelor of Arts with a major in Cultural Management	123	24.0103	4 years
Bachelor of Arts in Communication with a major in Digital Production	123	09.0702	4 years
Bachelor of Arts in Communication with a major in Public Relations	123	09.0900	4 years
Bachelor of Arts in Communication with a major in Media Management	123	09.0702	4 years

SCHOOL OF SCIENCE AND THECNOLOGY

PROGRAMS	CREDITS	CIP-CODE	LENGTH OF PROGRAM
Associate Degree in Computer Science	75	11.0701	3 years
Bachelor's Degree of Science with a major in Computer Science	121	11.0701	4 years
Bachelor's Degree of Science with a major in Environmental Science	124	03.0104	4 years
Bachelor's Degree of Natural Sciences in Biology	124	26.0101	4 years
Bachelor's Degree of Science with a major in Molecular Cell Biology	125	26.0204	4 years
Bachelor's Degree of Science with a major in Chemistry	124	40.0501	4 years
Bachelor's Degree of Science with a major in concentration in Bio-Mathematics	123	26.1199	4 years
Bachelor in Science with major in Instrumentation, Automation and Control	98	15.0406	4 years

SCHOOL OF HEALTH SCIENCES

PROGRAMS	CREDITS	CIP-CODE	LENGTH OF PROGRAM
Associate Degree in Nursing	71	51.3801	3 years
Associate Degree in Respiratory Therapy	84	51.0908	3 years
Associate Degree in Health Sciences with a major in Medical Sonography	71	51.0910	3 years
Associate Degree in Health Sciences with a major in Vascular Sonography	71	51.0910	3 years
Bachelor's Degree of Science in Nursing	125	51.3801	4 years
Bachelor's Degree of Science with a major in Respiratory Therapy	114	51.0908	4 years
Bachelor's Degree in Health Sciences in Medical Sonography with a major in Perivascular	120	51.0901	5 years
Bachelor's Degree of Health Sciences with a concentration in the Speech – Language Therapy	123	51.0203	5 years
Combined BS & MS Bachelor of Health Sciences in Speech-Language Therapy and Master of Sciences Speech-Language Pathology	166	51.0203	6 years

SCHOOL OF TECHNICAL PROFESSIONAL STUDIES

PROGRAMS	CREDITS	CIP-CODE	LENGTH OF PROGRAM
Associate Degree in Architectural Drafting	74	15.1301	3 years
Associate Degree in Criminal Justice	63	43.0104	2 years + 1 Semester
Associate Degree in Computer Repair and Networks Installation	69	47.0104	2 years + 1 Semester
Associate Degree in Clinic Therapeutic Massage	77	51.3501	3 years
Associate Degree in Dental Assistant with Expanded Function	77	51.0601	3 years
Associate Degree in Information Systems	70	11.1003	2 years + 1 semester
Associate Degree in Management and Billing of Health Services	72	52.0407	2 years + 1 semester
Associate Degree in Operating Room Technician	66	51.0909	2 years + 1 semester
Associate Degree in Pharmacy Technician	74	51.0805	3 years
Associate Degree in Sports and Recreation Programs Administration	65	31.0504	2 years + 1 semester

SCHOOL OF PROFESSIONAL STUDIES (AHORA)

PROGRAMS	CREDITS	CIP-CODE	LENGTH OF PROGRAM
Bachelor's Degree in Public Health with a major in Health Services Management	122	51.2211	4 years

UMET's General Education Component

UMET'S GENERAL EDUCATION (GE)¹

INSTITUTIONAL GOAL

General Education (GE) is the foundation over which mastery of knowledge, competencies and skills at the college and university levels is built. One of this institution's aims is to contribute to the strength of this foundation by enhancing the levels of students' proficiencies in the competencies associated with General Education so they can succeed as valuable lifelong learners, professionals, citizens and individuals in Puerto Rico, the Caribbean and the World.

PROGRAM GOALS

The completion of the General Education Component provides students the skills and competencies that allow them to:

1. Explain theories on the origins and development of human beings and the physical world.
2. Describe and analyze the sciences that examine the individual human conduct.
3. Explain human conduct through the disciplines of the humanities and their impact on individual and social development.
4. Develop oral and written communication skills in Spanish and English.

5. Develop and apply information management skills, scientific method and quantitative and qualitative reasoning.

6. Develop technological capabilities for data management and information literacy.

The above are UMET's expression of the following general education competencies: (1) disciplinary literacy in the humanities, history, the natural sciences, and social sciences; (2) oral and written communication in English and Spanish; (3) critical thinking skills (4) quantitative literacy; and (5) technology and computer literacy which correspond with those expressed by MSCHE.

At UMET the General Education component of the curriculum consists of two (2) levels. Level 1 consisting of 45 credits in the General Education Basic Component, which are required to all UMET students regardless of School affiliation or major, selected at the baccalaureate level; and 24 credits for the associate degree level. Level 2 varies in number of credits from School to School, according to disciplinary requirements. All academic schools and units are required to systematically review their mission, goals, and targeted General Education student learning outcomes to ensure their alignment to the institutional mission and General Education competencies. The UMET Comprehensive General Education Assessment Plan is aligned with the institution's Mission, Vision, and expected General Education competencies or outcomes, as well as with MSCHE's *Characteristics of Excellence*. This alignment assures that all assessment activities are

¹ The General Education (GE) courses may vary by academic program. Refer to each academic school for details.

cohesive, comprehensive, and grounded in the key documents that guide the quality of the education provided by the Institution.

IMMERSION COURSES

COURSES DESCRIPTIONS

ENGL 116 Basic English Immersion Course Three Credits

This course is a comprehensive based offering for first level Basic English students It includes basic grammar structures, oral practice, reading, and writing activities.

ENGL 117 Basic English Immersion Course Three Credits

This course is a comprehensive based offering for first level Basic English students. It includes basic grammar structures, oral practice, reading, and writing activities. It provides innovative teaching-learning practices, intensive use of technology, enrichment activities to promote interdisciplinary learning experiences, and regular assessment of the students' learning. All activities of the course are geared to develop oral communication, reading, and writing specific competencies which may be clearly assessed during the students' learning process.

MATH 116-117 Basic Mathematics Immersion Six Credits Course

This course aims to strengthen the basic skills necessary to implement solutions to students' daily life situations. Concepts of arithmetic, algebra, geometry and Interpretation Charts are reviewed. Particular emphasis is given in problems solving.

READ 116 Reading and Critical Thinking Three Credits

This course integrates the following skills: reading comprehension, inference, analysis, writing, use of technology and information resources. The course content promotes the students' development within the context of the

humanities and the social sciences. It explores the university as a place where students develop reading and critical thinking skills as well as practical skills. This course also promotes social and ecological consciousness and provides students with experiences that expands their knowledge and use of computers and the proper use of online information resources as learning tools.

BIOL 103-104 Anatomy and Physiology Eight Credits

Designed for students of the Allied Health Sciences Programs. It integrates the histo-macro and microanatomy of human systems with their corresponding physiology. Two semesters, three lecture hours and three laboratory hours per week.

BIOL 105 Microbiology Four Credits

Designed for students of the Allied Health Sciences Programs. Discusses fundamental concepts of microbiology, including the latest advances in the area. It covers micro-organisms, their pathology, methods for controlling their growth and immunology. One semester, three lecture hours, and three laboratory hours per week.

BIOL 106 Human Anatomy Four Credits

It is a course designed for students of the of Nurse Associated Degree and Nurse Baccalaureate Degree Programs in Sciences Integrate micro -, cyto -, histo- and macro anatomy concepts; basic concepts of Anatomy, foundations on structure of the cells, tissues, organs and systems, necessary for the general knowledge of the human body. One semester, three lecture hours, and three laboratory hours per week.

BIOL 227 Environmental Health

An introduction to environmental health. Study of: 1) basic concepts about the ecology of natural systems; 2) environmental problems, such as: increase in human population; soil and mineral usage; air, water and soil pollution; global warming; ozone layer depletion; solid, toxic and hazardous waste; and nonrenewable energy resources; 3) alternatives to either maintain or to improve the quality of the environmental. Special emphasis is given to environmental problems in Puerto Rico.

CHEM 105 Health Chemistry**Four Credits**

An introductory chemistry course designed for students of the Allied Health Sciences Programs. A survey of matter, chemical properties, and basic electronic configurations of the elements. Students will also study aqueous phase reactions and the use of radioisotopes in medicine. Organic functional groups, their structures, nomenclature, and reactions will be studied in relation to major organic molecules such as proteins, carbohydrates, nucleic acids, etc. Metabolic reactions of these molecules will be surveyed. One semester, three lecture hours and three laboratory hours per week. Requisite: MATH 102

COIS 101 Introduction to Computers**Three Credits**

This course develops in the student levels of productivity in the use of computers, necessary to perform effectively in their personal and work environment. Throughout the course, the student will acquire the competencies of a beginner level user, while being exposed to the most recent technological developments. The student will learn desktop applications used to create documents, spreadsheets, audiovisual presentations, electronic mail, and internet searches. Requires laboratory.

COIS 202 Computers in Education**Three Credits**

An introductory course aimed at acquiring knowledge about the importance of the computer as an essential tool in the process of integrating technology in education. It prepares students for education for the selection, evaluation and use of information technology and communications technology (ICT) in teaching their subject, access and communication through various information resources and the development of personal responsibility and social care, protection and violation of intellectual property and, in general, the social value of education of information technology.

COSC 111 Computer Literacy**Three Credits**

Introduction to the basic concepts of computer sciences. The general functions of the Central Processing Unit and the input and output devices are discussed. The students use some of the most popular application programs available in the market, such as electronic spreadsheets, word processors, and graphics. One semester, three lecture hours, and three laboratory hours per week.

ENGL 101-102 Introductory English Language**Six Credits Course -Basic Level**

Emphasizes the development of basic written communication and reading skills. Grammar instruction is provided for students who need to improve their proficiency in English.

ENGL 103-104 Introductory English Language**Six Credits Course - Intermediate Level**

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

ENGL 105-106 Introductory English Language Course - Advanced Level
Six Credits

This course includes a review of grammar emphasizing written communication through the study of the content and form of the essay.

ENGL 114-115 Basic English I and II
Six Credits

The students of Education School will emphasize in strengthening of basic reading comprehension and writing skills. An integrated language arts approach will be used; therefore, specific grammatical skills will also be developed along with oral communication and listening skills. The ability to organize one's thoughts, to express them simply and clearly, and to observe the standards and conventions of language usage will be developed. Short research projects will be developed through the integration of technology (individual, pair, or group work). Classes will meet three (3) hours weekly.

ENGL 201-202 Second-Year English - Basic Level –Introduction to Literary Genres II
Six Credits

Basic introduction to the study of literary genres. Aims to develop an appreciation of the short story and the novel, the essay, poetry and drama. Requisites: ENGL 101-102

ENGL 205-206 Second-Year English – Advanced Level - Introduction to Literature
Six Credits

An introduction to the study of English literary genres. Aims to develop an appreciation of the literary genres through the analysis of the basic elements of each genre. Required course for English majors. Requisites: ENGL 103-104 or ENGL 105-106

ENGL 207 Basic Level: Reading and Writing
Three Credits

English 207 is designed for those students who have completed the first-year basic English courses. This course will continue to emphasize and review the fundamental reading and writing skills needed to communicate effectively in English. Required course of all students in the Bachelor of Arts Degree in Education. Requisites: ENGL 101-102 or ENGL 104-104 or ENGL 105-106

ENGL 212 Second Year Business English – Basic Level
Six Credits

Emphasizes vocabulary development and grammar structures for effective oral and written business communication. Required course for Business Administration students. Requisites: ENGL 101-102 or ENGL 103-104 or ENGL 105-106

ENGL 350 Conversational English
Three Credits

This course provides practice for the development of oral communication skills to be used in personal and professional settings. Requisites: ENGL 101-102, ENGL 103-104, or ENGL 105-106 and a 200 level english course.

ENGL 361 Technical Writing
Three Credits

This course is a guide for the development of writing skills for students who need to function and succeed in their everyday lives. Provides the simplest and yet the most essential skills in technical written communication. Requisite: ENGL 101-102, ENGL 103-104, or ENGL 105-106 and a 200 level english course and ENGL 350

FYIS 101 First Year Induction Seminar
Three Credits

The First Year Induction Seminar foster the development of the knowledge, skills, techniques and attitudes needed to make a

successful transition to college. One semester, three hours per week.

**HIST 101 Introduction to the Study
Three Credits of History**

The course is an introduction to the study of historical and cultural affairs. Promotes understanding of the importance, meaning and pleasure of the study of history, as well as the knowledge on the process of writing. Empower the university student to learn of the many lessons we can learn from history. It answers the question: What's the story?

**HIST 253 History of Puerto Rico –
Three Credits Compendium**

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

**HIST 258 History of Puerto Rico
Three Credits**

The Students of School Education, will study and analyze of Puerto Rico's historical development from its beginnings to the present. Emphasis is given to the social, political, economic and cultural development of the island.

**HIST 277 History of the United States
Three Credits**

The Students of School Education, will study the most important social, cultural, political and economic events in the history of the United States, from the colonial period to the present.

**HUMA 101-102 World Cultures
Six Credits**

Critical study of human cultural evolution from the origin of the cities and the urban life, until modern society. Special attention is given to critical cultural events. The course promotes

understanding of the moral, social and cultural aspects of Puerto Rican society in the global context.

**HUMA 105-106 Interdisciplinary Approach to
Six Credits the Study of the Humanities**

Thematic mini-courses which study human values, artistic and literary expression, religion, society, culture, and the Puerto Rican reality.

**HUMA 111-112 Introduction to Western
Three Credits Culture I and II**

These courses offers the opportunity for students education, to acquire skills for critical study of the humanity cultural evolution from the origin of the cities and the urban life until the modern society. Attention to the most important cultural events. Promotes understanding of the moral, social and cultural aspects of Puerto Rican society in the global context.

**MATH 101 Mathematical Reasoning I
Three Credits**

This course offers the opportunity to acquire skills necessary to apply in the solution of situations that appear in the newspaper to live. In addition, ample the operational range with its applicability to different from professional criminals. It develops skills of operations with the cardinal numbers, decimal, fractional, whole and their applications. Also it introduces basic skills in the field of geometry and the one of measurement as much in the Metric system (System the International) and in the English (American Units), by its importance nowadays. This course is developed weekly in 3 hours and includes one hour of laboratory for a total of four hours weekly.

**MATH 102 Mathematical Reasoning II
Three Credits**

The content of this course is designed to satisfy the necessities with the students of Communications, Social Humanities, Sciences and Education in: Statistic and Probability, Elementary Algebra and Applications of Geometry. This includes the basic of Statistic, the concept of Probability and its applicability to the present world, graphical knowledge like means of Geometry, great impact in the life of the today world. This course is developed weekly in three hours and includes one hour of laboratory for a total of four hours weekly.

**MATH 103-104 Mathematics for Teachers
Six Credits**

These courses offer the opportunity to acquire skills necessary to apply in the solution of situations that appear in live. In addition, ample the operational range with its applicability to different professions. It develops skills of operations with real numbers and their applications. It also introduces basic skills in the field of geometry by its importance in the life.

**MATH 111 Intermediate Algebra I
Three Credits**

Real number system, equations and inequalities in one variable, linear graphs, systems of equations and their applications. One semester, three lecture hours and one laboratory hour per week. Requisite: Placement Test or MATH 102

**MATH 112 Intermediate Algebra II
Three Credits**

Lineal equations, polynomials, factoring, rational expressions, rational exponents, radicals and equations, complex numbers, quadratic equations and its applications. One semester, three lecture hours per week. Requisite: Placement Test or MATH 111

**MATH 119 Intermediate Algebra
Three Credits**

This course offers the opportunity for students education to acquire skills to apply the Real number system, equations and inequalities in one variable, linear graphs, systems of equations and their applications. Integrates different science concepts applying the scientific method. It establishes the relationship between science and technology.

**PHIL 103 Principles of Reasoning
Three Credits**

Presents methods and principles of knowledge and reasoning. Introduces fundamentals of modern logic and its application. Emphasis given to the development of analytical skills useful for effective problem solving. Requisites: HUMA 101-102

**PSYC 123 General Psychology Survey
Three Credits Course**

Survey course in general psychology. Study of basic principles, concepts and theories of individual and social behavior. Requisites: SOSC 101-102 or SOSC 103

**QUME 250 Quantitative Methods I
Three Credits**

Pre-calculus for students of Business Administration and Economics. Includes: linear equations, linear inequalities, relations and functions. Logarithmic and exponential functions, financial mathematics and matrix algebra. Application problems are included for each content area within the Business Administration and Economics context. Requisite: MATH 112

**QUME 251 Quantitative Methods II
Three Credits**

Differential calculus and an introduction to integral calculus with applications for Business Administration and Economics. Topics covered are: the concept of limit, continuity, derivative

of a function, basic rules of differentiation, applications of the derivatives, compound interest, marginal analysis, graphics and function optimization. Introduction to integral calculus. Requisite: QUME 250

**READ 116 Reading and Critical
Three Credits Thinking**

The immersion courses in Reading and Critical Thinking integrate reading comprehension, inference, analysis, writing and use of technology. The course content includes the development of the student from the context of the humanities and social sciences. It includes a varied agenda that includes the development of reading skills and critical thinking. This course explores the university as a place where not only a practical skill, but few skills ecological and social concerns are learned. The course also provides students with experiences that broaden their knowledge and use of computer and cyber network as learning tools.

**SCIE 111 Integrated Sciences I
Three Credits**

This course integrates different science concepts applying the scientific method. It establishes the relationship between science and technology. Students will study the origin and development of the Universe, particularly that of planet Earth, and the origin and evolution of organisms. Students will study matter and energy concepts applied to systems. Various energy sources and uses are described as well as their environmental impact incorporating Puerto Rico's situations.

**SCIE 112 Integrated Sciences II
Three Credits**

This course integrates different science concepts through the scientific method. They will study the origin and evolution of organisms, the interaction among them, with the

environment and the importance of conservation of the environment and biodiversity. They will study the human body as a system emphasizing human and public health, nutrition and sexuality.

**SCIE 116 Integrated Science Teacher I
Three Credits**

The Students of Education School, will study the origin and development of the Universe, particularly that of planet Earth, and the origin and evolution of organisms. Students will study matter and energy concepts applied to systems. Various energy sources and uses are described as well as their environmental impact incorporating Puerto Rico's situations.

**SCIE 117 Integrated Science Teacher II
Three Credits**

The Students of School Education, will integrate different science concepts applying the scientific method. It establishes the relationship between science and technology. Students will study the climate aspects of Earth in particular that of Puerto Rico. They will study the interdependent interactions between organisms, with the environment and the importance of conservation of the environment and biodiversity. They will study the human body as a system emphasizing health, nutrition and sexuality.

**SOSC 101 Introduction to the Social
Six Credits Sciences I**

Course offers introductory view of general principles and fundamentals of the social sciences, specifically anthropology, sociology and psychology. By way of a guided use of the scientific method, social dynamics are scrutinized with particular attention to the role and effect of cultural, class, gender, race and ethnic differences as well as that of globalization in the contemporary world.

**SOSC 102 Introduction to the Social
Six Credits Sciences II**

This is the follow up to the introduction to the social sciences course, focusing on political science, economics and demography. This course analyses the manners in which political systems obtain, maintain and lose power; the shifts and changes in world population; the effects of a globalized economy in Puerto Rico and abroad. Particular attention is placed on important variables such as cultural diversity, social class, gender, race and ethnicity. Requisites: SOSC 101

**SOSC 103 Introduction to Social Sciences
Three Credits - Survey Course**

Survey course on general principles and foundations for the social science disciplines: anthropology, sociology, psychology, economics and political sciences. Analysis of social problems.

**SOSC 113 Introduction to Social
Three Credits Sciences Survey Course**

The Students of School Education, will study and analyze the general principles and foundations for the social science disciplines: anthropology, sociology, psychology, economics and political sciences. Analysis of social problems.

**SPAN 101-102 Introductory Spanish
Six Credits Language Course-Basic Level**

The history and evolution of the Spanish language. Development of reading and writing skills. Vocabulary enrichment. Analysis of basic Spanish grammatical structures, supplementary readings.

**SPAN 103-104 Introductory Spanish
Six Credits Language Course –
Intermediate Level**

Introduction to linguistics. The historical evolution of the Spanish language in Puerto

Rico. Grammar review, vocabulary enrichment and written communication. Latin American Literature.

**SPAN 105-106 Introductory Spanish
Six Credits Language Course –Advanced
Level**

Written communication. Readings of masterpieces of Hispanic literature. Emphasis on techniques of literary criticism and research.

**SPAN 114-115 Basic Spanish I and II
Six Credits**

The Students of Education School, will study the history and evolution of the Spanish Language. Development of reading and writing skills. Vocabulary enrichment. Analysis and interpretation of reading using the following as a reference frame: vocabulary in context, main idea, secondary idea, relationships of ideas, types of discourse, and types of language. Construction of the written message from the sentence to the paragraph.

**SPAN 211 Appreciation of Puerto Rican
Three Credits Literature**

A survey of outstanding themes and techniques which describe Puerto Rican literature. Study of the evolution of literary movements. Emphasis on oral and written reports from readings. Requisites: SPAN 101-102 or SPAN 103-104 or SPAN 105-106

**SPAN 215 Written Composition
Three Credits**

Develops proficiency in the practical use of written language; current idiomatic Spanish. Provides practice in the more complex problems of sentence structure and usage and in theme writing and analysis. Requisites: SPAN 101-102 or SPAN 103-104 or SPAN 105-106

SPAN 218 Oral Communication

Three Credits

Develops skills needed for public speaking. Emphasizes correctness, clarity, organization and delivery behaviors in accordance with subject matter and audience. Rhetorical skills are developed through instruction and practice. Requisites: SPAN 101-102, or SPAN 103-104, or SPAN 105-106

SPAN 219 Advanced Writing

Three Credits

This course offers the opportunity to acquire skills necessary to develop proficiency in the practical use of written language; current idiomatic Spanish. Provides practice in the more complex problems of sentence structure and usage and in theme writing analysis

School of Business

SCHOOL OF BUSINESS

The School of Business, accredited by the Accreditation Council for Business Schools and Programs (ACBSP), offers an innovative, competitive, and stimulating learning experience for motivated persons committed to acquiring the requisite technical, critical thinking and decision making skills for a successful Entrepreneurship career in a rapidly changing business and social environment. The curriculum supports our students' intellectual and ethical development with the state-of-the-art technology to build an extensive knowledge base and life-long learning skills that empower them to make efficient and principled choices, both for their personal growth and toward the development of a more just society.

The School of Business strives to stimulate its students to engage in ethical Entrepreneurship behaviors that support the present and future economic and social development of Puerto Rico and its role on a world economy.

OBJECTIVES

The School of Business encourages our students to:

- Develop a critical attitude towards the challenges and options facing contemporary society.
- Compete effectively in the current economic climate.

- Apply their skills to search for creative alternatives to the social and economic development issues of our time.
- Participate in the democratic exchange of ideas from a position of tolerance for diversity.
- Adhere to strong ethical standards and behave in a socially responsible way.
- Develop a life-long commitment to personal and professional growth.

ADMISSION REQUIREMENTS

Admission to the Undergraduate Programs of the School of Business is subject to fulfillment of all required admissions policies of the institution. Additional information may be obtained from the Admissions' Office. A general grade point average of 2.00 is required for admission to every program.

Office Administration Laboratory

The laboratory was designed for teaching and for providing students training and experience in the uses of tools such as word processing, spreadsheets, electronic presentations, database, and electronic mail among others. The facilities are equipped with desktop computers, laser jet printer, smart board, scanner, phone, transcription machines and projector.

Office Simulation Laboratory

- The laboratory was designed to help students in the transition from the classroom to the office environment.
- The facilities are equipped with desktop computers, laser jet printer, smart board and projector, scanner, phone, and transcription machines.

Information Systems Laboratory

Each Information Systems laboratory was designed for lecture, demonstration, software development and experimentation.

The laboratories also were designed to provide access to all information systems students with computer facilities and up to date software to plan, design and create information systems. Each laboratory has desktop computers, one laser printer, Internet, one smart board and one projector.

Video Conference Room

Classroom AG 206 is equipped with a videoconference system. This technology provides a wide opportunity to integrate students' experience with professor and peers in our additional locations in Aguadilla, Bayamón and Jayuya as well as other places in and outside Puerto Rico.

Finance Laboratory

Finance Lab provides the opportunity for students to access real-time information via computers with internet access and the necessary software. This helps the students to develop skills for quantitative analysis and interpretation of financial and economic data for decision making. It also allows

students to be exposed to the use of technology for data management, experience that gives them a competitive edge in the job market. Finance lab has individual desktop computers for each student and the professor, LCD screen monitor and projector.

SMEs Development Center

The Small and Medium-sized Enterprises (SMEs) Development Center at the School of Business offers consulting services to local businesses in the startup phase. It also provides business plan development services to students, alumni and other university community members.

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ASSOCIATE DEGREE IN BUSINESS ADMINISTRATION IN OFFICE ADMINISTRATION AND INFORMATION PROCESSING

65 Credits	Credits
General Education Courses	27
Business Core Courses	13
Specialization Courses	25

General Education Courses		27
SPAN 101-102 or SPAN 103-104 or SPAN 105-106	Introductory Spanish Language Course - Basic Level Introductory Spanish Language Course - Intermediate Level Introductory Spanish Language Course - Advanced Level	6
ENGL 101-102 or ENGL 103-104 or ENGL 105-106	Introductory English Language Course-Basic Level Introductory English Language Course - Intermediate Level Introductory English Language Course - Advanced Level	6
SCIE 111	Integrated Sciences I	3
MATH 111	Intermediate Algebra I	3
FYIS 101	First Year Induction Seminar	3
HUMA 101	World Culture	3
SOSC 103	Introduction to Social Sciences – Survey Course	3

Business Core Courses		13
ENMA 101	Introduction to Entrepreneurship Development	3
ECON 123	Introduction to Economics – Compendium	3
MARK 133	Principles of Marketing	3
ACCO 111	Introduction to Accounting I	4

Specialization Courses		25
OFAD 141	Keyboarding	4
OFAD 142	Documents Production I	4
OFAD 206	Documents Production II	4
OFAD 280	Records Management	3
OFAD 282	Office Administration	3
OFAD 307	Microcomputer Business Applications	4
OFAD 380	Office Simulation	4
OFAD 382	Specialized Office Practicum	4

ASSOCIATE DEGREE IN BUSINESS ADMINISTRATION IN MARKETING

71 Credits	Credits
General Education Courses	30
Professional Business Application Courses	9
Business Core Curriculum	14
Specialization Courses	12
Major Electives	6

General Education Courses		30
SPAN 101-102 or SPAN 103-104 or SPAN 105-106	Introductory Spanish Language Course - Basic Level Introductory Spanish Language Course - Intermediate Level Introductory Spanish Language Course - Advanced Level	6
ENGL 101-102 or ENGL 103-104 or ENGL 105-106	Introductory English Language Course-Basic Level Introductory English Language Course - Intermediate Level Introductory English Language Course - Advanced Level	6
SOSC 103	Introduction to the Social Sciences – Survey Course	3
MATH 111	Intermediate Algebra I	3
HUMA 101	World Culture	3
SCIE 111	Integrated Sciences I	3
COIS 101	Introduction to Computers	3
FYIS 101	First Year Induction Seminar	3

Professional Business Application Courses		9
ECON 123	Introduction to Economics Compendium	3
FINA 202	Business Finance	3
ENMA 101	Introduction to Entrepreneurship Development	3

Business Core Courses		14
MANA 210	Administrative Theories	3
ACCO 111-112	Introduction to Accounting I,II	8
MARK 133	Principles of Marketing	3

Specialization Courses		12
MARK 206	Consumer Behavior	3
MARK 235	Retailing	3
MARK 237	Selling Principles	3
MARK 251	Advertising and Promotion	3

Major Electives (The student will select two courses from this list)		6
MARK 302	Sales Management	3
MARK 307	Service Marketing	3
MARK 311	Electronic Marketing	3
MARK 320	Marketing Research	3
MARK 403	Product Marketing	3
MARK 410	International Marketing	3
MARK 420	Marketing Internship	3

ASSOCIATE DEGREE IN BUSINESS ADMINISTRATION MAJOR IN ENTREPRENEURSHIP

69 Credits	Credits
General Education Courses	30
Business Core Courses	20
Specialization Courses	13
Free Electives	6

General Education Courses		30
SPAN 101-102 or SPAN 103-104 or SPAN 105-106	Introductory Spanish Language Course - Basic Level Introductory Spanish Language Course - Intermediate Level Introductory Spanish Language Course - Advanced Level	6
ENGL 101-102 or ENGL 103-104 or ENGL 105-106	Introductory English Language Course-Basic Level Introductory English Language Course - Intermediate Level Introductory English Language Course - Advanced Level	6
SOSC 103	Introduction to the Social Sciences – Survey Course	3
MATH 111	Intermediate Algebra I	3
HUMA 101	World Culture	3
SCIE 111	Integrated Sciences I	3
COIS 101	Introduction to Computers	3
FYIS 101	First Year Induction Seminar	3

Business Core Courses		20
MANA 213	Personnel Management	3
FINA 202	Business Finance	3
ECON 123	Introduction to Economics Compendium	3
MARK 133	Principles of Marketing	3
ACCO 111-112	Introduction to Accounting I,II	8

Specialization Courses		13
ENMA 101	Introduction to Entrepreneurship Development	3
ENMA 200	Entrepreneurship Innovation	3
ENMA 301	Business Financial Planning	4
ENMA 310	Franchises, Strategic Alliances, and Family Businesses	3

Free Electives	6
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BACHELOR IN BUSINESS ADMINISTRATION MAJOR IN ACCOUNTING

124 Credits	Credits
General Education Courses	54
Professional Business Core Courses	36
Major Required Courses	25
Major Electives	6
Free Elective	3

General Education Courses		54
SPAN 101-102 or SPAN 103-104 or SPAN 105-106	Introductory Spanish Language Course - Basic Level Introductory Spanish Language Course - Intermediate Level Introductory Spanish Language Course - Advanced Level	6
SPAN 215	Written Composition	3
ENGL 101-102 or ENGL 103-104 or ENGL 105-106	Introductory English Language Course - Basic Level Introductory English Language Course - Intermediate Level Introductory English Language Course - Advanced Level	6
ENGL 212	Second Year Business English Course - Basic Level	3
ENGL 350	Conversational English	3
SOSC 101-102 or SOSC 103 and PSYC 123	Introduction to the Social Sciences I, II Introduction to the Social Sciences – Survey Course General Psychology – Survey Course	6
HUMA 101-102	World Cultures	6
MATH 112	Intermediate Algebra II	3
QUME 250	Quantitative Methods I	3
SCIE 111-112	Integrated Sciences I,II	6
COIS 101	Introduction to Computers	3
FYIS 101	First Year Induction Seminar	3
HIST 101 or HIST 253 or HIST 273	Introduction to the Study of History History of Puerto Rico – Compendium History of the United States – Compendium	3

Professional Business Core Courses		36
ACCO 111 – 112	Introduction to Accounting I,II	8
STAT 201	Introduction to Business Statistics I	3
ECON 123	Introduction to Economics Compendium	3
ECON 325	Introduction to International Business	3

Professional Business Core Courses		36
ENMA 101	Introduction to Entrepreneurship Development	3
MANA 210	Administrative Theories	3
MANA 131 or MANA 213	Human Relations in Business (for Management and Office Administration Majors) Personnel Management (for Entrepreneurship Majors) or Other Management Course (for other Majors)	3
BUSI 204	Business Law	4
FINA 202	Business Finance	3
MARK 133	Principles of Marketing	3

Major Required Courses		25
ACCO 201-202	Intermediate Accounting I,II	8
ACCO 203	Cost Accounting	4
ACCO 205 or ACCO 320	Taxes of Puerto Rico Federal Income Tax	3
ACCO 304	Auditing	3
ACCO 308	Contemporary Accounting	3
ACCO 450	Advanced Accounting	4

Major Electives		6
ACCO 250	Computerized Accounting	3
ACCO 295	Managerial Accounting	3
ACCO 297	Funds and Government Accounting	3
ACCO 306	Accounting Information Systems	3
ACCO 402	Advanced Cost Accounting	3
FINA 301	Financial Statements Analysis	3

Free Electives		3
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BACHELOR IN BUSINESS ADMINISTRATION MAJOR IN MANAGEMENT

123 Credits	Credits
General Education Courses	54
Professional Business Core Courses	36
Major Required Courses	21
Major Electives	9
Free Elective	3

General Education Courses		54
SPAN 101-102 or SPAN 103-104 or SPAN 105-106	Introductory Spanish Language Course - Basic Level Introductory Spanish Language Course - Intermediate Level Introductory Spanish Language Course - Advanced Level	6
SPAN 215	Written Composition	3
ENGL 101-102 or ENGL 103-104 or ENGL 105-106	Introductory English Language Course - Basic Level Introductory English Language Course - Intermediate Level Introductory English Language Course - Advanced Level	6
ENGL 212	Second Year Business English Course - Basic Level	3
ENGL 350	Conversational English	3
SOSC 101-102 or SOSC 103 and PSYC 123	Introduction to the Social Sciences I, II Introduction to the Social Sciences – Survey Course General Psychology – Survey Course	6
HUMA 101-102	World Cultures	6
MATH 112	Intermediate Algebra II	3
QUME 250	Quantitative Methods I	3
SCIE 111-112	Integrated Sciences I,II	6
COIS 101	Introduction to Computers	3
FYIS 101	First Year Induction Seminar	3
HIST 101 or HIST 253 or HIST 273	Introduction to the Study of History History of Puerto Rico – Compendium History of the United States – Compendium	3

Professional Business Core Courses		36
ACCO 111-112	Introduction to Accounting I,II	8
STAT 201	Introduction to Business Statistics I	3
ECON 123	Introduction to Economics Compendium	3
ECON 325	Introduction to International Business	3

Professional Business Core Courses		36
ENMA 101	Introduction to Entrepreneurship Development	3
MANA 210	Administrative Theories	3
MANA 131 or MANA 213	Human Relations in Business (for Management and Office Administration Majors) Personnel Management (for Entrepreneurship Majors) or Other Management Course (for other Majors)	3
BUSI 204	Business Law	4
FINA 202	Business Finance	3
MARK 133	Principles of Marketing	3

Major Required Courses		21
FINA 240	Risk and Insurance	3
MANA 125	Business Ethics	3
MANA 213	Personnel Management	3
MANA 230	Organizational Behavior	3
MANA 340	Production and Operations Management	3
MANA 404	Labor Relations	3
MANA 401	Seminar in Strategic Management	3

Major Electives		9/10
ACCO 295	Managerial Accounting	3
MANA 350	Business and Society	3
ENMA 200	Entrepreneurship Innovation	3
ENMA 301	Business Financial Planning	4
ENMA 310	Franchises, Strategic Alliances, and Family Businesses	3
FINA 308	Real Estate and Property Administration	3
OFAD 141	Keyboarding	4

Free Electives		3
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BACHELOR IN BUSINESS ADMINISTRATION MAJOR IN MARKETING

123 Credits	Credits
General Education Courses	54
Professional Business Core Courses	36
Major Required Courses	21
Major Electives	9
Free Elective	3

General Education Courses		54
SPAN 101-102 or SPAN 103-104 or SPAN 105-106	Introductory Spanish Language Course – Basic Level Introductory Spanish Language Course – Intermediate Level Introductory Spanish Language Course – Advanced Level	6
SPAN 215	Written Composition	3
ENGL 101-102 or ENGL 103-104 or ENGL 105-106	Introductory English Language Course – Basic Level Introductory English Language Course – Intermediate Level Introductory English Language Course – Advanced Level	6
ENGL 212	Second Year Business English Course - Basic Level	3
ENGL 350	Conversational English	3
SOSC 101-102 or SOSC 103 and PSYC 123	Introduction to the Social Sciences I, II Introduction to the Social Sciences – Survey Course General Psychology – Survey Course	6
HUMA 101-102	World Cultures	6
MATH 112	Intermediate Algebra II	3
QUME 250	Quantitative Methods I	3
SCIE 111-112	Integrated Sciences I,II	6
COIS 101	Introduction to Computers	3
FYIS 101	First Year Induction Seminar	3
HIST 101	Introduction to the Study of History	3

Professional Business Core Courses		36
ACCO 111-112	Introduction to Accounting I, II	8
STAT 201	Introduction to Business Statistics I	3
ECON 123	Introduction to Economics Compendium	3
ECON 325	Introduction to International Business	3
ENMA 101	Introduction to Entrepreneurship Development	3

Professional Business Core Courses		36
MANA 210	Administrative Theories	3
MANA 131 or MANA 213	Human Relations in Business (for Management and Office Administration Majors) Personnel Management (for Entrepreneurship Majors) or Other Management Course (for other Majors)	3
BUSI 204	Business Law	4
FINA 202	Business Finance	3
MARK 133	Principles of Marketing	3

Major Required Courses		21
MARK 235	Retailing	3
MARK 206	Consumer Behavior	3
MARK 237	Selling Principles	3
MARK 251	Advertising and Promotion	3
MARK 307	Services Marketing	3
MARK 320	Marketing Research	3
MARK 410	International Marketing	3

Major Electives		9
MARK 302	Sales Management	3
MARK 311	Electronic Marketing	3
MARK 403	Product Marketing	3
MARK 405	Public Relations in Business	3
MARK 420	Marketing Internship	3

Free Electives	3
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BACHELOR IN BUSINESS ADMINISTRATION MAJOR IN FINANCE-ECONOMICS

120 Credits	Credits
General Education Courses	54
Professional Business Core Courses	36
Major Required Courses	21
Major Electives	6
Free Elective	3

General Education Courses		54
SPAN 101-102 or SPAN 103-104 or SPAN 105-106	Introductory Spanish Language Course – Basic Level Introductory Spanish Language Course – Intermediate Level Introductory Spanish Language Course – Advanced Level	6
SPAN 215	Written Composition	3
ENGL 101-102 or ENGL 103-104 or ENGL 105-106	Introductory English Language Course – Basic Level Introductory English Language Course – Intermediate Level Introductory English Language Course – Advanced Level	6
ENGL 212	Second Year Business English Course - Basic Level	3
ENGL 350	Conversational English	3
SOSC 101-102 or SOSC 103 and PSYC 123	Introduction to the Social Sciences I, II Introduction to the Social Sciences – Survey Course General Psychology – Survey Course	6
HUMA 101-102	World Cultures	6
MATH 112	Intermediate Algebra II	3
QUME 250	Quantitative Methods I	3
SCIE 111-112	Integrated Sciences I,II	6
COIS 101	Introduction to Computers	3
FYIS 101	First Year Induction Seminar	3
HIST 101 or HIST 253 or HIST 273	Introduction to the Study of History History of Puerto Rico – Compendium History of the United States – Compendium	3

Professional Business Core Courses		36
ACCO 111-112	Introduction to Accounting I, II	8
STAT 201	Introduction to Business Statistics I	3
ECON 123	Introduction to Economics Compendium	3
ECON 325	Introduction to International Business	3

Professional Business Core Courses		36
ENMA 101	Introduction to Entrepreneurship Development	3
MANA 210	Administrative Theories	3
MANA 131 or MANA 213	Human Relations in Business (for Management and Office Administration Majors) Personnel Management (for Entrepreneurship Majors) or Other Management Course (for other Majors)	3
BUSI 204	Business Law	4
FINA 202	Business Finance	3
MARK 133	Principles of Marketing	3

Major Required Courses		21
FINA 204	Money and Banking	3
FINA 305	Public Finance	3
FINA 401	Investments	3
ECON 253	Economic Development of Puerto Rico	3
ECON 400	Managerial Economics	3
ECON 401	Macroeconomics Theory	3
ECON 403	Environmental Economics	3

Major Electives (Credits 6)		6
ECON 363	Global Economic Trends	3
ECON 420	International Economics and Finance	3
FINA 240	Risk and Insurance	3
FINA 301	Financial Statements Analysis	3
FINA 308	Real Estate and Property Administration	3
FINA 312	Financing Institutions	3
FINA 320	Banking Policies Administration	3
FINA 200	Personal Financial Planning	3

Free Electives		3
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BACHELOR IN BUSINESS ADMINISTRATION MAJOR IN INFORMATION SYSTEM

125 Credits	Credits
General Education Courses	45
Professional Business Core Courses	39
Major Required Courses	35
Major Electives	6

General Education Courses		45
SPAN 101-102 or SPAN 103-104 or SPAN 105-106	Introductory Spanish Language Course – Basic Level Introductory Spanish Language Course – Intermediate Level Introductory Spanish Language Course – Advanced Level	6
ENGL 101-102 or ENGL 103-104 or ENGL 105-106	Introductory English Language Course – Basic Level Introductory English Language Course – Intermediate Level Introductory English Language Course – Advanced Level	6
SOSC 101-102 or SOSC 103 and PSYC 123	Introduction to the Social Sciences I, II Introduction to the Social Sciences – Survey Course General Psychology – Survey Course	6
HUMA 101-102	World Cultures	6
MATH 112	Intermediate Algebra II	3
QUME 250	Quantitative Methods I	3
SCIE 111-112	Integrated Sciences I, II	6
COIS 101	Introduction to Computers	3
FYIS 101	First Year Induction Seminar	3
HIST 101 or HIST 253 or HIST 273	Introduction to the Study of History History of Puerto Rico – Compendium History of the United States – Compendium	3

Professional Business Core Courses		39
MANA 131 or MANA 210	Human Relations in Business (for Management and Office Administration Majors) or Administrative Theories	3
ENMA 101	Introduction to Entrepreneurship Development	3
ACCO 111 – 112	Introduction to Accounting I, II	8
STAT 201	Introduction to Business Statistics I	3
MARK 133	Principles of Marketing	3
MANA 202	Project Management	3
ECON 123	Introduction to Economics Compendium	3

Professional Business Core Courses		39
BUSI 204	Business Law	4
FINA 202	Business Finance	3
ECON 325	Introduction to International Business	3
COIS 221	Data Analysis Tools	3

Major Required Courses		35
COIS 112	Information Systems Concepts	3
COIS 211	Introduction to Programming	4
COIS 218	Application Development	4
COIS 304	Software and Hardware Concepts	3
COIS 412	Network Technology	3
COIS 309	Web Pages I	3
COIS 310	Web Pages II	3
COIS 217	Database	3
COIS 320	Solution Architecture	3
COIS 313	Mobile Applications	3
COIS 427 or COIS 428	Practice in Information Systems or Information Systems Project	3

Major Electives (Credits 6)		6
COIS 408	Topics in Information Systems	3
COIS 311	Software Validation and Verification	3
OFAD 141	Keyboarding	4

BACHELOR IN BUSINESS ADMINISTRATION MAJOR IN OFFICE ADMINISTRATION AND INFORMATION PROCESSING

130 Credits	Credits
General Education Courses	51
Professional Business Core Courses	36
Major Required Courses	34
Major Electives	6
Free Elective	3

General Education Courses		51
SPAN 101-102 or SPAN 103-104 or SPAN 105-106	Introductory Spanish Language Course – Basic Level Introductory Spanish Language Course – Intermediate Level Introductory Spanish Language Course – Advanced Level	6
ENGL 101-102 or ENGL 103-104 or ENGL 105-106	Introductory English Language Course – Basic Level Introductory English Language Course – Intermediate Level Introductory English Language Course – Advanced Level	6
ENGL 212	Second Year Business English Course - Basic Level	3
ENGL 350	Conversational English	3
SOSC 101-102 or SOSC 103 and PSYC 123	Introduction to the Social Sciences I, II Introduction to the Social Sciences – Survey Course General Psychology – Survey Course	6
HUMA 101-102	World Cultures	6
MATH 112	Intermediate Algebra II	3
QUME 250	Quantitative Methods I	3
SCIE 111-112	Integrated Sciences I, II	6
COIS 101	Introduction to Computers	3
FYIS 101	First Year Induction Seminar	3
HIST 101 or HIST 253 or HIST 273	Introduction to the Study of History History of Puerto Rico – Compendium History of the United States – Compendium	3

Professional Business Core Courses		36
ACCO 111 – 112	Introduction to Accounting I, II	8
STAT 201	Introduction to Business Statistics I	3
ECON 123	Introduction to Economics Compendium	3
ECON 325	Introduction to International Business	3
ENMA 101	Introduction to Entrepreneurship Development	3
MANA 210	Administrative Theories	3
MANA 131 or MANA 213	Human Relations in Business (for Management and Office Administration Majors) Personnel Management (for Entrepreneurship Majors) or Other Management Course (for other Majors)	3
BUSI 204	Business Law	4
FINA 202	Business Finance	3
MARK 133	Principles of Marketing	3

Major Required Courses		34
OFAD 141	Keyboarding	4
OFAD 142	Documents Production I	4
OFAD 206	Documents Production II	4
OFAD 282	Office Administration	3
OFAD 285	Specialized Machine Transcription	4
OFAD 307	Microcomputer Business Applications	4
OFAD 380	Office Simulation	4
OFAD 382	Specialized Office Practicum	4
OFAD 250	Commercial Writing Direct to The C omputer	3

Major Electives (Credits 6)		6
OFAD 215	Electronic Record Management for Medical Offices	3
OFAD 225	Administrative Procedures for Medical Offices	3
OFAD 240	Spanish Alphabetic Speedwriting	3
OFAD 280	Records Administration	3
OFAD 340	English Alphabetic Speedwriting	3

Free Electives	3

BACHELOR IN BUSINESS ADMINISTRATION MAJOR IN ENTREPRENEURSHIP

121 Credits	Credits
General Education Courses	54
Professional Business Core Courses	36
Major Required Courses	19
Special Interest Electives	12

General Education Courses		54
SPAN 101-102 or SPAN 103-104 or SPAN 105-106	Introductory Spanish Language Course – Basic Level Introductory Spanish Language Course – Intermediate Level Introductory Spanish Language Course – Advanced Level	6
SPAN 215	Written Composition	3
ENGL 101-102 or ENGL 103-104 or ENGL 105-106	Introductory English Language Course – Basic Level Introductory English Language Course – Intermediate Level Introductory English Language Course – Advanced Level	6
ENGL 212	Second Year Business English Course - Basic Level	3
ENGL 350	Conversational English	3
SOSC 101-102 or SOSC 103 and PSYC 123	Introduction to the Social Sciences I, II Introduction to the Social Sciences – Survey Course General Psychology – Survey Course	6
HUMA 101-102	World Cultures	6
MATH 112	Intermediate Algebra II	3
QUME 250	Quantitative Methods I	3
SCIE 111-112	Integrated Sciences I, II	6
COIS 101	Introduction to Computers	3
FYIS 101	First Year Induction Seminar	3
HIST 101	Introduction to the Study of History	3

Professional Business Core Courses		36
ACCO 111 – 112	Introduction to Accounting I, II	8
STAT 201	Introduction to Business Statistics I	3
ECON 123	Introduction to Economics Compendium	3
ECON 325	Introduction to International Business	3
ENMA 101	Introduction to Entrepreneurship Development	3
MANA 210	Administrative Theories	3
MANA 131 or MANA 213	Human Relations in Business (for Management and Office Administration Majors) Personnel Management (for Entrepreneurship Majors) or Other Management Course (for other Majors)	3
BUSI 204	Business Law	4
FINA 202	Business Finance	3
MARK 133	Principles of Marketing	3

Major Required Courses		19
ENMA 200	Entrepreneurship Innovation	3
ENMA 301	Business Financial Planning	4
ENMA 310	Franchises, Strategic Alliances, and Family Businesses	3
MARK 311	Electronic Marketing	3
ENMA 407	Legal, Tax and Environmental Responsibility	3
ENMA 408	Entrepreneurship Seminar	3

Bachelor in Business Administration and Master Degree in Accounting (MACC)

The School of Business offers an innovative combined program of Bachelor in Business Administration and Master's Degree in Accounting, which consists of 150 credits (120 undergraduate and 30 graduate), distributed across five years of study (ten semesters). It is oriented toward students whose academic goals are pursuing graduate studies in Accounting, and/or applying to obtain the Certified Public Accounting license, and/or developing an Accounting career in private enterprise.

Besides the needed specialization skills and knowledge in accounting, this curriculum allows for the development of good communication and intellectual skills to record, measure, and analyze data. Students will develop problem-solving techniques in order to develop an expanded view of the fast-changing business world in which they will serve.

General Admission Requirements

1. First-Year Students must:
 - a. Have a High School Diploma or its equivalent.
 - b. Submit two official transcripts of High School credits.
 - c. Have a minimum 2.5 GPA
 - d. Submit the scores results of the College Entrance Examination Board Test and take the Assessment Test of The Center for Diagnosis and Placement (CDU) of UMET.
 - e. Pay a non-refundable application fee of \$15.00.
2. Transfer students from other universities must have:

- a. A 2.50 GPA on their college transcript.
 - b. Approved with a minimum grade of B the following college level courses: Algebra, Spanish and English.
3. Students from UMET who apply for reclassification into this program must meet the same requirements as transfer students. All courses accepted in the reclassification process must have been approved with a minimum of C.

Workshop Description

In addition to the regular curriculum, students are required to attend six workshops during their course of studies. The workshops are designed to broaden and enhance students' knowledge in areas other than their area of specialization. The workshops will be at least three hours each.

The community will be advised of the workshops programmed for each semester, and the workshops will be opened to participants who are not registered in the MBA program. The workshops are required for graduation.

Graduation Requirements

1. Required graduate courses must be completed with a GPA no less than 3.0;
2. The cumulative GPA must be of 2.50 or more;
3. Evidence of attendance to six workshops must be submitted;
4. The candidacy application form must be completed;
5. The student must not have debts with the University.

BACHELOR IN BUSINESS ADMINISTRATION AND MASTER DEGREE IN ACCOUNTING (MACC)

150 Credits	Credits
Undergraduate Courses	120
General Education Courses	54
Professional Business Core Courses	39
Major Required Courses	24
Free Elective	3
Graduate Courses	30
Specialization Courses	21
Core Courses	6
Elective	3
Total Credits	150

General Education Courses		54
SPAN 101-102 or SPAN 103-104 or SPAN 105-106	Introductory Spanish Language Course - Basic Level Introductory Spanish Language Course - Intermediate Level Introductory Spanish Language Course - Advanced Level	6
ENGL 101-102 or ENGL 103-104 or ENGL 105-106	Introductory English Language Course - Basic Level Introductory English Language Course - Intermediate Level Introductory English Language Course - Advanced Level	6
ENGL 212 or 216 or 207 or 215	Second Year Business English Course - Basic Level	6
ENGL 350 or ENG 361	Conversational English or Technical Writing	6
SOSC 101-102 or SOSC 103 and PSYC 123	Introduction to the Study of Social Sciences Introduction to the Study of Social Sciences - Survey Course General Psychology – Survey Course	6
HUMA 101-102	World Cultures	6
QUME 250	Quantitative Methods I	3
QUME 251	Quantitative Methods II	3
SCIE 111-112	Integrated Sciences I, II	
COIS 101	Introduction to Computers	3
FYIS 101	First Year Induction Seminar	3
HIST 101	Introduction to the Study of History	3

Professional Business Core Courses		39
ACCO 111 – 112	Introduction to Accounting I, II	8
STAT 201	Introduction to Business Statistics I	3
STAT 301	Basic Business Statistics II	3
ECON 123	Introduction to Economics Compendium	3
ECON 325	Introduction to International Business	3
ENMA 101	Introduction to Entrepreneurship Development	3
MANA 340	Operation and Production Management	3
MANA 230	Organizational Behavior	3
BUSI 204	Business Law	4
FINA 202	Business Finance	3
MARK 133	Principles of Marketing	3

Major Required Courses		24
ACCO 201-202	Intermediate Accounting I, II	8
ACCO 203	Cost Accounting	4
ACCO 205 or ACCO 320	Income Taxes in Puerto Rico or Federal Taxes	3
ACCO 250	Computerized Accounting	3
ACCO 304	Auditing	3
ACCO 308	Contemporary Accounting	3

Graduate Specialization Courses		21
ACCO 506	Advanced Cost Accounting	3
ACCO 605	International Accounting	3
ACCO 610	Advanced Financial Accounting and Reporting I	3
ACCO 620	Government and Non-profit Accounting	3
ACCO 707	Federal Income Tax	3
ACCO 710	Advanced Auditing	3
ACCO 721	Accounting Seminar	3

Graduate Core Courses		6
BUSI 600	Federal Business Law	3
MANA 600	Business Policy and Ethics	3

Elective Graduate Course		3
The student will select any graduate specialization level course from any other business mayor that has no Requisites or an additional course from his/her specialization, as a free elective.		

Have attended at least 6 MBA workshops that are required for graduation

COURSES DESCRIPTIONS

ACCOUNTING

ACCO 111

Introduction to Accounting I

Four Credits

Fundamentals of accounting. Analyzing and recording business transactions, the accounting cycle and preparation of Financial Statements. Includes accounting for cash, accounts receivable and inventories.

ACCO 112

Introduction to Accounting II

Four Credits

Tangible and intangible assets, current liabilities and the payroll system, application of accounting principles to partnerships and corporations, investments and bonds.

Requisite: ACCO 111

ACCO 201

Intermediate Accounting I

Four Credits

The accounting process and a review of the accounting cycle, the development of accounting theory and practice, preparation of financial statements including Statement of Cash Flows. Problems related to the control, valuation, presentation, and recording of cash; accounts receivable. Cost flow and special valuation methods of inventories. Requisites: ACCO 111, ACCO 112

ACCO 202

Intermediate Accounting II

Four Credits

Control, evaluation, income determination, records and financial statement presentation of plant and intangible assets, short and long-term investments, current and long-term liabilities. Includes accounting for corporations' invested capital and retained earnings. Requisite: ACCO 201

ACCO 203

Cost Accounting

Four Credits

Fundamentals and basic concepts of cost accounting systems for cost accumulation, job order, process cost, joint costs and standard cost accounting. Includes the nature and quantitative aspects of departmental overhead and the relationship of accounting systems to decision making. Requisites: ACCO 201, ACCO 202

ACCO 205**Taxes in Puerto Rico****Three Credits**

History and purpose of income taxation, concepts and methods for determining taxable income of individuals and corporate enterprises, and the preparation of income tax returns according to the Internal Revenue Code of Puerto Rico, as amended. One semester, three hours weekly. Requisites: ACCO 112

ACCO 250**Computerized Accounting****Three Credits**

The use of accounting software to record transactions and business data, in order to produce and print ledgers, financial statements and other reports. Reinforcement of the generally accepted accounting principles and the use of spreadsheet applications. Requires laboratory. Requisites: ACCO 112, COIS 101

ACCO 295**Managerial Accounting****Three Credits**

Development and use of accounting information in the managerial functions of planning, control and decision making. Includes funds flow analysis, cost-volume profit relationship, and the preparation of the Master Budget and standard costing. Analysis of short-term decisions and the capital budget. Requisite: ACCO 112

ACCO 297**Funds and Government Accounting****Three Credits**

The accounting principles related to the control, record and the statements required by the government and other non-profit organizations. Includes applications of these principles to municipal and state governments, budgets and funds. Requisite: ACCO 112

ACCO 304**Auditing****Three Credits**

Generally accepted auditing standards (GAAS). Includes auditors' reports, internal control, the ethical and legal responsibilities of auditors, evidence and working papers, auditing programs, sampling techniques and the internal control of accounting systems. Requisite: ACCO 202

ACCO 306**Accounting Information Systems****Three Credits**

Principles, concepts, methods, and mechanisms used in the design, administration and implementation of accounting information systems. Design of journals, general ledgers, subsidiary ledgers and business documents. Includes accounting system design using computers. Introduction to auditing and controls of accounting information systems. Requisite: ACCO 112

ACCO 308**Contemporary Accounting****Three Credits**

Analysis and interpretation of Generally Accepted Accounting Principles (GAAP). The conceptual framework that provides the basis for the preparation and presentation of financial statements. Development and current status of financial accounting theories. Analysis and discussion of the Accounting Standards Codifications (ASC) and the Accounting Standards Updates (ASU) issued by the Financial Accounting Standards Board Codifications (FASB). One semester, three hours weekly. Requisite: ACCO 202

ACCO 320**Federal Income Tax****Three Credits**

Study of the historical development and purpose of the federal income tax system, basic tax concepts, types of income, determination of taxable income, and preparation of federal income tax return for individuals, partnerships and corporations. Requisite: ACCO 112

ACCO 402**Advanced Cost Accounting****Three Credits**

Relationship between cost accounting and cost control, estimated and predetermined costs and advanced problems in job order costs, process costs, and joint costs and by-products costs. Requisite: ACCO 203

ACCO 450**Advanced Accounting****Three Credits**

Generally accepted accounting principles as applied to business combinations, Investment in Common Stocks, partnerships, and consolidated financial statements. Accounting principles applicable to government funds. Control, recording process, and reporting of financial information of governmental units. Requisites: ACCO 202, ACCO 308

Graduate level courses descriptions for the MACC Program are published in UMET's Graduate Catalog.

BUSI 204**Business Law****Four Credits**

Introduction to our legal system. History of law. The Constitution of USA and the Constitution of Puerto Rico. Origin and development of business law. Sources of legal obligations between parties. Civil, business, and criminal cases. Includes the study of civil and business contracts, its formation and validity. Warranty contracts, such as: mortgages, bonds, guarantees, pound shops contracts, and conditional sales. Business organizations, such as sole proprietorships, partnerships, and corporations. Introduction to negotiable instruments', bankruptcy, patents, and copy rights laws. Applicable laws on contracts performed via Internet, the long arm statutes, the digital signature and obligations between parties. Proceedings of federal cases to sue of citizens of other states.

INFORMATION SYSTEMS**COIS 101****Introduction to Computers****Three Credits**

This course develops in the student levels of productivity in the use of computers, necessary to perform effectively in their personal and work environment. Throughout the course, the student will acquire the competencies of a beginner level user, while being exposed to the most recent technological developments. The student will learn desktop applications used to create documents, spreadsheets, audiovisual presentations, electronic mail, and internet searches. Requires laboratory.

COIS 112**Information Systems Concepts****Three Credits**

Introduction to system concepts, information technology and DBMS software. It covers how information is used in organizations and how information technology improves the operations of the organization. Requires laboratory. Requisite: COIS 101

COIS 211**Introduction to Programming****Four Credits**

This course develops the basic skills needed to produce simple application programs. It includes program design, coding and documentation. The student will learn computer programming concepts and the use of a programming language. Requires laboratory. Requisite: COIS 112

COIS 217**Database****Three Credits**

This course develops intermediate level skills to create, manipulate, store and manage objects in a database. It requires laboratory. Requisite: COIS 112

COIS 218**Application Development****Three Credits**

This course introduces students to object-oriented programming. Students will develop intermediate level applications using existing programming tools. It requires laboratory. Requisite: COIS 211

COIS 221**Data Analysis Tools****Three Credits**

This course is designed to develop intermediate - advanced skills in the use of spreadsheets for management and data analysis. A spreadsheet lets you work with data tables, graphics, databases, macros, and other advanced applications. It requires laboratory. Requisite: COIS 101

COIS 304**Software and Hardware Concepts****Three Credits**

A survey of technical topics related to computer systems with emphasis on the relationships between hardware architecture, system software and applications software. Explores the architecture of processors and storage systems and its implications for systems software design are covered including their impact on the development of application programs in the business environment. Requires laboratory. Requisite: COIS 112

COIS 309**Web Pages I****Three Credits**

This course develops in the student the skills needed to design, build, deploy and maintain web pages. Includes experiences with web pages design tools. It requires laboratory. Requisite: COIS 218

COIS 310**Web Pages II****Three Credits**

This course is a continuation of COIS 309 with emphasis on interactivity between the web page and its users. It includes topics, such as: database management and transaction processing. It requires laboratory. Requisite: COIS 309

COIS 311 Software Validation and Verification**Three Credits**

This course trains students in different methodologies and technologies for the validation and verification of computer programs. Program validation and verification ensures that the results are as expected and therefore have quality. It requires laboratory. Requisite: COIS 218

COIS 313**Mobile Applications****Three Credits**

This course provides students with the fundamentals skills to develop mobile applications. It takes into consideration specific aspects such as architecture, design, techniques, methodologies and distribution of mobile applications. It requires laboratory. Requisite: COIS 218

COIS 320**Solutions Architecture****Three Credits**

This course provides the student with the basic skills necessary for the analysis, design and development of information systems. The students will learn how to develop logical and physical models. It includes database modeling, Structured Query Language (SQL), and data base administration. It also includes basic concepts on project management. Requires laboratory. Requisite: COIS 217

COIS 408**Topics in Information Systems****Three Credits**

Current topics of interest in the area of computer information systems. Requires laboratory. Requisite: Depends on the topic

COIS 412**Network Technology****Three Credits**

Provides the background necessary to understand technology for local area networks (LANs), wide area networks (WANs), and the Internet. Requires laboratory. Requisite: COIS 304

COIS 427**Practice in Information Systems****Three Credits**

The student will have the opportunity to put into practice the concepts learned in previous information systems courses. The student will be supervised by a professor and by the industry student supervisor. Requisite: COIS 310, COIS 320

COIS 428 Information Systems Project**Three Credits**

The student will have the opportunity to put into practice the concepts learned in previous information systems courses by developing an information systems project. The student will be supervised by the professor. Requisite: COIS 310, COIS 320

ECONOMICS**ECON 123****Introduction to Economics Compendium****Three Credits**

Provides the student with the theoretic knowledge and applied basis of Economics. The student will learn the essential principles and theories for the micro and macroeconomic analysis. Time is devoted to develop the skills needed to identify and solve the problems encountered by the public and private sectors. Requisites: SOSC 103 or SOSC 101-102

ECON 253**Economic Development of Puerto Rico****Three Credits**

Characteristics and trends in Puerto Rico's economic history, economic structure, agriculture, banking, transportation, communications, industrial development, public policy toward business, and international trade. Emphasis on contemporary ideas, issues and policies is addressed. Requisite: ECON 123

ECON 325**Introduction to International Business****Three Credits**

Systems and their effect on the commercial behavior of countries. Emphasizes the relationships between business enterprises, government, and the financial sectors and their involvement in international business activities. Corporate policies and strategies in the global operations. Requisite: ECON 123

ECON 363**Global Economic Trends****Three Credits**

Study of, the economic, social, population, political, cultural and geographic environment that affects de economic development of the nations and regions of the world. Special emphasis on modern economic trends amid diversity. Requisite: ECON 123

ECON 400**Managerial Economics****Three Credits**

Analysis of modern theory of the firm and its applications: consumer behavior, price, production, costs, markets and economic efficiency. Allocation of the productive resources and the equilibrium theory. Requisite: ECON 123

ECON 401**Macroeconomic Theory****Three Credits**

Determination of national income, price systems, employment, fiscal and monetary policies in economic growth, analysis of expense, savings, investment and money. Requisite: ECON 123

ECON 403**Environmental Economics****Three Credits**

Problems of the environment: pollution, government functions and market techniques to stop pollution. Economic analysis of the costs and benefits of environmental quality. Analysis of government control measures and international efforts to protect the environment. Requisite: ECON 123

ECON 420**International Economics and Finance****Three Credits**

The economy and international trade, the international monetary system, balance of payments, trade barriers, commercial policies and international financial institutions. Requisites: ECON 325, ECON 401

FINANCE**FINA 200****Personal Financial Planning****Three Credits**

Process of developing and implementing an integrated comprehensive plan to meet the financial goals of the individual and his family. Achievement of financial stability during the productive years, prepare financially for retirement and estate planning.

FINA 202**Business Finance****Three Credits**

Introduction to basic financial theories and techniques. Studies of the various responsibilities of a finance manager from determining the best sources of funds for a company to the optimal decision of assets on which capital is invested. Use and interpretation of financial analysis, budget development, capital cost,

short-term financing in the need to balance the components of profit and risk. Requisites: ACCO 111-112

FINA 204

Money and Banking

Three Credits

The nature of money, the development and functions of financial institutions, and the structure and operations of the U.S. Central Banking System and its relationship with monetary policy and international monetary markets. It includes analysis of the impact of monetary, fiscal and income policies on our economy. Requisites: ECON 122 or ECON 123

FINA 240

Risk and Insurance

Three Credits

Types of risks and methods of handling risks by insurance companies. Detailed study of insurable risks, risk management, different types of underwriters, factors to be considered in the selection of an insurance company, functions and organization of the insurance companies, and legal principles applicable to the insurance contract. Requisite: FINA 202

FINA 301

Financial Statement Analysis

Three Credits

Study of the different methods and techniques used in the analysis of the basic financial statements. Analysis of the different financial statements used in business.

Requisites: FINA 202

FINA 305

Public Finance

Three Credits

Income sources and trends in government expenses, their effects on total consumption, savings and investment, fiscal policy, incidence and transfer of different types of taxes, and problems inherent in the different state and local taxes. Requisites: ECON 122 or ECON 123

FINA 308

Real Estate and Property Administration

Three Credits

Principles and practices of acquisition, sale and administration of real estate. Presentations cover brokerage, financing, mortgages and appraisal. Requisite: FINA 202

FINA 312**Financing Institutions****Three Credits**

Functions of the most important financing institutions in our economic system. Emphasis is on the management of banking institutions, savings and loan associations, insurance and investment companies, cooperatives and mutual funds. Requisite: FINA 202

FINA 320**Banking Policies Administration****Three Credits**

Analysis of the variables that affect commercial banking, structure, operations and profit. Includes the balance sheet and its relation to other operational variables, strategies to maximize profit and control risk, liquidity and evaluation of capital structure. Requisite: FINA 202

FINA 401**Investments****Three Credits**

This course includes the study of business cycles and their effects on assets financial statements. We also look at the fundamentals of investment, uncertainty, speculation, risk, given value and diversification. Will include the market knowledge, information sources, liquidity, portfolio investment, and interpretation of financial information. Requisites: ECON 123, FINA 202.

ENTREPRENEURSHIP**ENMA 101****Introduction to Entrepreneurial Development****Three Credits**

This course offers students a basic understanding and overview of the business world and the entrepreneurial. This includes topics related to writing a business plan, business ethics, management, marketing, finance, accounting and the legal aspects of commercial operations.

ENMA 200**Entrepreneurial Innovation****Three Credits**

This course is designed to develop creativity and innovation of business ideas. Emphasis is given to the development of such ideas, creation, form, and their protection. The course stimulates and challenges the student to develop new business types, to know different existing business types, to make decisions, and risk taking. The course also looks for the development of the entrepreneurial character, and how he can turn his idea into a real business. Requisites: ENMA 101

ENMA 301**Business Financial Planning****Four Credits**

In this course, different financing alternatives available for public and private enterprises are analyzed. The financial plan components for different business types are examined in accordance with the characteristics and development stages of the enterprises. Computer programs are integrated to facilitate the preparation of the financial plan, financial statements, and financial forecasts. Requisites: ENMA 101, COIS 101, FINA 202

ENMA 310**Franchises, Strategic Alliances, and Family Businesses****Three Credits**

Family business, franchises and strategic alliances analysis or their particular characteristics, definitions and nature. Analysis of the advantages and disadvantages of them. Manage business relationships, conflicts, and shared decision making. Requisites: ENMA 101, ECON 325

ENMA 407**Legal, Tax and Environmental Responsibility****Three Credits**

The study of the legal issues, taxes, and environmental issues that influence the business activity. Study of the content, its application, and implications of the ethical, social and economic regulations, including municipal, state, and federal laws. Requisites: ENMA 101, ACCO 112, BUSI 204

ENMA 408**Entrepreneurial Seminar****Three Credits**

The knowledge acquired is tested in real business situations. The entrepreneur project is worked independently under the supervision of a professor. Requisites: 15 credits in the major are required.

MANAGEMENT**MANA 125****Business Ethics****Three Credits**

Concepts related to moral aspects of human behavior within the whole social system, and particularly in business settings or in groups where the individual operates. Requisites: MANA 101 or ENMA 101

MANA 131**Human Relations in Business****Three Credits**

Concepts dealing with the interaction and interpersonal relations of individuals and groups within business organizations. It includes an analysis of leadership and group behavior.

MANA 202**Project Management****Three Credits**

This course introduces the student the basic principles, guidance, and technologies for the practice of project management, from the standard proposed by the Project Management Institute (PMI) to the ISO21500 standard. Study of principles, guidelines, technologies, and methodologies to use in the organization, planning, execution, monitoring, controlling, and closing of an information technology implementation project. Provides the background needed to comply with legal and operational requirements that mandates for a control structure and risk management, as well as quality control. Special focus and discussion on control strategies for enterprise project management and emerging technologies, as well as protection of data and operations while conducting business in the cloud. It requires laboratory. Requisite: COIS 101, ENMA 101

MANA 210**Administrative Theories****Three Credits**

Study of all administrative theories and the management process in the sequence of planning, organizing, directing and controlling.

MANA 213**Personnel Management****Three Credits**

Study of all administrative theories and the management process in the sequence of planning, organization, directing, and controlling. Requisite: MANA 210

MANA 230**Organizational Behavior****Three Credits**

Application of the systems to the study of human behavior as individuals and in groups as determinants of organizational effectiveness, the formal and informal group, leader role in conflict management, perception, learning, socialization, motivation, efficient management of stress, awareness and development of values. Requisites: MANA 210, MANA 131

MANA 340
Production and Operations Management
Three Credits

Principles of production management applied to problems such as product design, objectives, policies, work methods and standards, plant location, layout, scheduling, maintenance, inventory, quality control, operation analysis, performance and cost control. Requisites: QUME 250, MANA 210

MANA 350
Business and Society
Three Credits

Study of the philosophies, interrelationships and viewpoints regarding the role of business in society, including selected issues in the context of social responsibility. Includes analysis of legislation related to the area. Requisite: ENMA 101

MANA 401
Seminar in Strategic Management
Three Credits

This is the capstone course of the Management major. It offers the student a hands-on overview of the strategic management process, focusing on the strategic analysis, strategy formulation and implementation phases. The student deepens his or her analytical competencies while applying previously acquired knowledge, skills, and values to specific management issues. Requisites: FINA 202, MANA 131, MANA 210, MANA 340, MARK 133 and 12 credits of Management

MANA 404
Labor Relations
Three Credits

Studies the worker-management relationships, development and operation of labor unions, public and private policies on labor relations, collective bargaining, job and union security, and labor laws. Requisites: MANA 213, BUSI 204

MARKETING

MARK 133
Principles of Marketing
Three Credits

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

MARK 235**Retailing****Three Credits**

Fundamentals of retail management. Application of the following basic concepts: organization, store location, design and layout, aspects of buying and selling, operating activities, merchandising policies, inventory control systems, and opportunities that bring this type of business. Requisite: MARK 133

MARK 206**Consumer Behavior****Three Credits**

Study of the concepts and applications of consumer behavioral patterns. Emphasis is on five major areas: Consumer behavior, Consumers and market segments, Environmental influences on consumer behavior, Individual determinants of consumer behavior, decision process. Requisite: MARK 133

MARK 237**Selling Principles****Three Credits**

Develops the principles of the selling approach: the salesperson's functions, responsibilities and sales techniques. Preparation of sales manuals, product portfolios, demonstrations, and selling strategies. It also includes the social implications of the selling process. Requisite: MARK 133

MARK 251**Advertising and Promotion****Three Credits**

History, social and economic aspects of advertising and promotion. Includes advertising plans and media, organization, background and planning of advertising strategy and how to select the advertising agency. Requisite: MARK 133

MARK 302**Sales Management****Three Credits**

Study of the planning, organization, control, and supervision of the sales force and the role of the sales manager in the administration of the business resources and in the marketing function. Analysis of problems related to the demand forecasting, planning, communication, evaluation, and control of sales, including case studies. Requisite: MARK 133, MARK 237

MARK 307**Services Marketing****Three Credits**

Analysis of the controllable variables in consumption and industrial services. Emphasis in design and application of the business of customer relationships. The exchange, positioning, and the marketing mix of services will be studied. Requisite: MARK 133

MARK 311**Electronic Marketing****Three Credits**

This course consists of the study and application of concepts and terminology of e-business, e-commerce, e-marketing and e-entrepreneurship. The course also studies the needs of businesses to adapt to constant and continuous market and technology changes. Strategic, administrative and operational plans are developed for the creation of new businesses and improvement of existing ones. Emerging technologies, open markets, ethics and legal issues are considered. Requires laboratory. Requisites: ENMA 101, MARK 133, COIS 101

MARK 320**Marketing Research****Three Credits**

Application of the scientific method in the collection, analysis and use of market data. Literature search and experimental work is used in the solution of marketing problems. Covers the importance of organizational and individual initiative, the traditions, methods and objectives of research in marketing. Requisites: MARK 133, STAT 201

MARK 403**Product Marketing****Three Credits**

Systematic approach to the manufacturing process. Includes new product development and formulation of new strategies for existing products, and how to relate it to product life cycle. Requisite: MARK 133

MARK 405**Public Relations in Business****Three Credits**

Study of the principles and practices of public relations as a required activity in the promotion of the enterprise. Includes strategies to maintain and project the organization's image in the market and the community. Requisite: MARK 133

MARK 410**International Marketing****Three Credits**

Analysis of the characteristics of international marketing and the factors influencing the marketing program. Includes international policies that determine decisions about products, channels of distribution and promotion strategies, and legal and financial aspects of international markets. Requisite: MARK 133

MARK 420**Marketing Internship****Three Credits**

Course involves student in a working experience related to marketing strategy in which principles acquired in the classroom will be applied. Strategies in drafting marketing policies at management level will be studied: organization, demand analysis, product planning, pricing system, logistics, and sale promotion. Will also expose the student to actual work situations, which will develop the assurance and self-confidence required in professional life. The experience will also aid the student in deciding on a specific area in the marketing field. Requires one-hundred and sixty (160) full-time work hours. Requisite: 15 credits approved among major courses.

OFFICE ADMINISTRATION**OFAD 141****Keyboarding****Four Credits**

Special emphasis will be given to key by touch using a computer keyboard. Development of speed and accuracy. Training in simple documents, such as: memorandums, documents with proofreader's marks, and also basic functions of Microsoft Word application such as: create, save, print, edit, and centralize text. Requires laboratory.

OFAD 142**Document Production I****Four Credits**

Continues the development and improvement of keyboarding skills and techniques. Emphasis on business correspondence, memos, simple reports and two-page reports, simple and complex tables, and employment documents. Requires laboratory. Requisite: OFAD 141

OFAD 206**Documents Production II****Four Credits**

Continues the development of speed and accuracy. Learning to produce complex documents as format cells to create key tables, long reports with endnotes, administrative and employment communications.

Review of the formats and word processing functions. New functions appropriate for formatting memos and letters are introduced. Requires laboratory. Requisite: OFAD 142

OFAD 215

Electronic Record Management for Medical Offices

Three Credits

This course is designed to provide the student with the basic principles of administration and management of electronic medical records. The course is developed through application exercises and the use of technology. Requisites: Requires laboratory. COIS 101 or COSC 111

OFAD 225

Administrative Procedures for Medical Offices

Three Credits

The course is designed in order for the students to learn how to apply administrative procedure related to the codification, billing, and collection of health services and health services related offices. The student will apply manual and electronic means in order to fulfill these administrative procedures. Requires laboratory.

OFAD 240

Spanish Alphabetic Speedwriting

Three Credits

The course is designed to develop skills in the Spanish alphabetic speedwriting system. To develop the skills, it includes practice in reading, writing and dictation. In addition, it emphasizes the language and punctuation rules. Requires laboratory. Requisite: OFAD 141

OFAD 250

Commercial Writing Direct to the Computer

Three Credits

This course is designed for students writing business communication directly to the computer correctly and efficiently. It emphasizes punctuation, grammar, language, and the typewriting skills required to product different types of business documents. Requires laboratory. Requisite: OFAD 142

OFAD 280

Records Management

Three Credits

Provides principles and methods relating to the organization and operation of various systems of record administration, protection and control of records. Provides training in modern methods for record classification and control systems.

OFAD 282**Office Administration****Three Credits**

Study of administrative procedures and its applications to office administration. Basic concepts of selection, training and supervision of the personnel. Provides for analysis, design, administration, and control of office administrative systems. Requires laboratory.

OFAD 285**Specialized Machine Transcription****Four Credits**

Students learn and master the skills of transcribing oral and recorded dictation documents. Review, development and integration of the knowledge of keyboarding and grammar, all of which are necessary to transcribe documents, are also covered. Requires laboratory. Requisite: OFAD 142

OFAD 307**Microcomputer Business Applications****Four Credits**

Training in the use of business applications, such as: Word processing, spreadsheet, electronic presentations, and database. Requires laboratory. Requisite: OFAD 206

OFAD 340**English Alphabetic Speedwriting****Three Credits**

The course is designed to develop skills in the English alphabetic speedwriting system. To develop the skills, it includes practice in reading, writing and dictation. In addition, it emphasizes the language and punctuation rules. Requisite: OFAD 141

OFAD 380**Office Simulation****Four Credits**

This course is designed to help students in the transition from classroom to office environment. Applications and development skills through exercise simulation by using modern technology equipment. Requires laboratory. Requisites: OFAD 307

OFAD 382**Specialized Office Practicum****Four Credits**

Training in office techniques through the practice and performance of tasks pertaining to the Office Administration area in internship centers selected and supervised by the professor. Through work experience, the students practice skills and desirable personal behavior previously acquired. Requisite: OFAD 380

STATISTICS

STAT 201

Introduction to Business Statistics I

Three Credits

Study of central tendency and dispersion measurements, sampling methods, probability theory, binomial probability distribution, normal density probability function and lineal regression. Requisite: MATH 112

STAT 301

Basic Business Statistics II

Three Credits

Sampling distribution and test of hypotheses, including Z, t, Chi Square and F. Multiple linear regression and correlation. Requisite: STAT 201

QUME 250

Quantitative Methods I

Three Credits

Pre-calculus for students of Business Administration and Economics. Includes: linear equations, linear inequalities, relations and functions. Logarithmic and exponential functions, financial mathematics and matrix algebra. Application problems are included for each content area within the Business Administration and Economics context. Requisite: MATH 112

QUME 251

Quantitative Methods II

Three Credits

Differential calculus and an introduction to integral calculus with applications for Business Administration and Economics. Topics covered are: the concept of limit, continuity, derivative of a function, basic rules of differentiation, applications of the derivatives, compound interest, marginal analysis, graphics and function optimization. Introduction to integral calculus. Requisite: QUME 250

School of Education

SCHOOL OF EDUCATION

The School of Education, aware of its responsibility to improve the quality of education in Puerto Rico, provides teacher candidates a solid preparation in the field of education as well as the cultural background necessary to enhance their professional competence and teaching skills. The programs of study offered in this school are intended to respond to the students' needs and to the educational and social demands of Puerto Rican society. The humanistic framework of the programs enables students to establish relationships among history, tradition, and contemporary ideas.

The School offers undergraduate degrees in Preschool Education, Early Childhood Education (K-3), Elementary School Education (4-6), Special Education (K-12), Recreation and Sports Education, Physical Education (K-12), Exercise Science and Health Promotion, Secondary Education: English, Spanish and History and associate degree in Exercise Instructor.

From August 2016, students need a minimum GPA of 3.00 to seek any teacher certification from the Puerto Rico Department of Education. They also need a 3.00 average in their major courses.

OBJECTIVES

To enable students to:

- successfully carry out their teaching assignments through the development of individual skills, attitudes, and abilities.
- be exposed to a variety of new situations that will help them strengthen their personalities and characters to become successful teachers.
- adopt a reflective and critical attitude when facing today's world problems.
- participate in an effective way with their colleagues in the revision and enrichment of curricula.
- understand the Puerto Rican cultural, social, ethical and aesthetic values in order to understand the values of other cultures.
- become aware of the great problems of human existence and their responsibility to help solve these in a fair and efficient way.
- understand that their mission as teachers is of great social and personal importance.
- accept the changes that will lead to the broadening of their knowledge and experience as teachers and to use that knowledge effectively in the teaching/learning process.
- choose and effectively use the resources and materials available in educational technology to improve their teaching methods and procedures.
- think critically and creatively.

ADMISSION REQUIREMENTS

To be admitted to the School of Education the student must fulfill all requirements for admission to the Institution. A general grade point average of 2.90 is required for admission to every program and their corresponding specialization. Associate degree and Bachelor in Exercise Science and Health Promotion, Recreation and Sport Studies grade point average (GPA) of 2.00. Specific admission requirements for some majors are revised periodically. The student should seek additional information regarding specific requirements from the Associate Dean of the School.

ADMINISTRATIVE STAFF

LUIS MOJICA TORRES, ED.D.

Dean

EdD, Teachers College, Columbia University

EdM, Teachers College, Columbia University

MA, Teachers College, Columbia University

BFA, City College, City University of N.Y.

FACULTY

GARCÍA VÁZQUEZ, EVELYN

Professor

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MA, University of Puerto Rico

BS, University of Puerto Rico

GONZÁLEZ RODRÍGUEZ, JUDITH

Professor

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MA, University of Puerto Rico

BA, University of Puerto Rico

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BA, Central University

CONCEPCIÓN ROSA, JUAN

Instructor

MA, Central University
BA, Central University

LÓPEZ ALEMÁN, ADOLFO

Instructor

MA, Universidad Metropolitana

BA, University of Puerto Rico

ASSOCIATE IN EDUCATION MAJOR IN EXERCISE INSTRUCTOR

60 Credits	Credits
General Studies Courses	24
Professional Courses	6
Major Courses	27
Elective	3

General Studies Courses		24
SPAN 114	Spanish Language Course – Basic Level	3
ENGL 114	English Language Course – Basic Level	3
SCIE 117	Integrated Sciences II	3
MATH 103	Mathematics for Teachers I	3
HUMA 111	Introduction to the Study of Western Civilization I	3
COIS 202	Computers in Education	3
PSYC 125	General Psychology Survey Course	3
FYIS 101	First Year Induction Seminar	3

Professional Courses		6
EDUC 100	Education, Leisure and Society	3
EDUC 327	Foundations of Health, Hygiene and Nutrition	3

Major Courses		27
ESHP 101	Exercise Industry, Health Promotion, Leadership and Ethics	3
ESHP 201	Anatomy and Kinesiology Applied to the Physical Exercise	3
ESHP 202	Exercise Physiology	3
ESHP 203	Design and Prescription of Exercise Programs	3
ESHP 204	Exercises with Special Populations	3
ESHP 300	Psychological Foundations of Exercise	3
ESHP 301	Managing and Teaching Classes of Exercises	3
REED 110	First Aids for Sports and Physical Activities	3
ESHP 302	Practice as Instructor and Trainer in Exercise	3

Elective	3
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BACHELOR IN EDUCATION MAJOR IN PRESCHOOL EDUCATION

122 Credits	Credits
General Studies Courses	51
Professional Courses	38
Major Courses	33

General Education Courses		51
SPAN 114-115	Spanish Basic Level I,II	6
SPAN 219	Advance Writing	3
ENGL 114-115	English Basic Level I,II	6
ENGL 207	Reading and Writing	3
SOSC 113	Introduction to the Social Sciences	3
HUMA 111-112	Introduction to the Study of Western Civilization I,II	6
MATH 103-104	Mathematics for Teachers I,II	6
MATH 119	Intermediate Algebra	3
SCIE 116-117	Integrated Sciences I,II	6
HIST 258	History of Puerto Rico	3
HIST 277	History of the United States	3
FYIS 101	First Year Induction Seminar	3

Professional Courses		38
EDUC 106	Introduction to Education	3
EDUC 173	Human Growth, Development and Learning	3
EDUC 180	Clinical Experiences I	1
EDUC 135	Foundations of Education	3
EDUC 204	Nature and Needs of Exceptional Children	3
EDUC 280	Clinical Experiences II	1
EDUC 202	Design and Production of Teaching and Learning Materials	3
EDUC 276	Classroom Management and Organization	3
EDUC 410	Introduction to Educational Research	3
EDUC 390	Curriculum Design	3
EDUC 409	Evaluation and Measurement in Education	3
EDUC 435	Interdisciplinary Seminar	3
EDUC 436	Pedagogical Seminar	3
COIS 202	Computers in Education	3

Major Required Courses		33
EDUC 170	Introduction to Preschool Education	3
EDUC 270	Learning Environment for Preschool Education	3
EDUC 300	Curriculum and Methodology for Early and Preschool Education	3
EDUC 315	Special Education: Early Intervention	3
EDUC 322	Preschool Education and Cultural Diversity	3
EDUC 323	Literature for Children	3
EDUC 324	Preschool Education for Exceptional Children	3
EDUC 360	Reading and Writing for Preschoolers	3
EDUC 427	Teaching Through Games	3
EDUC 440	Preschool Teaching Practice	6

**BACHELOR IN EDUCATION MAJOR IN EARLY CHILDHOOD EDUCATION (K-3) OR
MAJOR ELEMENTARY SCHOOL EDUCATION (4-6)**

116 Credits	Credits
General Studies Courses	51
Professional Courses	38
Major Courses	27

General Studies Courses		51
SPAN 114-115	Spanish Basic Level I,II	6
SPAN 219	Advance Writing	3
ENGL 114-115	English Basic Level I,II	6
ENGL 207	Reading and Writing	3
HUMA 111-112	Introduction to the Study of Western Civilization I,II	6
MATH 103-104	Mathematics for teachers I,II	6
MATH 119	Intermediate Algebra	3
SCIE 116-117	Integrated Sciences I,II	6
HIST 258	History of Puerto Rico	3
HIST 277	History of the United States	3
SOSC 113	Introduction to Social Sciences	3
FYIS 101	First Year Induction Seminar	3

Professional Courses		38
EDUC 106	Introduction to Education	3
EDUC 173	Human Growth, Development and Learning	3
EDUC 180	Clinical Experiences I	1
EDUC 135	Foundations of Education	3
COIS 202	Computers in Education	3
EDUC 204	Nature and Needs of Exceptional Children	3
EDUC 280	Clinical Experiences II	1
EDUC 202	Design and Production of Teaching and Learning Materials	3
EDUC 276	Classroom Management and Organization	3
EDUC 410	Introduction to Educational Research	3
EDUC 390	Curriculum Design	3
EDUC 409	Evaluation and Measurement in Education	3
EDUC 435	Interdisciplinary Seminar	3

Professional Courses		38
EDUC 436	Pedagogical Seminar	3

Major Courses – Early Childhood Education (K-3)		27
EDUC 220	The Teaching of Language Arts in Early Childhood Education	3
EDUC 223	The Teaching of English in Early Childhood Education	3
EDUC 323	Literature for Children	3
EDUC 356	Teaching Social Studies in Early Childhood Education	3
EDUC 352	Teaching Mathematics in Early Childhood Education	3
EDUC 350	Teaching Science in Early Childhood Education	3
PHED 207	Games and Sports	3
EDUC 443	Teaching Practice	6

Major Courses – Elementary School Education (4-6)		27
EDUC 221	The Teaching of Language Arts in Elementary School	3
EDUC 222	The Teaching of English in the Elementary School	3
EDUC 323	Literature for Children	3
EDUC 357	Teaching Social Studies in Elementary School	3
EDUC 353	Teaching Mathematics in Elementary School	3
EDUC 351	Teaching Science in Elementary School	3
PHED 207	Games and Sports for Elementary School Children	3
EDUC 445	Teaching Practice in Elementary School	6

BACHELOR IN EDUCATION MAJOR IN SPECIAL EDUCATION K-12

119 Credits	Credits
General Studies Courses	51
Professional Courses	35
Major Courses	33

General Studies Courses		51
SPAN 114-115	Spanish Language Basic Level I,II	6
SPAN 219	Advance Writing	3
ENGL 114-115	English Language Basic Level I,II	6
ENGL 207	Reading and Writing	3
HUMA 111-112	Introduction to the Study of Western Civilization I,II	6
MATH 103-104	Mathematics for Teachers I,II	6
SCIE 116-117	Integrated Sciences I, II	6
HIST 258	History of Puerto Rico	3
HIST 277	History of the United States	3
SOSC 113	Introduction to Social Sciences	3
Math 119	Intermediate Algebra	3
FYIS 101	First Year Induction Seminar	3

Professional Courses		35
EDUC 106	Introduction to Education	3
EDUC 173	Human Growth, Development and Learning	3
EDUC 180	Clinical Experiences I	1
EDUC 135	Foundations of Education	3
COIS 202	Computers in Education	3
EDUC 202	Design and Production of Teaching and Learning Materials	3
EDUC 204	Nature and Needs of Exceptional Children	3
EDUC 280	Clinical Experiences II	1
EDUC 276	Classroom Management and Organization	3
EDUC 410	Introduction to Educational Research	3
EDUC 390	Curriculum Design	3
EDUC 435	Interdisciplinary Seminar	3
EDUC 436	Pedagogical Seminar	3

Major Courses		33
SPED 303	Neurological Development, Sensory Functions: Implications in Specific Learning Disabilities	3
SPED 324	Preschool Education for Exceptional Children	3
SPED 210	History and Legal Foundations of Special Education	3
SPED 320	Nature and Needs of Students with Mild Disabilities	3
SPED 326	Methodology, Innovative, Practice, Inclusion and Transition	3
SPED 390	Methodology for the Teaching of Mathematics in the Special Education	3
SPED 391	Teaching Reading and Writing in Special Education for the Elementary Level	3
SPED 392	Teaching Reading and Writing in Special Education for the Secondary Level	3
SPED 415	Diagnostic and Evaluation Techniques for Exceptional Children	3
SPED 451	Practice Teaching in Special Education k-12	6

BACHELOR IN EDUCATION MAJOR IN ENGLISH

125 Credits	Credits
General Studies Courses	45
Professional Courses	41
Major Courses	39

General Studies Courses		45
SPAN 114-115	Spanish Language Basic Level I,II	6
SPAN 219	Advance Writing	3
ENGL 114-115	English Language Basic Level I,II	6
SOSC 113	Introduction to Social Sciences	3
HUMA 111-112	Introduction to the Study of Western Civilization I,II	6
MATH 114-115	Intermediate Algebra I,II	6
SCIE 116-117	Integrated Sciences I,II	6
HIST 258	History of Puerto Rico	3
HIST 277	History of the United States	3
FYIS 101	First Year Induction Seminar	3

Professional Courses		41
EDUC 106	Introduction to Education	3
EDUC 173	Human Growth and Development	3
EDUC 180	Clinical Experiences I	1
EDUC 135	Foundations of Education	3
COIS 202	Computers in Education	3
EDUC 204	Nature and Needs of Exceptional Children	3
EDUC 280	Clinical Experiences II	1
EDUC 276	Classroom Management and Organization	3
EDUC 331	Methodology for the Teaching of English as a Second Language in Secondary School	3
EDUC 390	Curriculum Design	3
EDUC 400	Language Arts in Secondary School	3
EDUC 409	Evaluation and Measurement in Education	3
EDUC 410	Introduction to Educational Research	3
EDUC 435	Interdisciplinary Seminar	3
EDUC 436	Pedagogical Seminar	3

Major Courses		39
ENGL 201-202	Second Year English-Basic Level	6
ENGL 213-214	Written and Oral Communication	6
ENGL 245	English Grammar I	3
ENGL 351	Literature for Adolescent's	3
ENGL 303	Introduction to English Phonetics	3
ENGL 305	English Grammar II – Advance Level	3
ENGL 371	Introduction to Linguistics	3
BIED 401	Contrastive Analysis	3
EDUC 449	Practice Teaching in Secondary School	6

BACHELOR IN EDUCATION MAJOR IN HISTORY

125 Credits	Credits
General Studies Courses	54
Professional and/or Related Courses	41
Major Courses	30

General Studies Courses		54
SPAN 114-115	Spanish Language Course - Basic Level I,II	6
SPAN 219	Advanced Writing	3
ENGL 114-115	English Language Course - Basic Level I,II	6
HUMA 111-112	Introduction to the Study of Western Civilization I,II	6
SOSC 109-110	Introduction to Social Sciences	6
MATH 114-115	Intermediate Algebra I,II	6
SCIE 116-117	Integrated Sciences I,II	6
HIST 255-256	History of Puerto Rico I, II	6
HIST 275-276	History of the United States of America I, II	6
FYIS 101	First Year Induction Seminar	3

Professional Courses		41
EDUC 106	Introduction to Education	3
EDUC 173	Human Growth and Development	3
EDUC 180	Clinical Experiences I	1
EDUC 135	Foundations of Education	3
COIS 202	Computers in Education	3
EDUC 204	Nature and Needs of Exceptional Children	3
EDUC 280	Clinical Experiences II	1
EDUC 276	Classroom Management and Organization	3
EDUC 332	Methodology of Teaching History	3
EDUC 390	Curriculum Design	3
EDUC 400	Language Arts in Secondary School	3
EDUC 409	Evaluation and Measurement in Education	3
EDUC 410	Introduction to Educational Research	3
EDUC 435	Interdisciplinary Seminar	3
EDUC 436	Pedagogical Seminar	3

Major Courses		30
HIST 221	Renaissance, Reformation and the Rise of the State	3
HIST 203-204	Ancient and Medieval History	6
HIST 261-262	Latin American History	6
GEOG 202	Elements of Geography	3
HIST 232	Contemporary World Problems	3
HIST 320 or HIST 305	African History Caribbean History	3
EDUC 449	Practice Teaching in Secondary School	6

BACHELOR IN EDUCATION MAJOR IN SPANISH

125 Credits	Credits
General Studies Courses	45
Professional and/or Related Courses	41
Major Courses	39

General Studies Courses		45
SPAN 114-115	Spanish Language Course - Basic Level I,II	6
SPAN 219	Advanced Writing	3
ENGL 114-115	English Language Course - Basic Level I,II	6
HUMA 111-112	Introduction to the Study of Western Civilization I,II	6
HIST 258	History of Puerto Rico	3
HIST 277	History of the United States	3
SOSC 113	Introduction to Social Sciences	3
MATH 114-114	Intermediate Algebra I,II	6
SCIE 116-117	Integrated Sciences I,II	6
FYIS 101	Fist Year Induction Seminar	3

Professional Courses		41
EDUC 106	Introduction to Education	3
EDUC 173	Human Growth and Development	3
EDUC 180	Clinical Experiences I	1
EDUC 204	Nature and Needs of Exceptional Children	3
EDUC 280	Clinical Experiences II	1
EDUC 135	Foundations of Education	3
COIS 202	Computers in Education	3
EDUC 276	Classroom Management and Organization	3
EDUC 330	Methodology for Teaching Spanish Secondary Schools	3
EDUC 390	Curriculum Design	3
EDUC 400	Language Arts in Secondary School	3
EDUC 409	Evaluation and Measurement in Education	3
EDUC 410	Introduction to Educational Research	3
EDUC435	Interdisciplinary Seminar	3
EDUC 436	Pedagogical Seminar	3

Major Courses		39
SPAN 213-214	Literary Genres	6
SPAN 265	Advanced Grammar	3
SPAN 221-222	Spanish Literature	6
SPAN 235	Linguistics	3
SPAN 451-452	Puerto Rican Literature	6
SPAN 461-462	Spanish American Literature	6
SPAN 218	Oral Communication	3
EDUC 449	Practice Teaching in Secondary School	6

BACHELOR IN EDUCATION MAJOR IN PHYSICAL EDUCATION K-12

117 Credits	Credits
General Studies Courses	51
Professional Courses	24
Major Courses	42

General Studies Courses		51
SPAN 114-115	Spanish Language Course-Basic Level I,II	6
SPAN 219	Advanced Writing	3
ENGL 114-115	English Language Course-Basic Level I,II	6
ENGL 207	Reading and Writing	3
SCIE 116-117	Integrated Sciences I,II	6
MATH 103-104	Mathematics for teachers I,II	6
MATH 119	Intermediate Algebra	3
HUMA 111-112	Introduction to the Study of Western Civilization I,II	6
HIST258	History of Puerto Rico	3
HIST 277	History of the United States	3
SOSC 113	Introduction to the Social Sciences	3
FYIS101	First Year Induction Seminar	3

Professional Courses		24
EDUC 100	Education, Leisure and Society	3
EDUC 173	Human Growth, Development and Learning	3
EDUC 135	Foundations of Education	3
COIS 202	Computers in Education	3
EDUC 204	Nature and Needs of Exceptional Children	3
EDUC 410	Introduction to Educational Research	3
EDUC 435	Interdisciplinary Seminar	3
EDUC 436	Pedagogical Seminar	3

Major Courses		42
PHED 105	Foundations of Physical Education	3
PHED 113	Clinical Experience I	1
PHED 115	Introduction to Physical Education Sciences and Movement	3
PHED 116	Clinical Experience II	1
PHED 200	Curriculum and Teaching Planning in Physical Education	3
PHED 210	Learning Methods in Elementary Physical Education	3
PHED 211	Clinical Experience III	1
PHED 309	Methodology and Teaching Physical Education Secondary Level	3
PHED 310	Theory and Practice Physical Education K-3	3
PHED 311	Theory and Practice Physical Education 4-6	3
PHED 330	Physical Education and Recreation Adapted	3
PHED 350	Assessment, Measurement and Evaluation in Physical Education	3
PHED 370	Planning and Organization of Extracurricular Activities in Elementary Physical Education	3
PHED 449	Teaching Practice in Physical Education K-12	6
Elective		3

BACHELOR IN EDUCATION MAJOR IN RECREATION AND SPORT

117 Credits	Credits
General Studies Courses	45
Professional Courses	12
Major Courses	48
Elective	12

General Studies Courses		45
SPAN 114-115	Spanish Language Course-Basic Level	6
ENGL 114-115	English Language Course-Basic Level	6
SCIE 116-117	Integrated Sciences I,II	6
MATH 103-104	Mathematics for Teachers I,II	6
MATH 119	Intermediate Algebra	3
HUMA 111-112	Introduction to the Study of Western Civilization I,II	6
HIST 101	Introduction to the Study History	3
SOSC 113	Introduction to the Social Sciences	3
COIS 101	Introduction to Computers	3
FYIS 101	First Year Induction Seminar	3

Professional Courses		12
EDUC 100	Education, Leisure and Society	3
EDUC 173	Human Growth, Development and Learning	3
EDUC 327	Foundations of Health, Hygiene and Nutrition	3
EDUC 317	Data Analysis Scheduled	3

Major Courses		48
REED 105	Introduction to Recreation and Sports Studies	3
REED 106	Recreation Governmental	3
REED 107	Therapeutic Recreation	3
REED 108	Recreation Commercial and Private	3
REED 200	Recreation Program Planning	3
REED 205	Management of Recreation and Leisure Services	3
REED 210	Leadership and Supervision in Recreation and Leisure	3
REED 303	Parks and Natural Resources Planning and Administration	3
REED 315	Legal Aspects in Sports and Physical Activities	3

Major Courses		48
REED 320	Designs and Management Recreation and Sports Facilities	3
REED 400	Assessment, Measurement and Evaluation in Recreation	3
EDUC 410	Introduction to Research in Recreation	3
REED 420	Internship I – Governmental Recreation	6
REED 425	Internship II – Private and Commercial Recreation	6

Electives	12
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BACHELOR IN EDUCATION MAJOR IN EXERCISE SCIENCE AND HEALTH PROMOTION

114 Credits	Credits
General Studies Courses	45
Major Courses	48
Minor Courses	18
Elective	3

General Studies Courses		45
SPAN 114-115	Spanish Language Course-Basic Level	6
ENGL 114-115	English Language Course-Basic Level	6
SCIE 116-117	Integrated Sciences I,II	6
MATH 103-104	Mathematics for Teachers I,II	6
HUMA 111-112	Introduction to the Study of Western Civilization I,II	6
HIST 258	History of Puerto Rico	3
SOSC 113	Introduction to the Social Sciences	3
COIS 202	Computers in Education	3
PSYC 125	General Psychology Survey Course	3
FYIS 101	First Year Induction Seminar	3

Major Courses		48
EDUC 100	Education, Leisure and Society	3
EDUC 327	Foundations of Health, Hygiene and Nutrition	3
ENMA 101	Introduction to Entrepreneurship	3
ESHP 101	Exercise Industry , Health Promotion, Leadership and Ethics	3
ESHP 201	Anatomy and Kinesiology Applied to the Physical Exercise	3
ESHP 202	Exercise Physiology	3
ESHP 203	Design and Prescription of Exercise Programs	3
ESHP 204	Exercises with Special Populations	3
ESHP 300	Psychological Foundations of Exercise	3
ESHP 301	Managing and Teaching Classes of Exercises	3
REED 110	First Aids for Sports and Physical Activities	3
ESHP 302	Practice as Instructor and Trainer	3
ESHP 303	Management Programs of Physical Efficiency	3
ESHP 304	Evaluation of Physical Efficiency Programs	3
ESHP 305	Practice in Administration of Physical Efficiency Programs	6

Minor Courses		18
REED 105	Introduction to Recreation and Sports Studies	3
REED 301	Camps Development	3
REED 200	Recreation Program Planning	3
REED 205	Management of Recreation and Leisure Services	3
REED 210	Leadership and Supervision in Recreation and Leisure	3
REED 315	Legal Aspects in Sports and Physical Activities	3
REED 320	Designs and Management Recreation and Sports Facilities	3
REED 400	Assessment, Measurement and Evaluation in Recreation	3
REED 410	Research Methods in Recreation	3

Elective	3
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COURSES DESCRIPTION

COIS 202

Computers in Education

Three Credits

An introductory course aimed at acquiring knowledge about the importance of the computer as an essential tool in the process of integrating technology in education. It prepares students for education for the selection, evaluation and use of information technology and communications technology (ICT) in teaching their subject, access and communication through various information resources and the development of personal responsibility and social care, protection and violation of intellectual property and, in general, the social value of education of information technology.

EDUC 100

Education, Leisure and Society

Three Credits

Interdisciplinary view of education as a social commitment and as an academic and professional field. The course covers education, formation of integral instruction, one semester three hours per week.

EDUC 106

Introduction to Education

Three Credits

A general view of education as a social commitment and as an academic and professional field. Includes the study of the specifics of this viewpoint and an objective analysis of the school, the educational system and the teacher as central concepts. The course covers education, formation of integral instruction, the nature of values and value judgments in teaching, the school and teacher as agents of change.

EDUC 135

Foundations of Education

Three Credits

Study of psychological principles, sociological and philosophical influence human behavior and its application to the teaching-learning process in the educational context. Requisites: EDUC 173, EDUC 180, SOSC 113

EDUC 170

Introduction to Preschool Education

Three Credits

Discuss the history of preschool education, characteristics of young children and of preschool programs. Analysis of philosophical, sociological and psychological theories of child development. Requisites: EDUC 135

EDUC 173**Human Growth, Development and Learning****Three Credits**

Study of scientific bases for human growth and development and their implications for the teacher and the school. Considers natural and environmental factors that help or endanger emotional stability and social adjustment of children and applies psychological principles to teaching at elementary and secondary levels. Studies existing social conditions and their relationships to changes in human conduct. One semester. Three hours per week. Requisites: EDUC 106

EDUC 180**Clinical Experiences I****One credit**

Observational experiences related to the teaching-learning process in educational settings. Students engage, through observations, in the multiple phenomena of teaching and learning as it happens in classrooms, playgrounds, dinners, administration offices and counseling groups. Students are required to submit a final report of their observational experiences. The course requiring this observational experience is: EDUC 173. Co-requisites: EDUC 173

EDUC 202**Educational Technology and Production of Teaching and Learning Materials****Three Credits**

Laboratory course in the selection, production, and evaluation of educational technology materials. Students use production techniques for the creation of their own materials with the maximum use of the educational technology facilities available. Requisites: EDUC 135

EDUC 204**Nature and Needs of Exceptional Children****Three Credits**

This course is designed to study the various exceptionalities that affect human development including physical, cognitive and emotional aspects. Categories, etiology, characteristics of various exceptionalities are analyzed. Federal and local regulations that guarantee the rights of the people with incapacities are analyzed. Requisites: EDUC 135

EDUC 220**Teaching Language Arts in Early Childhood Education****Three Credits**

A systematic study of the development of language that analyzes the strategies and techniques used in the teaching of language arts from Kinder through third grade, and the Spanish Language curriculum as it relates to the development of basic skills and standards. Emphasis is given to reading and writing connections. Requisites: SPAN 114-115, EDUC 276, EDUC 390

EDUC 221**The Teaching of Language Arts in Elementary School****Three Credits**

Involves the study of learning and skills in teaching Spanish as their mother tongue. It emphasizes the mastery of reading comprehension and specific strategies for improvement. Systematic study of language development that discusses strategies and techniques used in the teaching of the language of Arts in Elementary Curriculum and Spanish, and how it relates to the development of basic skills inherent in the teaching program language arts. Emphasis is given to the relationship between language and thought. Requisites: SPAN 114-115, EDUC 276, EDUC 390

EDUC 222**The Teaching of English in the Elementary School****Three Credits**

Introduction to the principles and strategies of teaching English as a second language from fourth to sixth grade. Includes discussion and analysis of the English program, standards curriculum, and textbooks. Planning and demonstration classes are required. Requisites: EDUC 276, EDUC 390, ENGL 114-115 or ENGL 103-104 or ENGL 105-106

EDUC 223**The Teaching of English in Early Childhood Education (K-3)****Three Credits**

The students will demonstrate the dominion of the acquired skills to teach English in the degrees of the K to 3rd grade. Includes the planning and development of demonstrations five classes using the techniques, materials and competitions that the Department of Education of Puerto Rico uses. The standards of the program of English will be studied study from K to 3er grade. The preparation of the Portfolio for the evaluation of the course will be emphasized. Requisites: EDUC 276, EDUC 390, ENGL 114-115 or ENGL 103-104 or ENGL 105-106 or ENGL 201-202

EDUC 270**Learning Environment for Preschool Education****Three Credits**

Analysis of learning theories during early years and its application to the selection of instructional activities, exploration of classroom environment, materials and equipment. Identification of high qualities and standards for early childhood professionals. Techniques of teaching and working with preschoolers and parents. Study of the planning of organization of the preschool classroom and its environment. Requisites: EDUC 170

EDUC 276**Classroom Management and Organization****Three Credits**

The course is intended to promote observance, practice and analysis of situations of the daily routine of a teacher. Also provides for discussion of theories and models related to management and organization in the classroom. This course aims to develop skills to manage groups and intervene with students in different manifestations of behavior. Will study techniques and classroom management strategies in physical appearance as well as alternatives to control and behavior modification group. Will study the role of the teacher with the group and strategies at your disposal to organize activities throughout the school year. Be managed and completed the documents required in the profession. It includes basic concepts of ethics and morality of the profession. Finally, we explore techniques and strategies of inclusion and group management with gifted students, low performing students and students with disabilities. The course requires fifteen hours of observation and gradual involvement in a school. Requisites: EDUC 135

EDUC 280**Clinical Experiences II****One Credits**

Students must engage in the teaching-learning process as teachers' aides in a special education classroom. In these collaborative experiences, students have to assist teachers in the development of daily learning activities of students with disabilities. Eighteen hours of these collaborative experiences are required for students with disabilities. Students are required to submit a final report of their collaborative experiences. The course requiring this observational experience is: EDUC 204. Co-requisites: EDUC 204.

EDUC 300**Curriculum and Methodology for Early and Preschool Education****Three Credits**

The student will have to take this course close to the practicum experience. It offers to the student clinical experiences in the methodology of education and its application to infants and children in early education. In addition, it studies the knowledge and skills related to the different areas of curriculum and the application of the theories of learning in education. This course emphasize the study of special curriculum for infants and children in early education, the preparation of instructional materials, methods, strategies, techniques and educational programs, as well as the diagnosis, evaluation the individualization of instruction. It also studies the value game as a strategy in the early education of infants and children. Requisites: EDUC 270, EDUC 390

EDUC 315**Special Education: Early Intervention****Three Credits**

The principles of early intervention with emphasis on the social, historical, legal and philosophical foundations of special education for young children. This course considers nature, causes and characteristics of developmental delay. Requisites: EDUC 300

EDUC 317**Data Analysis in Scheduled****Three Credits**

Introduction to basic statistical principles with emphasis on descriptive methods. Specifically designed to prepare students for graduate-level research in education. Includes data collection procedures, probability, normal curve, central tendency measures, and dispersion measures (for ungrouped and grouped data). Includes an introduction to the study of the most commonly used inferential statistics. Requisites: MATH 103-104-119

EDUC 322**Preschool Education and Cultural Diversity****Three Credits**

Overview of the social elements responsible for cultural diversity in society: age, sex, race and life style, and its curriculum implications for contemporary preschool professionals. Requisites: EDUC 300

EDUC 323**Literature for Children****Three Credits**

Provides prospective teachers with the information needed in the area of children's literature to select the appropriate materials for students from preschool level to sixth grade. Facilitates the presentation of appropriate activities for preschool, early childhood and elementary students including analysis of stories, poems, biographies, dramas, and other materials to be presented in the class. Requisites: EDUC 135, SPAN 114-115

EDUC 324**Preschool Education for Exceptional Children****Three Credits**

Skills and techniques enabling students to develop and organize educational experiences for the exceptional child at the Preschool level. Emphasis is on stimulating children's growth in motor development (fine and gross), reasoning, receptive and expressive language, visual perception, social and emotional development, self-help, and cognitive development. Analysis of the capabilities of handicapped students who receive appropriate education in an unrestrictive environment that motives their integral development and exploits their learning potential. Includes review, analysis and study of early stimulation exercises for psychomotor development that may be adapted to the handicapped Preschooler. Requisites: EDUC 204-280

EDUC 327**Foundations of Health, Hygiene and Nutrition****Three Credits**

Factors related to the improvement and conservation of health. Analysis of environmental health and its impact on the preschool, early childhood, elementary and secondary students. Emphasis on the factors that affect teachers' and students' mental health, and that help reduce drug abuse, alcoholism and behavior disorders. Includes analysis of human reproduction and factors affecting pregnancy and labor. Personal health habits and the relationship of the human body to health, nutrition and disease.

Requisites: EDUC 100, EDUC 173

EDUC 330**Methodology for Teaching of Spanish in Secondary Schools****Three Credits**

This course provides an integrated view of the Spanish program at the secondary level. Participants will gain basic knowledge of new approaches to the teaching of Spanish. It emphasizes the methods, strategies and techniques to develop contemporary and innovative teaching-learning process of the vernacular.

Requisites: EDUC 276, 390, SPAN 114-115, 213,214

EDUC 331**Methodology for the Teaching of English as a Second Language in Secondary Schools****Three Credits**

Studies and analyses the procedures, content, methodology and techniques for teaching English as a second language as a second language at the secondary school level. EDUC. 106, EDUC. 173, PLUS 15 CREDITS OF CONCENTRATION COURSES

EDUC 350**Teaching Science in Early Childhood Education (K-3)****Three Credits**

Designed to develop teaching competencies and professional standards which allow students to perform effectively as science teachers of early childhood young students, using science as a mode of inquiry. Analysis of methods, science content standards, programs, and materials for teaching science from Kinder to Third grade. Requisites: EDUC 276, EDUC 390, SCIE 116-117

EDUC 351**Teaching Science in Elementary School (4-6)****Three Credits**

Designed to develop teaching competencies and professional standards which allow the students to perform effectively as science teachers, using science as a mode of inquiry. Analysis of methods, science content standards, programs, and materials for teaching science from Fourth to Sixth grade. Requisites: EDUC 276, EDUC 390, SCIE 116-117

EDUC 352**Teaching Mathematics in Early Childhood Education (K-3)****Three Credits**

Analysis of methods, mathematics content standards, programs and teaching materials for Kinder to Third grade students. To develop teaching competencies and professional standards which allow students to perform effectively as Mathematics teachers of early childhood students. Requisites: EDUC 276, EDUC 390, MATH 119

EDUC 353**Teaching Mathematics in Elementary School (4-6)****Three Credits**

Content analysis and the goals of the Elementary School Mathematics. Study of methods, techniques and teaching and learning processes commonly used in this area, especially the application of the constructivist approach of mathematics. Includes discussion of the problems facing the teacher in the teaching of mathematics. Review documents such as study guides, textbooks and Mathematics Program Standards and the relationship between them and the teaching process. Using computerized technology and software in the classroom. Demonstrations will be offered in different areas within the math curriculum in elementary school and its application to everyday life situations. Requisites: EDUC 276, EDUC 390, MATH 119

EDUC 356**Teaching Social Studies in Early Childhood Education (K-3)****Three Credits**

Designed to develop teaching competencies and professional standards which allow students to perform effectively as social studies teachers of early childhood students from Kinder to Third grade. In this course students analyze teaching methods, social studies standards, programs, and instructional materials. Requisites: EDUC 276, EDUC 390, HIST 258

EDUC 357**Teaching Social Studies in Elementary School (4-6)****Three Credits**

Designed to develop teaching competencies and professional standards which allow students to perform effectively as social studies teachers in elementary school from fourth to sixth grade. In this course students analyze teaching methods, social studies standards, programs, and instructional materials. Requisites: EDUC 276, EDUC 390, HIST 258

EDUC 360**Reading and Writing for Preschoolers****Three Credits**

Basic concepts, principles and theories related to the teaching and learning process of reading and writing at the preschool level, are studied. It also includes clinical and laboratory experiences to provide the future teacher with the basic techniques used in preparing the preschool child for reading and writing. Requisites: Requisites: EDUC 300, EDUC 390, SPAN 114-115

EDUC 390**Curriculum Design****Three Credits**

Foundations and principles of curriculum design, evaluation and review. Includes content and teaching strategies. Examination of programs, trends and development in curriculum and instruction from preschool to secondary education.

Requisites: EDUC 135

EDUC 400**Language Arts in Secondary School****Three Credits**

The use of the vernacular as a teaching strategy in the high school curriculum: the nature of language processing, the importance and role of the vernacular as a tool for oral and written communication, development of language skills: the sequence of the arts curriculum language from elementary school through high school. Study Spanish learning program through writing, reading and speaking, materials and other resources to refine physical skills in the use of language. Requisites: SPAN 114 – 115

EDUC 409**Evaluation and Measurement in Education****Three Credits**

Basic principles in the teaching/learning process and its application to the assessment and measurement techniques. Studies teaching methods, means and techniques for quantitative and qualitative evaluation of the learning process. It also includes, application, interpretation and analysis of the statistical procedures used. Analysis of the impact of teaching procedures to the assessment and measurement planning. Requisites: EDUC 276, EDUC 390

EDUC 410**Introduction to Educational Research****Three Credits**

Study of basic scientific methods used for inquiry, research, and planning. It includes the techniques used in the observation, analysis and presentation of data obtained from tests, interviews, and questionnaires. Discussion of the role of theoretical research in education. Practice in formulation of

problems and hypotheses, samplings, measurement and scale construction. Students are supervised in the design and completion of simple research projects. Requisites: MATH 119

EDUC 427

Teaching through Games

Three Credits

Study of games as a teaching strategy in preschool education. Multidisciplinary concepts and theories of games and their impact in the physical, motor, intellectual, affective and creative development of the infant and the preschool child, are studied. The course includes a variety of indoor and outdoor games, and field observations. Requisites: EDUC 170

EDUC 435

Interdisciplinary Seminar

Three Credits

Interdisciplinary Seminar that integrates academic socio-humanistic and scientific knowledge developed by the student, future master, during his training. Discussion and analysis of trends, methods and innovations related to the fundamental knowledge and skills of the communication of the teacher in their local and global context. Emphasis is placed on the use of case studies, problem solving, thematic discussions and application technology. Co- requisites: EDUC 436. Requisites: SPAN 114-115-219; ENGL 114 -115; MATH 103-104-119; SOSC 113; HUMA 111-112; COIS 202; SCIE 116-117; HIST 258

EDUC 436

Pedagogical Seminar

Three Credits

Professional seminar integrating all the academic knowledge students have acquired during their teacher preparation. Involved discussion and analysis of trends, methods and innovations related to the field of education.

Co- requisites: EDUC 435

Requisites: EDUC 204-280, EDUC 276, EDUC 390 or PHED 200, EDUC 409 or PHED 350, EDUC 410 and the **Teaching Courses.**

EDUC 440

Preschool Teaching Practice

Six Credits

Supervised teaching experience performing tasks in public or private creditable preschool centers. Offers students the opportunity to develop and apply adequate professional, academic, psychosocial, curricular and innovative skills to prospective teachers. Applications for EDUC 440 need the approval of all required professional and specialization course with a minimum grade of B in each course.

EDUC 443**Teaching Practice (Early Childhood Education)****Six Credits**

Supervised teaching experience performing tasks in a public or private accredited school from Kinder to Third grade classrooms. Offers students the opportunity to develop and apply adequate professional, academic, psycho-social, curricular and innovative skills as prospective teachers. Includes lesson planning, preparing and handling professional records, interviews, and visits to children's homes. Various evaluation techniques are applied by students under the supervision of a regular teacher from an accredited school and a college supervisor. Students must apply to enroll in the Practice Teaching Program and obtain official approval from the program division. Applications for EDUC 443 need the approval of all required professional and specialization course with a minimum grade of B in each course.

EDUC 445**Practice Teaching (Elementary School)****Six Credits**

The course Education 445, teaching practice at the elementary level, is the final phase of teacher preparation. It is an experience in which the future teacher performs all the duties of a professional teacher. The purpose of the course is to provide direct experiences where future teachers develop professional skills, knowledge of academic and social needs of the student, curriculum content knowledge, and application of teaching methods, techniques, and strategies to determine the academic progress of students. Students must apply to enroll in the Practice Teaching Program and obtain official approval from the program division. Applications for EDUC 445 need the approval of all required professional and specialization course with a minimum grade of B in each course.

EDUC 449**Practice Teaching in Secondary School****Six Credits**

The student teacher is assigned to a school by his/her supervisor where he/she is involved in all classroom activities: planning, evaluation, routine, and extra-curricular activities, under the supervision of a regular teacher and a supervisory professor from the University. The student must apply to enroll in Teaching Practice and obtain official approval from the program division. Applications for EDUC 449 need the approval of all required professional and specialization course with a minimum grade of B in each course.

PHED 105**Foundations of Physical Education****Three Credits**

An overview of the physical education field including its philosophical, historical, psychological, and sociological foundations. Requisites: EDUC 135

PHED 113**Clinical Experiences I****One Credit**

First field experience to teaching elementary physical education. The course requiring this observational experience is: PHED 105. Co- requisites: PHED 105

PHED 115**Introduction of the Science in Physical Education and Movement****Three Credits**

Overview study of the applied sciences in physical education, human anatomy, kinesiology, exercise physiology, physical fitness and motor learning and development. Requisites: PHED 105-113

PHED 116**Clinical Experiences II****One Credit**

Second field experiences in teaching physical education in elementary school. The course requiring this observational experience is: PHED 115. Co-requisites: PHED 115

PHED 200**Curriculum and Planning Teaching in Physical Education****Three Credits**

Study of the curriculum in elementary physical education, it design, implementation and evaluation. Requisites: PHED 115-116

PHED 207**Games and Sports for Elementary School Children****Three Credits**

Involves student teachers with group games and sports for physical development and the fostering of desirable attitudes in sports; materials and techniques leading to physical, aesthetic, and healthy recreation. Includes games and activities for children with disabilities. Requisites: EDUC 135

PHED 210**Learning Methods in Elementary Physical Education****Three Credits**

Study of the teaching methods in elementary physical education from k-3 and 4 to 6 grades. Emphasis on teaching foundations, theories and strategies. Requisites: PHED 200

PHED 211 Clinical Experiences III**One Credit**

Third field experiences in teaching elementary physical education. The course requiring this observational experience is: PHED 210. Co-requisites: PHED 210

PHED 309**Methodology and Teaching Physical Education Secondary Level****Three Credits**

The course provides the student an opportunity to explore the effectiveness of the teaching at the secondary level of the physical education working with the development of objectives, observation and analysis of the instruction, study of the strategies, and research in this field. Requisites: PHED 210- 211, PHED 350, PHED 370

PHED 310**Theory and Practice in Physical Education k-3****Three Credits**

Theory and practices on teaching physical education in grades k-3. Analysis of theories and its applications. Emphasis in using play and games as instruments to archive children's development, motor abilities, physical fitness and emotionally and cognitively well-being. Requisites: PHED 210-211

PHED 311**Theory and Practice in Physical Education in Elementary 4-6****Three Credits**

Study and analysis of the theory and practice of physical education from grades 4th to 6th. It reflects on the theories of physical education in grades four through six, and the application and use of games as a working tool to develop the child holistically and simultaneously introduce sports participation. Requisites: PHED 310

PHED 330**Physical Education and Recreation Adapted****Three Credits**

Physical Education and Recreation adapted in elementary school. Includes the planning of physical education activities modified and adapted to improve physical aptitude, basic movements' skills, perceptual motor abilities, and the strategies and new techniques used to teach children. Requisite: EDUC 204

PHED 350**Assessment, Measurement and Evaluation of Physical Education****Three Credits**

Study of measurement concepts, assessment and evaluation and its use in the field of Physical Education for Elementary School. The assessment of the learning of knowledge is examined, motor, affective skill and of physical efficiency. Requisites: PHED 200, PHED 210

PHED 370**Planning and Organization of Extracurricular Activities in Elementary Physical Education****Three Credits**

Study of the planning process and managing aspect in the organization of extracurricular programs and activities in elementary physical education, games days and sports tournaments. Requisites: PHED 200, PHED 210, PHED 330

PHED 449**Teaching Practice in Physical Education K-12****Six Credits**

Practical Teaching in Physical Education in the K-12 levels is the final phase of the teacher preparation program. It is an experience in which the student teacher runs all tasks of the profession. The student will do the teaching practice in accredited schools to get involved in the processes of teaching and learning of physical education in the k-12 levels. Applications for PHED 449 need the approval of all required professional and specialization course with a minimum grade of B in each course.

EXERCISE SCIENCE AND HEALTH PROMOTION**ESHP 101****Exercise Industry, Health Promotion, Leadership and Ethics****Three Credits**

Introduction to the study of: the industry of the exercise and health promotion. Examines the various programs of physical efficiency for the health promotion in the Government and private sectors, in Puerto Rico and United States, and like these define different roles professionals of this industry and aspects of leadership and ethical professional in health promotion and physical efficiency.

ESHP 201**Anatomy and Kinesiology Applied to the Physical Exercise****Three Credits**

Introduction to the study of concepts and fundamental principles of Anatomy and human Kinesiology applied to the design and prescription of physical exercise for health promotion programs.

ESHP 202**Exercise Physiology****Three Credits**

Introduction to the study of: concepts and principles of human physiology as fundamentals to understand effect of exercise on the body and health promotion. Requisites: ESHP 201

ESHP 203**Design and Prescription of Exercise Programs****Three Credits**

Evaluation guides, standards, protocols and current standards for the prescription and the development of programs of exercises, as they recommend professional groups in this field (American College of Sports Medicine, American Kinesiology Association)

ESHP 204**Exercises with Special Populations****Three Credits**

Assessment guidelines, standards, protocols and current standards recommended by professional groups for the development of programs of exercises with people who show special conditions or who require medical supervision (American College of Sports Medicine, American Kinesiology Association).
Requisites: ESHP 203

ESHP 300**Psychological Foundations of Exercise****Three Credits**

Introduction to the study of: physical exercise, the experience of exercise and its effect on emotional, mental health and quality of life of the participant. Emphasis on the subjective aspects and the psychological constructs that affect, motivation to participate or deserting programs and exercise routines.

ESHP 301**Managing and Teaching Classes of Exercises****Three Credits**

Theory and practice of teaching fitness classes as a personal trainer and group exercise instructor.

ESHP 302**Practical as Instructor and****Three Credits Trainer**

Supervised experience where the student is assigned to a program of physical efficiency for which assumes the role of personal trainer or instructor of exercise classes. Requisites: The approval of all required professional and specialization course.

ESHP 303**Management Programs of Physical Efficiency****Three Credits**

Study of management essential aspects in the administration of programs of physical efficiency and health; recruitment, supervision and evaluation of employees, customer's management,

documentation, management of risks and safety of employees and customers, the operation of the equipment and facilities and budget management.

ESHP 304

Evaluation of Physical Efficiency Programs

Three Credits

Study of models used to assess physical efficiency programs: evaluation of the achievement of objectives, evaluation for satisfaction and cost-effectiveness. Emphasis on the development of tools and techniques of data collection, data analysis and the drafting of the evaluation report.

ESHP 305

Practice in Administration of Physical Efficiency Programs

Six Credits

Professional supervised experience where the student is involved in the management and monitoring a physical efficiency program. Requisites: The approval of all required professional and specialization course

REED 110

First Aids

Three Credits

Study of the more common first aid for sports and other recreational physical activities in case of an accident or injuries. The course is oriented to enable the professional of the recreation to facilitate first aids in cases of accidents. Study of the human body, its operation and the roll of the professional of the recreation first aid.

REED 301

Camps Development

Three Credits

Study of origin and practices in developing camps in Puerto Rico. Discussion of camp concepts, camp activities, job positions, functions and program aspects such as programming, marketing, safety, budgeting and evaluation.

RECREATION AND SPORTS

REED 105

Introduction to Recreation and Sports Studies

Three Credits

Exploration of concepts, assumptions, philosophies and history of programs in recreation and sports education. Study of concepts of recreation, leisure and play.

REED 106**Recreation Governmental****Three Credits**

The study of recreation as the instrument for human development and social changes for communities with social disadvantages.

Requisites: REED 105

REED 107**Therapeutic Recreation****Three Credits**

The study of recreation as an instrument for the rehabilitation and human development with special populations with disabilities.

Requisites: REED 105

REED 108**Recreation Commercial and Private****Three Credits**

The study of recreation in the private and commercial sector, as a product for profit consumer.

Requisites: REED 105

REED 200**Recreation Program Planning****Three Credits**

Study of concepts, foundations and models in recreation program planning. Students examine the life cycle, social trends, needs assessment, program cost analysis, strategies for program implementation, and evaluation. Requisites: REED 105, REED 107

REED 205**Management of Recreation and Leisure Services****Three Credits**

Analysis of administrative concepts applied to recreation and leisure services. The study of administrator roles and responsibilities in recreation, leisure and sports. Includes aspects such as budgeting, marketing, financing, organizational structure, legal aspects, facility operations, maintenance, and crime prevention. Requisites: REED 105, REED 200

REED 210**Leadership and Supervision in Recreation and Leisure****Three Credits**

Basic concepts of group dynamics, leadership, and supervision related to employees and volunteers in recreation and leisure services. Requisites: EDUC 173, REED 205

REED 303**Parks and Natural Resources Planning and Administration****Three Credits**

Analysis of aspects related to planning, designing and managing parks and other outdoor natural resources used for recreation and leisure. Requisites: REED 105

REED 315**Legal Aspect of Sports and Physical Activities****Three Credits**

Study of legal issues and considerations dominant in the profession of recreation. Study of the legal aspects related to the provision of recreational services, monitoring programs, employees and property, neglect of duty, the development of risk management plans and legality in the hiring of employees. . Requisites: EDUC 173, REED 200

REED 320**Design and Management Recreation and Sports Facilities****Three Credits**

The study of the design and development of recreation and sports facilities and the implications in the program management and usage. Requisites: REED 200

REED 400**Assessment, Measurement and Evaluation in Recreation****Three Credits**

Analysis of concepts of assessment, measurement and evaluation in education and psychology and their application to the field of recreation and human behavior concerning leisure. Requisites: EDUC 173, REED 205

REED 410**Research Methods in Recreation and Leisure Studies****Three Credits**

Study and application of concepts, design and analysis of quantitative and qualitative research. Analysis of quantitative investigation emphasizing in experimental research, quasi-experimental research, correlation and survey research. In the study of qualitative investigation, the emphasis is in on concepts, designs and analysis of ethnographic research. Requisites: EDUC 173, EDUC 318, REED 105

REED 420**Internship I - Recreation Governmental****Six Credits**

Supervised field experience in recreation and sports. Students are assigned to an agency to develop, implement, evaluate, or manage recreation and sports programs. Requisites: Applications for REED 420

need the approval of all required professional and specialization course with a minimum grade of C in each course.

REED 425

Internship II- Recreation Commercial and Private

Six Credits

Supervised field experience in recreation and sports. Students are assigned to private and commercial organizations to develop, implement, evaluate, or manage recreation and sports programs. Requisites: Applications for REED 425 need the approval of all required professional and specialization course with a minimum grade of C in each course.

SPECIAL EDUCATION K - 12

SPED 210

History and Legal Foundations of Special Education

Three Credits

Study of the, theoretical and legal foundations of the special education. Analysis of history, the philosophical principles and theories that sustain the special education and that give bases for their practice. It includes the analysis of the state and federal laws that endorse the special education. It includes the study of document and of procedures and the study of cases of litigation in court in P. R. and E.U. Discussion of the main concepts of transition and assistive technology. Requisites: EDUC 204 - 280

SPED 303

Neurological Development, Sensory Functions and their Implications in Specific Learning Disabilities

Three Credits

A broad overview of the field of learning disabilities: definitions, characteristics, theories, diagnoses, and teaching strategies for children with learning disabilities. The normal development of children will serve as the basis for the study of the nervous system. Students will be exposed to maturation and neurological concepts of evolution and the laws that govern such processes. Reviews the relationship between neurological development, sensorial functions, and linguistic skills. Considers the abnormalities in these relationships in the integral development of the child, including emotional side effects. Teaches students the skills and information necessary to identify, diagnose, and establish intervention procedures.

Requisites: EDUC 204, EDUC 280, SPAN 114-115

SPED 320

Nature and Needs of Students with Mild Disabilities

Three Credits

Study of the general aspects of the characteristics of the children with mild disabilities and their psychological, emotional, social and educative necessities with this population. In addition, knowledge, practice and strategies of intervention are included on the roll that carries out the educator within the

area of Special Education, study of innovation practices, new tendencies and investigations in the area of Special Education including work in equipment and collaborative strategies. Requisites: EDUC 204-280

SPED 324

Preschool Education of Exceptional Children

Three Credits

Skills and techniques enabling students to develop and organize educational experiences for the exceptional child at the preschool level. Emphasis is on stimulating children's growth in motor development (fine and gross), reasoning, receptive and expressive language, visual perception, social and emotional development, self-help and cognitive development. Analysis of the capabilities of handicapped students who receive appropriate education in an unrestricted environment that motivates their integral development and exploits their learning potential. Includes review, analysis and study of early stimulation exercises for psychomotor development that may be adapted to the handicapped Preschooler. Requisites: EDUC 204, EDUC 280

SPED 326

Methodology, Innovative, Practice, Inclusion and Transition

Three Credits

It provides students with field experience in implementing effective teaching strategies, methodologies, innovative practices and areas of the curriculum and its application to children, youth and adults with disabilities. It emphasizes, in the preparation of teaching materials, activities, strategies, Individualized Education Program, educational intervention and individualized teaching in Special Education. Requisites: Educ. 204-280, Sped 320

SPED 390

Methodology for the Teaching of Mathematics in the Special Education

Three Credits

Analysis of methods used to identify learning difficulties in mathematics and its teaching implications. It includes the study of the informal and formal methods of teaching, the use of strategies, instructional adaptations and the application of the technology, including the assistive technology for differentiated instruction of mathematics. Analysis of the curricular content of the mathematics program for elementary, middle and high school level (K-12). Emphasis on assessment, measurement and evaluation strategies of learning for students with disabilities. Provides for the practice in diagnosis and intervention of learning needs as well as for the individual educational plan. Planning, selection and design of materials for the teaching of mathematics in the educational levels from kindergarten to twelfth with emphasis on the individualization of teaching. Requisites: SPED 326

SPED 391**Teaching Reading and Writing in Special Education for the Elementary Level****Three Credits**

Analysis of reading and writing learning disabilities and its implications in the teaching of students at the elementary level (K-6). Discussion of the implications of differentiated teaching methodology of Content Standards and Expectations of the Puerto Rico Department of Education, specifically in reading and writing at the elementary level (K-6th grade). Study of instructional adaptations such as teaching materials, teaching strategies, evaluation processes and technology for special education students who have difficulties in reading and writing. Requisites: SPED390, EDUC 204

SPED 392**Teaching Reading and Writing in Special Education for the Secondary Level****Three Credits**

Analysis of reading and writing learning disabilities and its implications in the teaching of students at the secondary level (7-12). Discussion of the implications of differentiated teaching methodology of Content Standards and Expectations of the Puerto Rico Department of Education, specifically in reading and writing at the secondary level secondary level (7-12). Study of instructional adaptations such as teaching materials, teaching strategies, evaluation processes and technology for special education students who have difficulties in reading and writing. Requisites: SPED390, SPED 391, EDUC 204

SPED 415**Diagnostic and Evaluation Techniques for Exceptional Children****Three Credits**

Preparation and use of tests and other evaluation instruments in a multidisciplinary approach to diagnose the exceptional child. Evaluation of skills and measurement processes to help students in the organization of daily planning, strategies, and curricular activities for teaching the exceptional child. Analysis and discussion of evaluation and measurement of the elementary school curriculum. Requisites: EDUC 204-280, SPED 326

SPED 451**Practice Teaching (Special Education k-12)****Six Credits**

In this Teaching Practice the student plays as teacher for planning and implementing real-world experiences of teaching and learning. This course offers students the opportunity to show and apply academic and psychosocial skills required for the special educator, such as planning strategies and differentiated instruction, use of official documents, classroom management as well as interviews and home visits, and the opportunity for the use of various assessment techniques for students with disabilities in grades K-12. This experience takes place under the supervision of a faculty supervisor and a cooperative special education teacher. The hours required in this course are stated by the Department of Education of Puerto Rico. Applications for SPED 451 require professional and specialization course approval and a minimum grade of B in each.

GENERAL EDUCATION

SPAN 114-115

Basic Spanish I and II

Six Credits

The Students of Education School, will study the history and evolution of the Spanish Language. Development of reading and writing skills. Vocabulary enrichment. Analysis and interpretation of reading using the following as a reference frame: vocabulary in context, main idea, and secondary idea, relationships of ideas, types of discourse, and types of language. Construction of the written message from the sentence to the paragraph.

ENGL 114-115

Basic English I and II

Six Credits

The students of Education School will emphasize in strengthening of basic reading comprehension and writing skills. An integrated language arts approach will be used; therefore, specific grammatical skills will also be developed along with oral communication and listening skills. The ability to organize one's thoughts, to express them simply and clearly, and to observe the standards and conventions of language usage will be developed. Short research projects will be developed through the integration of technology (individual, pair, or group work). Classes will meet three (3) hours weekly.

MATH 103-104

Math Teachers

Six Credits

These courses offers the opportunity to acquire skills necessary to apply in the solution of situations that appear in live. In addition, ample the operational range with its applicability to different professions. It develops skills of operations with real numbers and their applications. It also introduces basic skills in the field of geometry by its importance in the life.

MATH 119

Intermediate Algebra

Three Credits

This course offers the opportunity for students' education to acquire skills to apply the Real number system, equations and inequalities in one variable, linear graphs, systems of equations and their applications. Integrates different science concepts applying the scientific method. It establishes the relationship between science and technology.

SCIE 116**Integrated Science Teacher I****Three Credits**

The Students of Education School, will study the origin and development of the Universe, particularly that of planet Earth, and the origin and evolution of organisms. Students will study matter and energy concepts applied to systems. Various energy sources and uses are described as well as their environmental impact incorporating Puerto Rico's situations.

SCIE 117**Integrated Science Teacher II****Three Credits**

The Students of School Education, will integrate different science concepts applying the scientific method. It establishes the relationship between science and technology. Students will study the climate aspects of Earth in particular that of Puerto Rico. They will study the interdependent interactions between organisms, with the environment and the importance of conservation of the environment and biodiversity. They will study the human body as a system emphasizing health, nutrition and sexuality.

SOSC 113**Introduction to Social Sciences Survey Course****Three Credits**

The Students of School Education, will study and analyze the general principles and foundations for the social science disciplines: anthropology, sociology, psychology, economics and political sciences. Analysis of social problems.

SPAN 219**Advanced Writing****Three Credits**

This course offers the opportunity to acquire skills necessary to develop proficiency in the practical use of written language; current idiomatic Spanish. Provides practice in the more complex problems of sentence structure and usage and in theme writing analysis.

HUMA 111-112**Introduction to Western Culture I and II****Three Credits**

These courses offers the opportunity for student's education, to acquire skills for critical study of the humanity cultural evolution from the origin of the cities and the urban life until the modern society. Attention to the most important cultural events. Promotes understanding of the moral, social and cultural aspects of Puerto Rican society in the global context.

HIST 277**History of the United States****Three Credits**

The Students of School Education, will study the most important social, cultural, political and economic events in the history of the United States, from the colonial period to the present.

HIST 258**History of Puerto Rico****Three Credits**

The Students of School Education, will study and analyze of Puerto Rico's historical development from its beginnings to the present. Emphasis is given to the social, political, economic and cultural development of the island.

PSYC 125**General Psychology - Survey Course****Three Credits**

Survey course in general psychology. Study of basic principles, concepts and theories of individual and social behavior.

School of Health Sciences

SCHOOL OF HEALTH SCIENCES

Mission

The School of Health Sciences offers various programs related to the health professions. The mission of the School of Health Sciences is to contribute to the health and quality of life of a multicultural society, through academic excellence and offerings that meet the needs of society in general, thus expanding students' personal, professional, ethical and social growth. The School of Health Sciences has a policy of non-discrimination.

The School is characterized by its commitment to excellence in education, integration of technology, the provision of research experiences, community service, development of specific skills, and the use of information systems, bilingualism, and teamwork, through an interdisciplinary health team work approach.

The School's academic offerings promote the development of the teaching- learning process through critical thinking, clinical judgment, decision making, problem solving, and collaborative team work. These skills are within the context of the ethical-legal aspects of professional relations, and the value of life, health, and dignity of the whole person.

Vision

The School of Health Sciences aspires to be recognized as an academic leader in the areas of health promotion, health restoration, and illness prevention, both in and out of Puerto Rico, through the development of excellent undergraduate and graduate programs. The goal is to satisfy the needs of our health system

and to enhance the quality of life of our society in general. It is the goal of faculty, students and administration to share knowledge, competencies and experiences. The School will offer multidisciplinary services to groups with specific needs, as well as to the community in general, through collaborative groups and consortia, transcending cultural and geographical boundaries.

School Objectives

- To offer pertinent, high quality academic programs in order to enable our graduates to perform successfully in varied health scenarios.
- To contribute toward the training of health-care leaders engaged in their profession within the global context.
- To use technology effectively, in harmony with the advancement of science and informatics in all health disciplines.
- To develop social responsibility through the implementation and development of community service projects according to emerging needs involving faculty and students of the different academia programs.
- To sponsor proactive participation in the public policy formulation pertaining to health issues.
- To promote health related research and community service through a multidisciplinary approach immersed in local, regional and global needs.

DEPARTMENT OF NURSING

The Department of Nursing offers a Master's Degree in Nursing (MSN), an Associate Degree in Nursing (ADN) and a Bachelor's Degree in Nursing (BSN). The ADN & BSN programs prepare nurses to compete for first-level positions in direct care of clients. Upon completion of the program's requirements, students will be able to successfully take the test of the Nursing Licensing Board Examination in Puerto Rico. The faculty chose an eclectic framework for the organization of its Associate Degree in Nursing (ADN) and the Baccalaureate Degree in Nursing (BSN) curriculum.

The MSN prepares Clinical Nurse Specialists in Critical Care of the Adult, Critical Care of the Child, and Case Management, with a second role as nurse educators or nurse administrators. The MSN, BSN, and ADN Programs are accredited by ACEN (Accreditation Commission for Education in Nursing) 3343 Peachtree Road NE, Suite 850 Atlanta Georgia, 30326.

MISSION

The Department of Nursing is part of the Metropolitan University (UMET), a private institution of higher education. UMET offers educational opportunities to a multicultural society, in accordance with current and innovative technologies, and the challenges and opportunities offered by globalization.

The Department of Nursing promotes an environment of academic freedom, to facilitate faculty and student acquisition of knowledge. It strives to cultivate the attitudes and skills necessary for their professional development,

for the enhancement of the teaching-learning process, and for the satisfaction and successful employment of its graduates.

UMET's flexible admission policy provides accessibility to the Nursing department programs leading to associate and baccalaureate degrees, as well as Nursing certifications. These offerings are supported by special academic student services for a high quality educational experience.

The department encourages reflexive and intellectual curiosity and an attitude of commitment in its faculty and students, to promote the life-long professional development of knowledge and skills. The department also fosters an educational experience supported by creative and innovative teaching-learning methods and activities, and by the systematic evaluation of administrative and academic processes, and the outcomes of its graduates.

The following commitment statements complement the mission of the Nursing department:

1. To develop and maintain the curriculum design for the nursing programs and certification offerings, which reflect the integration of relevant principles and concepts, from nursing theories, from the natural and nursing sciences, and from the general education offerings.
2. To encourage and protect the freedom of administration, faculty, and students, to do research, experiment and publish in accordance with the university rules, policies and standards, and within the professional scope of practice.

3. To maintain the curricula of the Nursing Programs in response to current health care needs of society and economic, demographic and nursing education changes and patterns.

NURSING LABORATORY FACILITIES

The Nursing Department administers Simulation laboratory facilities at four sites; the main campus in Cupey, the Bayamón campus, the Aguadilla campus and the Jayuya campus. The Simulation labs are equipped with state-of-the-art simulation models: Sim-Man Essential, Sim-Man G, Sim-Baby, ALS/trauma model, and Noelle, the birthing simulator. Master's, Baccalaureate and Associate Degree Nursing students use these facilities throughout the academic year with the guide of the faculty and a simulation technician. Individual and small group tutoring is also provided during day and night sessions by laboratory technicians, nursing students' tutors and faculty.

STUDENT LEARNING OUTCOMES

Learning Outcomes of the Associate Degree Nursing Program

Outcome #1: Provide nursing care to the client system in structured health-care settings, consistent with the scope of practice as stated in the Puerto Rico Nursing practice Law.

Outcome #2: Function as a manager of care to individual clients and their families by setting priorities, planning and implementing holistic nursing care under the guidance and support of the nurse generalist.

Outcome #3: Practice within the ethical, legal and professional values and standards of nursing

practice; is committed to lifelong learning, and participate in professional nursing organizations.

Outcome #4: Use the nursing process within the context of the American Nurses Association as a framework for assessing, planning, implementing and evaluating standard individualized treatment plans for clients and their families, consistent with institutional policies.

Learning Outcomes of the Baccalaureate Nursing Program

Outcome #1: Provide nursing care to individuals, families and communities in structured and unstructured healthcare settings.

Outcome # 2: Coordinate and manage the nursing care of individuals, families and communities using principles of coordination, management, delegation, and collaborative leadership in the workplace.

Outcome # 3: Practice within the framework of the ethical, legal, and professional values and standards of practice; is committed to life-long learning, and participates in the profession.

Outcome # 4: Utilize the Nursing Process within the context of the American Nurses Association as a framework, to develop, implement and evaluate the nursing care plans for individuals, families and communities with common and complex health problems.

ADMISSION REQUIREMENTS

- High School Diploma or equivalent with a GPA of 2.5 or higher on a 4.0 scale

- Applicants must have taken the College Entrance Examination Board or SAT (if age under 25)

REQUIRED DOCUMENTS:

- Application for Admission
- Admission fee of \$15.00
- Certificate of immunizations (if under 21)
- Foreign students need student VISA
- Two (2) official transcripts from all universities attended
- Certificate negative conduct background check from the Puerto Rico Police Department (less than one month)

ADMINISTRATIVE STAFF

DR. LOURDES MALDONADO, MSN, RN

Dean
Full Professor
EdD, Interamerican University
MSN, University of Puerto Rico Medical Sciences Campus
BSN, Pontifical Catholic University of Ponce

DR. MAYRA FIGUEROA, CCC/SLP

Associate Dean
Full Professor
EdD, Interamerican University
MS, Speech/Language Pathology
University of Puerto Rico Medical Sciences Campus

DR. ZULMA SOTO, MSN, RN

Director, BSN & ADN Programs, Aguadilla
PhD, Catholic University
MSN, Catholic University
BSN, Interamerican University

DR. YANILDA RODRÍGUEZ, MSN, RN

Assistant Professor
Director, BSN and ADN Programs, Cupey
PhD, Capella University
MSN, University of Puerto Rico, Medical Sciences Campus
BSN, University of Puerto Rico, Medical Sciences Campus

NURSING FACULTY (Cupey, Bayamón, and Aguadilla)

ACEVEDO HECTOR

Instructor
MSN, Universidad Metropolitana
BSN, Universidad Metropolitana

ACEVEDO, MARITZA

Assistant Professor
PhD, Universidad de Málaga
MSN, Catholic University of Puerto Rico
BSN, Catholic University of Puerto Rico

ACEVEDO, VIRGEN

Instructor
MSN, Caribbean University
BSN, Centro de Estudios Multidisciplinarios

ACOSTA, MARGARITA

Instructor
MSN, UMET Bayamón
BSN, Interamerican University

BONILLA, MILAGROS

Assistant Professor
MSN, University of Puerto Rico
BSN, University of Puerto Rico

BERNAL, CLAUDIA

Instructor
MSN, University of Puerto Rico
BSN, Universidad Cooperativa de Colombia

CAMACHO, SANTOS

Instructor
MSN, University of Puerto Rico
BSN, Interamerican University

CARDONA, ELVIA

Instructor
MSN, University of Puerto Rico
BSN, University of Puerto Rico

CARRILLO, CARMEN

Instructor
MD, University of Arts and Technology
DNP, University of Arts and Technology
MSN, University of Puerto Rico

BSN, University of Puerto Rico

CORDERO, WANDA

Instructor

MSN, University of Puerto Rico

BSN, University of Puerto Rico

CORDERO, DIMARYS

Instructor

MSN, Inter American University

BSN, University of Puerto Rico

CORREA, IRMA

Assistant Professor

MSN, University of Puerto Rico

BSN, Catholic University of Puerto Rico

CRUZ, ELIZABETH

Instructor

MSN, Universidad Metropolitana

BSN, Universidad Metropolitana

CRUZ, IRIS

Instructor

MSN, UMET Bayamón

BSN, Interamerican University

ELÍAS, OLGA

Instructor

MSN, University of Puerto Rico

BSN, University of Puerto Rico

FONSECA, MADELINE

Assistant Professor

PhD, Universidad de Málaga

MSN, University of Puerto Rico

BSN, University of Puerto Rico

FORT, KARLA

Instructor

MSN, John Dewey University

BSN, Colegio Universitario de San Juan

GARCÍA, ANA C.

Instructor

MSN, University of Puerto Rico

BSN, Interamerican University

GÓMEZ YESSÉNIA

Instructor

MSN, Universidad del Turabo

BSN, Universidad Adventista de las Antillas

GOICOCHEA, ELSIE

Assistant Professor

MSN, University of Puerto Rico

BSN, University of Puerto Rico

LÓPEZ, CARMEN

Instructor

DNP, University of Massachusetts, Amherst

MSN, University of Puerto Rico

BSN, University of Puerto Rico

MALDONADO, JANETTE

Instructor

MSN, Caribbean University

BSN, Universidad Metropolitana

MARRERO REYNALDO

Instructor

MSN, John Dewey University

BSN, Columbia University

MARRERO, ROSA L.

Instructor

MSN, Caribbean University

BSN, Dewey University

MENDEZ, LUZ E.

Instructor

MSN, Catholic University of Puerto Rico

BSN, University of Puerto Rico

MÉNDEZ, RAMONA

Instructor

MSN, Catholic University of Puerto Rico

BSN, Catholic University of Puerto Rico

MERCADO, MARÍA

Instructor

MSN, University of Puerto Rico

BSN, University of Puerto Rico

MESTRE, LUISA

Instructor

PhD, Universidad de Málaga

MSN, University of Puerto Rico

BSN, University of Puerto Rico

MOJICA, MAGALY

Instructor

MSN, University of Puerto Rico

BSN, University of Puerto Rico

MORALES, BELIA

Instructor

MSN, University of Puerto Rico

BSN, Catholic University of Puerto Rico

NEGRÓN, ERICKA

Instructor

MSN, Turabo University

BSN, Antilles Adventist University

PEDROZA, MAYRA

Associate Professor

PhD, Walden University

MSN, University of Puerto Rico

MA, Webster University

BSN, University of Puerto Rico

PEÑA, LUIS

Instructor

MSN, University of Puerto Rico

BSN, University of Puerto Rico

PLATA, GRISEL

Assistant Professor

PhD, Interamerican University

MSN, Catholic University of Puerto Rico

BSN, Catholic University of Puerto Rico

PIZARRO, NYVIA

Instructor

MSN, University of Puerto Rico

BSN, University of Puerto Rico

QUINTANA, MAGDALENA

Instructor

MSN, Catholic University of Puerto Rico

BSN, Antilles University

RAMOS MILAGROS

Instructor

MSN, University of Puerto Rico

BSN, University of Puerto Rico

RIVERA ÁNGEL

Instructor

MSN, University of Puerto Rico

BSN, University of Puerto Rico

RIVERA, ELIOT

Instructor

MSN, Columbia University

BSN, Columbia University

RIVERA TORRES, LIZANDRA

Instructor

MSN, University of Puerto Rico

BSN, Universidad Central Bayamón

RODRÍGUEZ, IVONNE

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MSN, University of Puerto Rico
BSN, University of Puerto Rico

ORTIZ ZAYAS, JONELL

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MSN, UMET Bayamón
BSN, Interamerican University

RODRÍGUEZ, ELIZABETH

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MSN, Dewey University
MSN, Case Management, UMET Bayamón
BSN, Colegio Universitario SJ

ROMÁN, BRUNILDA

Instructor
MSN, University of Puerto Rico
BSN, University of Puerto Rico

ROSA, JUAN

Instructor
MSN, Catholic University of Puerto Rico
BSN, Interamerican University

RHODES, KEMLEY

Instructor
MSN, University of Phoenix
BSN, Caribbean University

RIVERA, ÁNGEL

Instructor
MSN, University of Puerto Rico
BSN, University of Puerto Rico

RIVERA, REINA

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BSN, University of Puerto Rico

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BSN, University of Puerto Rico

ROSADO, ROSA

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BSN, University of Puerto Rico

SÁNCHEZ, VIONETTE

Instructor
MSN, University of Puerto Rico
BSN, University of Puerto Rico

SANTANA, BRUNILDA

Instructor
MSN, University of Puerto Rico
BSN, University of Puerto Rico

SANTANA, CONCHITA

Instructor
MSN, University of Puerto Rico
BSN, University of Puerto Rico

SANTIAGO, AMARILYS

Instructor
MSN, University of Puerto Rico
BSN, University of Puerto Rico

SERRANO, HAYDEE

Instructor
MSN, University of Puerto Rico
BSN, University of Puerto Rico

SOTO, MARYNELLY

Instructor
MSN, University of Puerto Rico
BSN, Interamerican University

TORRES, JOHAN

Instructor

MSN, University of Puerto Rico

BSN, University of Puerto Rico

VALLEJO LETICIA

Instructor

MSN, Universidad Metropolitana

BSN, Universidad Metropolitana

VENTURA, MARÍA

Instructor

MSN, Universidad Metropolitana

BSN, University of Puerto Rico

VILLANUEVA, BEATRIZ

Instructor

MSN, Universidad Metropolitana

BSN, Central University of Puerto Rico

VILLANUEVA, MARÍA

Instructor

MSN, Catholic University of Puerto Rico

BSN, Interamerican University

ASSOCIATE DEGREE IN NURSING

70 Credits	Credits
General Education Courses	32
Nursing Courses	38

General Education Courses		32
FYIS 101	First Year Induction Seminar	3
BIOL 106	Human Anatomy and Physiology	4
BIOL 105	Microbiology	4
MATH 101	Mathematical Reasoning I	3
PSYC 123	General Psychology Survey Course	3
SPAN 101-102 or SPAN 103-104 or SPAN 105-106	Introductory Spanish Language Course - Basic Level Introductory Spanish Language Course - Intermediate Level Introductory Spanish Language Course - Advanced Level	6
ENGL 101-102 or ENGL 103-104 or ENGL 105-106	Introductory English Language Course - Basic Level Introductory English Language Course - Intermediate Level Introductory English Language Course - Advanced Level	6
COSC 111	Computer Literacy	3

Specialization Courses		38
NURS 101	Nursing Process and Basic Skills	5
NURS104	Fundamentals of Nursing in Health Promotion	3
NURS 107	Nursing Process Applied to the Client-system with Psychosocial Alterations	5
NURS 203	The Nursing Process Applied to Adult Care I	6
NURS 204	The Nursing Process Applied to Adult Care II	6
NURS 208	The Nursing Process Applied to Children and Adolescents	5
NURS 240	Pharmacology and Dosage Calculation Applied to Health Science	3
NURS 251	Nursing Care of the Mother, Neonate and Family	5

BACHELOR OF SCIENCES IN NURSING

125 Credits	Credits
General Education Courses	51
Nursing Courses	68
Electives	6

General Education Courses		51
BIOL 106	Human Anatomy and Physiology	4
CHEM 105	Health Chemistry	4
BIOL 105	Microbiology	4
PSYC 123	General Psychology Survey Course	3
MATH 101-102	Mathematical Reasoning I-II	6
COSC 111	Computer Literacy	3
SPAN 101-102	Introductory Spanish Language Course - Basic Level	6
or SPAN 103-104	Introductory Spanish Language Course - Intermediate Level	
or SPAN 105-106	Introductory Spanish Language Course - Advanced Level	
ENGL 101-102	Introductory English Language Course - Basic Level	6
or ENGL 103-104	Introductory English Language Course - Intermediate Level	
or ENGL 105-106	Introductory English Language Course - Advanced Level	
HUMA 101-102	World Cultures	6
SOSC 103	Introduction to the Social Sciences Survey Course	3
HIST 253	History of Puerto Rico	3
FYIS 101	First Year Induction Seminar	3

Nursing Courses		68
NURS 105	Introduction to the Nursing Professional Role	3
NURS 230	Nursing Process	5
NURS 231	Adult Health Assessment	3
NURS 232	Pathophysiology	3
NURS 240	Pharmacology and Dosage Calculation Applied to Health Science	3
NURS 301	Nursing Care of the Childbearing Family during the Reproductive Cycle	5
NURS 305	Mental Health and Psychiatric Nursing	5
NURS 310	Nursing Care of the Adult-Part I	5

Nursing Courses		68
NURS 311	Nursing Care of the Adult-Part II	5
NURS 320	Application of Basic Principles of Research in the Nursing Practice	3
NURS 404	Nursing Care of Children	5
NURS 405	Nursing in Community Health	5
NURS 410	Nursing Leadership and Management	3
NURS 412	Nursing Care of the Adult III	5
NURS 420	Practicum (Integrated Clinical Nursing)	6
NURS 421	Nursing Board Review	4
Electives		6

CERTIFICATION IN ONCOLOGY NURSING (POST-BSN)

15 Credits	Credits
Nursing Courses	15

Nursing Courses		15
NURS 513	Oncology Nursing I	4
NURS 514	Oncology Nursing II	4
NURS 515	Pharmacology in Oncology Nursing	4
NURS 516	Practicum in Oncology Nursing	3

CERTIFICATION IN CASE MANAGEMENT (POST-BSN)

15 Credits	Credits
Nursing Courses	15

Nursing Courses		15
NURS 501	Introduction to Case Management	4
NURS 502	Case Management I	4
NURS 503	Case Management II	4
NURS 504	Practicum in Case Management	3

COURSES DESCRIPTIONS

NURS 101

Nursing Process and Basic Skills

Five Credits

Initiates students in their roles and competencies as a member of the health team. The expected program outcomes, the conceptual framework and the student learning outcomes are discussed. Emphasis is given to Betty Newman concepts of client system, environment, wellness-illness continuum, stressors, and prevention levels. Student is introduced to the nursing process, communication basic skills, safety and security, nutrition, teaching/learning, critical thinking, organ donation, cultural diversity, health disparity, social determinants of health, aseptic measures and necessary skills for the therapeutic interventions with the adult and geriatric client in a variety of structured scenarios. Three theory hours and six laboratory hours per week. Requisites: BIOL 106 concurrent.

NURS 104

Fundamentals of Nursing in Health Promotion

Three Credits

Student is exposed to the nursing program model, principles and theories of nursing practice with the young adult, middle age adult, and geriatric client through the stages of growth and development. The evolution of the profession from the beginning of time to current era is studied. Ethical-legal aspects regarding organ donation, abortion, negligence, delegation, and others are highlighted as well as the values that define and support the profession. Nola Pender Model about health promotion and the levels of prevention: primary prevention (such as nutrition instructions and others), secondary and tertiary of the Betty Neuman Model are discussed. The following concepts are introduced: communication, dimensions and practice standards of the nursing profession, national safety measures, Healthy People 2020, cultural diversity, social determinants and health disparities. Three hours theory weekly. Requisites: BIOL 106, NURS 101

NURS 105

Introduction to the Nursing Professional Role

Three Credits

In this course the conceptual framework, mission and learning outcomes of the student and objectives of the nursing program are discussed and analyzed. The history and development of the profession, nursing theories, dimensions of the nursing profession, communication, leadership, teaching, critical thinking, cultural diversity, health disparities, organ donation, evidence based research and its importance for the nursing care of the client system are discussed. Emphasis is given to ethical legal aspects, standards and regulations of the nursing practice and the basic elements of health care such as Nola Pender's health promotion model and Betty Neuman's prevention levels: primary, secondary and tertiary. Three hours theory weekly. Requisites: BIOL 106

NURS 107**Nursing Process Applied to the Client-system with Psychosocial Alterations****Five Credits**

The course addresses the history and the evolution of psychiatric nursing. Integrates communication skills as a therapeutic modality and its relevance in the interventions with the client-system with psychosocial alterations. The application of the nursing process in the clinical practice is analyzed. The course prepares the student for the identification of psychosocial alterations affecting the client-system using NANDA and the DSM V. Mental alterations in the client system with disabilities are discussed. The influence of culture, cultural diversity and cultural sensibility in the care of client-system and the community is analyzed. Three theory hours and six laboratory hours per week. Requisites: BIOL 106 and NURS 101. NURS 104 concurrent.

NURS 203**The Nursing Process Applied to Adult Care I****Six Credits**

Focuses on the care of young, middle age, and the geriatric adults with invasion of complex stressors to the flexible lines of defense, normal and of resistance. The nursing process is applied to the client system response with internal and external stressors in their continue well-being that affects the variables and functional patterns. Emphasis is given to the client system instability in the defense and protection, fluid balance, electrolyte and acid base, activity-exercise and neurologic regulation. Considers the management of the client with pain, cancer and perioperative experience. The concepts of nutrition, cultural diversity and health disparity, organ donation as well as the social determinants of health are addressed. Focusses on the primary, secondary, and tertiary prevention as presented by Betty Neuman to strengthen the lines of defense and resistance of the client system and the levels of health promotion as Nola Pender. The roles and responsibilities of the Associate Nurse are integrated throughout the course. Four hours theory weekly and six hours laboratory weekly. Requisites: NURS 101, NURS 104, NURS 107, and BIOL 106. NURS 240 concurrent, NURS 251 concurrent.

NURS 204**The Nursing Process Applied to Adult Care II****Six Credits**

This course focuses on the care of young, middle age, and the geriatric client with invasion of complex stressors to the flexible lines of defense, normal and of resistance. The nursing process is applied to client system response with internal and external stressors in their continued health- illness that affect the variables and their functional patterns. Emphasis is given to the client system instability in sensory and chemical regulation, oxygenation, nutrition, and intestinal and urinary elimination. The concepts of nutrition, cultural diversity and health disparity, organ donation as well as the social determinants of health are addressed. Focusses on the primary, secondary, and tertiary prevention of Nola Pender and disease prevention levels as presented by Betty Neuman to strengthen the lines of defense and resistance of the client system. The roles and responsibilities of the Associate Nurse are analyzed throughout the course. Four hours theory weekly and six hours clinical laboratory weekly. Requisites: NURS 101, NURS 104, NURS 107, BIOL 106, BIOL 105, NURS 203. NURS 251, and NURS 240. NURS 208 concurrent.

NURS 208**The Nursing Process applied to Children and Adolescents****Five Credits**

Provides students with concepts of pediatric client system from infancy through adolescence, environmental stress, wellness and disease, health promotion as seen by Nola Pender, disease prevention as seen by Betty Neuman, nutrition, cultural diversity, disparity and social determinants of health. Nursing considerations in the perioperative process and organ donation in pediatric clients are discussed. Develops the professional roles and skills of the Associate Degree Nurses, techniques and communication skills based on evidence to work with children and adolescents. The nursing process is utilized to promote the welfare of children and adolescents with instability in physiological, psychological, sociocultural, developmental and spiritual variables. Three hours of theory weekly and six hours of clinical laboratory weekly. Requisites: NURS 101, NURS 104, NURS 107, BIOL 106, BIOL 105, NURS 203, NURS 251, and NURS 240. NURS 204 concurrent

NURS 230**Nursing Process****Five Credits**

Students are introduced to the basic principles and skills of nursing. Emphasis is given to the concepts of nutrition, organ donation, evidence-based practice, principles and skills of medical and surgical asepsis in the care of the adult and geriatric client system. Social determinants, cultural diversity, and disparities in health care are analyzed. Students are initiated to the professional roles of nursing: provider of care, manager/coordinator, and member of the profession. Theory content and nursing skills are interrelated to provide nursing care in health promotion and illness prevention. The nursing process is used to organize and plan therapeutic nursing interventions with the healthy client system and with the client system with instabilities in their basic structure, their variables (physiological, psychological, sociocultural, developmental and spiritual) and their functional health patterns. Students are introduced to the decision making process, the use of critical thinking, ethical legal aspects, therapeutic communication skills, and interpersonal relationships while intervening with the client system. Three hours theory weekly and six hours clinical laboratory weekly. Requisites: BIOL 106 and NURS 105. BIOL 105 concurrent, NURS 231 concurrent, NURS 232 concurrent

NURS 231**Adult Health Assessment****Three Credits**

Initiates student in the health assessment of client system adult and geriatric and their reactions to environmental stressors. Emphasis is given to the health history and physical assessment through the integration of critical thinking, functional patterns and evidence based practice. Integrates the aspects of cultural diversity, disparity and social determinants of health. Effective communication skills, interview technics, ethical-legal principles, nutritional status and organ donation are also addressed. Two hours theory per week, three clinical laboratory hours per week. Requisites: BIOL 106 and NURS 105. BIOL 105 concurrent, NURS 230 concurrent, NURS 232 concurrent.

NURS 232**Pathophysiology****Three Credits**

Introduces student to the concepts and specific process of the instability in the basic structure and physiological variables of the adult and geriatric client system. Includes the reaction of the environmental stressors. Cellular structure is studied, genetics in the development of diseases and nutritional considerations. Discusses the most common diseases that affect the functional patterns of health, clinical manifestations and epidemiological aspects. Disease is studied considering the cultural diversity, disparity and the impact of social determinants of health. Three-hour theory per week. Requisite: BIOL 106 and NURS 105. BIOL 105 concurrent, NURS 230 concurrent, and NURS 232 concurrent.

NURS 240**Pharmacology and Dosage Calculation Applied to Health Science****Three Credits**

Provides student the knowledge and skills related to pharmacology and dosage calculation of medications. Emphasis is given on how the nutritional aspects and culture influence pharmacokinetics in the client system adult and geriatric. Ethical-legal aspects are studied as well as terminology related to dosage calculation and classification of medications. The impact of disparity of the social determinants of health in the administration of medications are discussed. Three-hour theory weekly. Requisite: BIOL 106 and NURS 105. BIOL 105 concurrent, NURS 230 concurrent, NURS 232 concurrent.

NURS 251**Nursing Care of the Mother, Neonate and Family****Five Credits**

In this course the nursing process is utilized to introduce students to the care of the mother, neonate and family. Pre-conception, pregnancy, childbirth and postpartum stages are discussed, including complications. The assessment and nursing care with the healthy and high-risk neonate is analyzed. Family planning, nutrition, disparity, cultural diversity, social determinants of health, perioperative process as well as organ donation are addressed. Emphasis is given to health promotion by Nola Pender and aspects of prevention by Betty Neuman in the nursing care of the pregnant family. Basic nursing skills, communication principles and concepts of intervention with the client system are applied. Emphasis is given to the development of critical thinking, and therapeutic interventions when caring for the pregnant family in different health scenarios. Three hours of theory weekly and six hours of clinical laboratory weekly. Requisites: NURS 101, NURS 104, NURS 107, BIOL 105, and BIOL 106. NURS 240 concurrent, NURS, 203 concurrent.

NURS 301**Nursing Care of the Childbearing Family during the Reproductive Cycle****Five Credits**

Introduces students to the fundamental concepts related to the reproductive cycle: sexuality, family planning, fertility versus infertility, holistic approach focused on the client system, pregnancy, intrapartum, newborn and postpartum. Integrates the basic concepts of nutrition, cultural diversity, and

social determinants of health, perioperative and organ donation that affects the pregnant client, her family and the newborn. Emphasis is given to health promotion as described by Nola Pender and prevention aspects as presented by Betty Neuman in the nursing care of the pregnant woman and her family. Addresses the nursing process, therapeutic communication skills, research and therapeutic intervention in nursing as an essential tool for critical thinking in the care of the mother and newborn. Also includes complications during pregnancy, childbirth, postpartum and newborn of high risk. Different health scenarios are selected for experience acquisition such as community and hospital focused in the nursing process in caring for clients and families of all age groups experiencing pregnancy, labor and delivery, and care of the neonate. Three hours weekly of theory and six hours of clinical practice weekly. Requisite: BIOL 106, BIOL 105, NURS 105, NURS 230, NURS 231, NURS 232, NURS 240, NURS 305, NURS 310, and CHEM 105. NURS 320 concurrent, and NURS 311 concurrent.

NURS 305

Mental Health and Psychiatric Nursing

Five Credits

In this course the students discuss the history of psychiatric nursing. Integrates the basic concepts for the development of a healthy person. Integrates the nursing process in theory and practice. Clinical practice includes inpatient and outpatients in psychiatric units, and community mental health centers. Integrates communication skills as a therapeutic modality. Concepts such as: culturally sensitive nursing care, cultural diversity, the influence of culture on the client, family and community support system are addressed. NANDA diagnosis the DSM V are used in the nursing care of psychiatric client system. Mental health disorders and psychic disabilities in the client-system are discussed. Three theory hours per week, six laboratory hours per week. Requisites: BIOL 106, BIOL 105, NURS 105, NURS 230, NURS 231, NURS 232, NURS 240, and CHEM 105. NURS 310, concurrent.

NURS 310

Nursing Care of the Adult - Part I

Five Credits

The Nursing Process is used as a tool to solve health problems in the context of the standards of practice of the American Association of Nursing, in the care of young adult, middle age, and geriatric client system. The adult health client system assessment is performed using as reference the functional patterns of Marjorie Gordon. Student is initiated in the nursing practice basic concepts in medical surgical situations such as: homeostasis, stress, cellular adaptation, transcultural nursing, genetics perspectives, chronicity, disability, rehabilitation and organ donation. Emphasis is given to the instability of the following variables of the client system: physiologic, sociocultural, development and spiritual. Management of client with perioperative experience, oncology, pain management and management of the infectious process. Emphasis is given to the health promotion interventions and primary, secondary and tertiary prevention to attain, maintain and restore wellness of adult and geriatric client system. The roles and responsibilities of the generalist nurse are strengthened through, theoretical content, simulation and clinical practice. Three hours of theory weekly and 6 hours of clinical laboratory weekly. Requisites: BIOL 106, BIOL 105, NURS 105, NURS 230, NURS 231, NURS 232, NURS 240, and CHEM 105. NURS 305 concurrent.

NURS 311**Nursing Care of the Adult - Part II****Five Credits**

The Nursing Process is used as a critical thinking evidenced-base tool in the care of the young and middle adult, as well as, the geriatric client system, with instability of activity-exercise, (respiratory-cardiovascular), nutritional-metabolic (gastrointestinal), elimination (urinary-intestinal), sexuality-reproduction (reproductive) functional health patterns. The student can apply the principles and skills of the peri-operative process and organ donation, while planning and implementing nursing interventions. Health promotion strategies focuses on lifestyle choices to prevent illness and strives toward high level wellness. Primary prevention strategies, such as immunizations and nutritional instruction are considered; secondary and tertiary prevention strategies are emphasized to attain, restore, or maintain the client system wellness. As clinical leaders, the student nurses approach the client system health from a holistic perspective, including the impact of social determinants, disparities issues and cultural diversity; to select interventions and actions to address them. Collaborates with the transdisciplinary group in the client system nursing care. The roles and competencies of the generalist nurse are strengthened throughout the course. Three hours theory per week and six hours clinical laboratory per week. BIOL 106, BIOL 105, NURS 105, NURS 230, NURS 231, NURS 232, NURS 240, and CHEM 105. NURS 301 concurrent, NURS 320 concurrent.

NURS 315**Ethical-legal Aspects in Nursing (elective)****Three Credits**

Provides students the opportunity of acquire knowledge and comprehension of relevant legal aspects in health care and the impact in the nursing practice with client system in all growth and development cycles. Considers theories and ethical principles of nursing, values, moral aspects, ethical dilemmas, Nursing Code of Ethics and the Standards of Nursing Practice. Emphasize regulations, and contractual agreements of the nursing practice, negligence and malpractice. The student has the opportunity to discuss ethical and legal aspects of the nursing practice in a variety of health scenarios, ethics issues of client system, cultural diversity, organ donation, diversity, disparity and social determinants of health, living wills, euthanasia, and assisted suicide among others.

NURS 320**Application of Basic Principles of Research in Nursing Practice****Three Credits**

Provides students the opportunity to explore the research process and apply basic principles of statistics. The scientific method and the use of different electronic sources in the literature review are analyzed. Students design a research proposal. Emphasis is given to ethical legal aspects, and critical analysis of the skills that the student should develop to be a consumer of the research results. Three hour of theory per week. Requisites: BIOL 106, BIOL 105, NURS 105, NURS 230, NURS 231, NUSR 232, NURS 240, NURS 305, and NURS 310. NURS 301 concurrent and NURS 311 concurrent.

NURS 404**Nursing Care of Children****Five Credits**

The student utilizes principles and concepts relevant to the child growth and development from the infancy through adolescence. Emphasis is given to the concepts of: health promotion and illness prevention, nutrition, cultural diversity, disparity and social health determinants, as well as wellness restoration of the child with instability in the following variables: physiological, psychological, sociological, sociocultural, developmental and spiritual. Principles and nursing skills are applied in the client system with experiences in perioperative process and organ donation. Utilizes the nursing process for the management of the physiopathology through in an evidence based approach implementing communication skills. Professional roles development (provider of care, manager/coordinator and member of the profession) is addressed. Three hours of theory per week and six hours of clinical laboratory per week. Requisites: BIOL 106, BIOL 105, NURS 105, NURS 230, NURS 231, NUSR 232, NURS 240, NURS 310, NURS 311, NURS 305, NURS 320, NURS 301, and CHEM 105. NURS 405 concurrent and NURS 412 concurrent.

NURS 405**Nursing in Community Health****Five Credits**

A community based course with emphasis on providing holistic care to the client system in primary, secondary and tertiary levels of prevention throughout the life cycle. The course applies the foundation and principles of the delivery of health care, expanded roles, and case management in the independent practice of nursing. Emphasis is given to the prevention of illness, the promotion and maintenance of health in the client systems, development of the teaching-learning process, critical thinking skills, communication, leadership, and coordination of care. The principles of epidemiology and research are analyzed and applied in the therapeutic interventions with client system. Knowledge of social determinants of health is essential to community health nursing. Social determinants of health include: economic status of individuals and families, economic health of the community and employment statistics, among others. Three hours of theory weekly and six hours of clinical laboratory. Requisites: BIOL 106, BIOL 105, NURS 105, NURS 230, NURS 231, NUSR 232, NURS 240, NURS 310, NURS 311, NURS 305, NURS 320, NURS 301, and CHEM 105. NURS 404 concurrent and NURS 412 concurrent.

NURS 410**Nursing Leadership and Management****Three Credits**

Provides students with the knowledge and an appreciation of aspects related to leadership and management in nursing. Critical thinking is utilized to enhance discussions, group dynamics, and written and oral activities related to the course content. Accountability and leadership roles of the nurse are discussed as well as, the importance of continuing education and advanced studies for the nurse as a professional. Communication skills and critical thinking skills are promoted as essential for the professional nurse. Three hour of theory weekly. Requisites: BIOL 106, BIOL 105, NURS 105, NURS 230, NURS 231, NUSR 232, NURS 240, NURS 310, NURS 311, NURS 305, NURS 301, NURS 320, NURS 404, NURS 405, NURS 412, and CHEM 105. NURS 420 concurrent and NURS 421 concurrent.

NURS 412**Nursing Care of the Adult III****Five Credits**

The nursing process is used as a critical thinking tool in the care of the young middle adult, and the geriatric client system, with instability of cognitive-perceptual, (sensorial & neurological), activity and exercise (musculoskeletal) functional health patterns. Nursing care of clients in emergency and critical care scenarios is introduced at this level. The student can apply the principles and skills of the peri-operative process and organ donation, while planning and implementing nursing interventions. Health promotion strategies focuses on lifestyle choices to prevent illness and strives toward high level wellness. Primary prevention strategies, such as immunizations and nutritional instruction are considered; secondary and tertiary prevention strategies are emphasized to attain, restore, or maintain the client system wellness. As clinical leaders, the student nurses approach the client system health from a holistic perspective, including the impact of social determinants, disparities issues and cultural diversity; to select interventions and actions to address them. Collaborates with the transdisciplinary group in the client system nursing care. The roles and competencies of the generalist nurse are strengthened throughout the course. Three hours of theory weekly and six hours of clinical laboratory per week. Requisites: BIOL 106, BIOL 105, NURS 105, NURS 230, NURS 231, NUSR 232, NURS 240, NURS 310, NURS 311, NURS 305, NURS 320, NURS 301, and CHEM 105. NURS 404 concurrent and NURS 405 concurrent.

NURS 420**Practicum (Integrated Clinical Nursing Practice)****Six Credits**

Includes a component of clinical integrated practice and seminar. The clinical integrated practice offers the student an opportunity to apply, analyze and evaluate the management of nursing in the client system through the stages of growth and development. Emphasis is given to critical thinking in the utilization of the nursing process. The experiences are designed in structured and non-structured scenarios where students can implement health promotion and illness prevention interventions. In the seminar component the students have the opportunity to present and analyze clinical cases addressed in the clinical practice applying quality improvement as standards and guides of the nursing practice. Emphasize is given to the transition to the professional role. The concepts: nutrition, organ donation, disparity, social determinants of health and cultural diversity are discussed with the purpose of providing an integral nursing care to client system. Twelve hours of clinical practice weekly and two hours of seminar weekly. Requisites: BIOL 106, BIOL 105, NURS 105, NURS 230, NURS 231, NUSR 232, NURS 240, NURS 310, NURS 311, NURS 305, NURS 301, NURS 320, NURS 404, NURS 405, NURS 412, and CHEM 105. NURS 410 concurrent and NURS 421 concurrent.

NURS 421**Nursing Board Review****Four Credits**

Reviews and integrates the scientific knowledge of the nursing profession with emphasis on common health instability of the client system during life cycle in the disciplines of: medicine and surgery, mental health, pediatrics, maternity, neonatal, and geriatrics. Concepts of health promotion as presented by

Nola Pender and prevention of diseases by Betty Neuman, nutrition, community health and leadership in nursing as well as, cultural diversity, disparity and social determinants of health. Provides the strategies and contents for the students to get prepared to take the state board. Four hours of theory weekly. Requisites: BIOL 106, BIOL 105, NURS 105, NURS 230, NURS 231, NUSR 232, NURS 240, NURS 310, NURS 311, NURS 305, NURS 301, NURS 320, NURS 404, NURS 405, NURS 412, and CHEM 105. NURS 420 concurrent and NURS 410 concurrent.

CERTIFICATION IN CASE MANAGEMENT

NURS 501

Introduction to Case Management

Four Credits

This course introduces the student to the perspectives and development of a case manager. Students will learn the role of a case manager in a specialized healthcare environment and the cultural and political dynamics in healthcare organizations. Internal and external forces that impact distribution systems are analyzed. Emphasizes community support resources, healthcare organizations as corporations, utilization management, ethical and legal issues, public policies and legislation, and discharge planning. Four hours theory weekly. Requisites: BSN degree.

NURS 502

Case Management I

Four Credits

This course help students understand the management of nursing services and the complex issues related to different departments. Marketing strategies, financial management practices, healthcare costs, budgeting considerations - particularly copy reimbursement and Total Quality Management are analyzed. Emphasizes the development of case manager skills, such as: leadership, problem solving, and decision making, communication, and teamwork negotiation skills. Four hours theory weekly. Requisites: NURS 501, NURS 503 Concurrent

NURS 503

Case Management II

Four Credits

This course allows student learn the processes and models of case management nursing. Screening of patients and services; estimate of family's needs; management of cases in progress; and development of clinical pathways are analyzed. Patient's discharge planning including education of the patient and family, evaluation of the patient's response to treatment and management based on analysis of variables is addressed. Four hours theory weekly. Three hours theory weekly Requisites: NURS 501, NURS 502 Concurrent.

NURS 504**Practicum in Case Management****Three Credits**

This practice provides the student the opportunity to explore, examine and expand the theories on case management in an organizational environment. The participants will practice in different clinical settings and conduct shadowing, which will offer them the opportunity to analyze, synthesize and integrate their knowledge and to evaluate the effectiveness of the practice as future case managers. The student will practice, design their objectives, plan the nursing care, and evaluate their learning experiences. Twelve hours clinical practice weekly. Requisites: NURS 501, NURS 502, NURS 503

CERTIFICATE IN ONCOLOGY NURSING**NURS 513****Oncology Nursing I****Four Credits**

This is a theoretical course that provides students essential concepts and theories of the oncological nurse role using the nursing process as guide. Growth and development, prevention, early detection of cancer, risk factors, and diagnostic and treatment methods are discussed. Emphasis is given to the different modalities of treatment and technological advances. The standard of practice of the oncology nurse are analyzed. Students will learn how to use results of epidemiology for the surveillance, detection, and prevention of cancer as well as the roles of a professional nurse certified in oncology: leader, educator, care manager and investigator. Treatment modalities are also discussed physical support, nutrition, chemotherapy, radiotherapy and bone marrow transplant. Four hours of theory weekly. Requisites: BSN degree.

NURS 514**Oncology Nursing II****Four Credits**

This theoretical course emphasizes the roles of oncological nursing as: caregiver, coordinator and care manager according values and ethical and legal aspect established in the standards of nursing practice. The nursing process is used as the main tool to provide specialized nursing care to cancer patients. Emphasizes concepts such as self-care, interdisciplinary teamwork and a holistic evaluation of the cancer patient. History taking and physical examination are emphasized to identify the signs and symptoms of the disease and the impact of cancer in other health conditions. Studies specific cancer per system as well as the signs and symptoms. The management of oncological emergencies are also discussed. Four hours of theory weekly. Requisites NURS 513, NURS 514 Concurrent

NURS 515**Pharmacology in Oncology Nursing****Four Credits**

This course provides students essential knowledge concerning pharmacology for cancer patients and the nursing considerations with oncology medications. Promotes critical thinking during the intervention with the clients receiving therapy for cancer. It emphasizes the role of the nurse as provider of

pharmacological therapy to the client with cancer. The nursing process serves as guide in the dosage and calculation of medications for the client with cancer. Students will learn the theories of cancer, the pharmacodynamics and pharmacokinetics of each drug, and the therapeutic uses and secondary effects on the patient. The following families of medications are discussed in detail: immunological modifiers, biological agents and the specific and nonspecific chemotherapy of the cellular cycle. Occupational safety measures are included according to OSHA. Four hours of theory weekly. Requisites: NURS 513, NURS 514 Concurrent.

NURS 516

Practicum in Oncology Nursing

Three Credits

This course prepares students to integrate the basic and complex principles in the management of the client and family at risk for cancer and those with cancer, from the early to end-stages of cancer to the last stage of cancer or remission. Students will be exposed to primary, secondary and tertiary scenarios of oncological practice. The nursing process will be used as a guide apply critical thinking in decision-making with the client/system and family with cancer. The course emphasizes the roles of nurses as direct care provider, educator, communicator, and advocate. Students will analyze the benefits of research results while intervening with cancer patients. Students will participate in the management and treatment of this population and their family with sensibility and humanism considering the cultural diversity. Twelve hours clinical practice weekly. Requisites: NURS 513; NURS 514; NURS 515.

SPEECH AND LANGUAGE THERAPY PROGRAM

ADMINISTRATIVE STAFF

LEONG NUÑEZ, ISELDA

Program Director

MS, University of P.R., RCM

BS, University of P.R., RCM

FACULTY

ROSADO, DAMARIS

Instructor

MS/SLP, Carlos Albizu University

BA, Carlos Albizu University

PROGRAM DESCRIPTION

The Speech Therapy Program offers the Baccalaureate degree in both with speech problems daytime and evening hours. The program prepares students to offer treatment to individuals, up to age 21. It is based on the Standards of Excellence of the American Speech -Language-Hearing Association (ASHA) and Law 77 of June 3, 1983, which regulates the practice of Speech Therapy in Puerto Rico.

The program groups the courses into four components: General Education (43) Concentration courses (65). Support courses (12) and Electives (3), for a total of 123 credits. These components offer the students the knowledge and the skills to be a committed and excellent professional Speech Therapist.

MISSION

The UMET Speech Therapy program's mission is to prepare professionals of excellence in the area of speech therapy with the knowledge, skills, attitudes and values so that they can respond to the communication needs of the population aged 0-21 to make “effective communication a right for all”.

ADMISSION REQUIREMENTS

- High School or equivalent with GPA of 2.5 or higher on a 4.0 scale.
- Have taken the College Board, SAT or the test offered by the Placement Center of the Institution (CDU, for its Spanish acronym) (if under 25)
- Application for Admission
- Admission fee of \$15.00
- Interview with Coordinator
- Evidence of Immunizations (if under 21)

The program aims to prepare professionals in the area of speech therapy who:

1. Can offer habilitation and rehabilitation services to the population aged 0-21 with speech-language impediments, under the supervision of a speech pathologist.
2. Are trained to establish alliances with other professionals and agencies to maximize the results of the intervention, ensuring the confidentiality of clients.
3. Participate as active members of national and state professional, organizations.
4. Can access research findings as a mean to base their interventions on scientific evidence.
5. Will obtain the license that enables them to practice as a Speech Therapist in Puerto Rico.

LABORATORIES OF SPEECH THERAPY

In addition to the clinical experiences established in the different courses, the program has three laboratories available. The labs are equipped for students to practice and develop the psychomotor skills necessary for the implementation of the treatment to people with speech–language problems. All laboratories have therapeutic materials and a capacity for ten students each.

BACHELOR OF SPEECH AND LANGUAGE THERAPY

117 Credits	Credits
General Courses	43
Speech Therapy Courses	62
Support Courses	12
Electives	0

General Studies Courses		43
SPAN 101-102	Introductory Spanish Language Course - Basic Level	6
HUMA 101-102	World Cultures	6
ENGL 101-102	Introductory English Language Course - Basic Level	6
SOSC 103	Introduction to the Social Sciences Survey Course	3
COIS 101	Introduction to Computers	3
HIST 253	History of Puerto Rico	3
PSYC 123	General Psychology Survey Course	3
MATH 101-102	Mathematical Reasoning I,II	6
BIOL 106	Human Anatomy	4
FYIS 101	First Year Induction Seminar	3

Speech Therapy Courses		62
SPLA 101	Introduction to the Role of the Speech-Language Therapist	3
SPLA 201	Acoustics	3
SPLA 202	Anatomy and Physiology for the Study of Speech, Language and Hearing	3
SPLA 203	Language Development	3
SPLA 204	Law, Ethics and Intervention System in Speech Language Therapist	3
SPLA 205	Introduction to Audiology	3
SPLA 206	Basic Principles of Research	3
SPLA 207	Speech Development	3
SPLA 222	Autism Spectrum Disorders	3
SPLA 300	Professional Writing for the Speech Language Therapist	3
SPLA 301	Principles of Intervention in Speech-Language Therapy	3
SPLA302	Rehabilitation and Aural Habilitation in Children	3
SPLA 303	Intervention with Language Disorders	4
SPLA 304	Oral motor and Articulatory Dysfunctions	3
SPLA 308	Development of Reading and Writing K-3	3
SPLA 307	Clinical Practicum I	3
SPLA 309	Augmentative and Alternative Communication	3

Speech Therapy Courses		62
SPLA 314	Intervention in Voice Disorders	3
SPLA 406	Fluency Disorders	3
SPLA 409	Clinical Practicum II	4

Support Courses		12
EDUC 135	Fundamentals of Education	3
EDUC 173	Human Growth and Development and Learning	3
EDUC 204	Nature and Needs of the Exceptional Child	3
SPAN 235	Linguistics	3

Electives		3
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**BACHELOR OF SCIENCE IN SPEECH-LANGUAGE THERAPY AND MASTER OF SCIENCE IN
SPEECH-LANGUAGE PATHOLOGY (COMBINED BS & MS)**

166 Credits	Credits
General Education Courses	43
Complementary courses (Undergraduate Level)	12
Concentration courses	62
Specialization Courses	49

General Education Courses		43
SPAN 101-102	Introductory Spanish Language Course	6
ENGL 101-102	Introductory English Language Course	6
HUMA 101-102	World Cultures	6
FYIS 101	First Year Induction Seminar	3
MATH 101	Mathematical Reasoning I	3
BIOL 106	Human Anatomy	4
COIS 101	Introduction to Computers	3
MATH 102	Mathematical Reasoning II	3
SOSC 103	Introduction to Social Sciences	3
SPAN 235	Linguistics	3
HIST 253	History of Puerto Rico - Compendium	3

Complementary courses (Undergraduate Level)		12
EDUC 135	Foundations of Education	3
EDUC 173	Human Development, Growth and Learning	3
EDUC 204	Nature and Needs of Exceptional Children	3
PSY 123	General Psychology Survey Course	3

Concentration Courses		62
SPLA 101	Introduction to the Role of the Speech-Language Therapist	3
SPLA 201	Acoustics	3
SPLA 202	Anatomy and Physiology for the Study of Speech, Language and Hearing	3
SPLA 203	Language Development	3
SPLA 204	Law, Ethics and Intervention Systems in Speech Language Therapy	3
SPLA 205	Introduction to Audiology	3
SPLA 206	Basic Principles of Research	3
SPLA 207	Speech Development	3

SPLA 222	Autism Spectrum Disorders	3
SPLA 300	Professional Writing for the Speech Language Therapist	3
SPLA 301	Principles of Intervention in Speech Language Therapy	3
SPLA 302	Rehabilitation and Aural Rehabilitation in Children	3
SPLA 303	Intervention in Language Disorders	4
SPLA 304	Oral Motor and Articulatory Dysfunctions	3
SPLA 308	Development of Reading and Writing K-3	3
SPLA 307	Clinical Practicum I	3
SPLA 309	Augmentative and Alternative Communication	3
SPLA 314	Intervention in Voice Disorders	3
SPLA 406	Fluency Disorders	3
SPLA 409	Clinical Practicum II	4

Specialization Courses		49
SLPC 601	Ethics and Professional Issues in Communication Sciences	3
SLPC 602	Communication Disorders in Infants and Preschool Children	3
SLPC 603	Articulatory and Phonological Disorders	3
SLPC 604	Research Methods in Speech Language Pathology	3
SLPC 605	Language Disorders in School-Age Children and Adolescents	3
SLPC 606	Evaluation and Treatment of Voice Disorders	3
SLPC 607	Evaluation and Treatment of Fluency Disorders	3
SLPC 608	Aural Rehabilitation	3
SLPC 609	Adult Language Disorders	3
SLPC 610	Dysphagia and Motor Speech Disorders	3
SLPC 611	Assistive Technology Applied to Individuals with Communication Disorders	3
SLPC 612	Evaluation and Diagnosis of Communication Disorders	3
SLPC 613	Seminar in Supervision	2
SLPC 614	Seminar in Multicultural Issues in Speech Language Pathology	2
SLPC 615	Internship in Speech Language Pathology I	3
SLPC 616	Internship in Speech Language Pathology II	3
SLPC 617	Medical Speech Language Pathology	3
SLPC 618	Comprehensive Exam	0

COURSES DESCRIPTION

SPLA 101

Introduction to the Role of the Speech-Language Therapist

Three Credits

In this course, the student is initiated in the discussion of the role and responsibilities of a Speech-Language-Therapist. Basic terminologies on speech-language disorders are presented. Law 77 of June 3, 1983 of the Commonwealth of Puerto Rico, which regulates the profession and other laws that affects the people with impediments are discussed. As part of this course, the students will learn how this profession has developed in the United States and Latin America. Idiomatic equivalencies of scientific terms in Spanish and English will be studied. Requisites: NONE

SPLA 201

Acoustics

Three Credits

Study of acoustics and its variables. The course also includes the study of the acoustic variables that affect the reception and perception of speech, and the discussion of aspects related to the basic conditions needed for the therapeutic and educational management of children with hearing loss.

SPLA 202

Anatomy and Physiology for the Study of Speech, Language and Hearing

Three Credits

In this course the anatomy and the physiology of the mechanisms of the human body related to the process of hearing reception, voice emission, language and articulation are discuss. Emphasis is placed on the respiratory, neurological and muscular systems and the organs responsible for hearing, speech, language, phonation and articulation. The effects of communication and hearing and related pathologies will be analyzed. Requisites: BIOL 106, SPLA 101. Concurrent SPLA 206

SPLA 203

Language Development

Three Credits

This course has been designed to study the normal development of language. It focuses the development of normal language of a child from infancy to adolescence, including the cognitive requirement needed for language. The importance of the senses and environment exploration for language development as well as the aspects of form, content, the use of language and normal development on each step will be studied. The class will also study the different forms, use of language and the normal development on each area. As part of this course, the students will perform observations of children in their natural environments and will do screenings on language development. Requisite: SPLA 101.

SPLA 204**Law, Ethics and Intervention Systems in SLT****Three Credits**

Federal and local legislation on services for people with disabilities are discussed and analyzed. The Constitution of Puerto Rico and its relation with the development of the different laws: IDEA, Law 51 (June, 7, 1996) Law 311(December, 19, 2003) Law ADA and Law NCLB are studied. The Code of Ethic from professional organizations, laws of confidentiality (HIPPA) and the protection of children's rights and its implications for the role of the speech therapist are discussed. The administrative processes of the local government agencies for the provision of these special services are studied. Requisite: SPLA 101.

SPLA 205**Introduction to Audiology****Three Credits**

In this course the students will relate with the roles and responsibilities of the audiologist. The following concepts will be discussed: acoustic waves and decibel scale and the basic terminology related to this area in Spanish and English. The students will discuss hearing impairment, types and severity of hearing loss. The students will have practice in conducting hearing screenings under the supervision of a speech-pathologist. Requisite: SPLA 202. Concurrent SPLA 222

SPLA 206**Basic Principles of Research****Three Credits**

This course provides students the opportunity to explore the research process and apply the evidenced based practice concepts, according to the speech-therapist role. The importance of the scientific method and the use of computers are discussed. Ethical issues, critical analysis and application of findings to provide rationales for professional practice are emphasized. Requisite: SPLA 101. Concurrent SPLA 202

SPLA 207**Speech Development****Three Credits**

In this course the development and function of the phonologic process is studied. The oral motor and sensorial skills in infant, needed for the articulatory development is discussed. The students will be able to identify the normal patterns on the sounds within the Puerto Rican language. Differences and deficiencies in phonetic development considering linguistic variations in Puerto Rico and other Hispanic countries will be discussed. The students will perform clinical observation in natural environments and speech screenings. Requisite: SPLA 202. Concurrent SPLA 301 & SPLA 302.

SPLA 222**Autism Spectrum Disorders****Three Credits**

This course explores the background, diagnostic criteria, course of development and the theories and etiological causes of *ASD (Autism Spectrum Disorder)*. From the knowledge and understanding of Autism, this course presents the main and nontraditional behavioral intervention models and discusses

management strategies, intervention and the role of speech-language therapist through the dynamics of intervention. It also presents various *Neurodevelopmental Disorders* and *Sensory Integration Disorder* as essential part in early intervention when considering the similarities in their treatment.

SPLA 300

Professional Writing for the Speech Language Therapist

Three Credits

This course trains students on the writing of intervention reports, professional articles and educational materials. The students will write daily intervention plans. Technology will be used as a tool for effective documentation. Requisites: SPLA 203 & SPLA 207. Concurrent SPLA 308 7 SPLA 303.

SPLA 301

Principles of Intervention in Speech-Language Therapy

Three Credits

The students will learn about speech-language intervention models; discuss the specific strategies for direct intervention and natural environment intervention, including consultative- collaborative models. During this course, students will learn about the role of parents, caretakers and teachers in the speech language intervention and the strategies to have a successful integration in the intervention process. Methods on how to work with infants, children and adolescents during the therapeutic process will also be discussed. The possible use of technology during the different intervention models will be highlighted. Requisites: SPLA 203 & SPLA 207. Concurrent SPLA 302.

SPLA 302

Rehabilitation and Aural Habilitation in Children

Three Credits

The purpose of this course is to expose students on speech-language intervention with the hearing impaired between the ages of 0-21. Strategies for a speech-language development for the hearing impaired population including the use of hearing aids, cochlear implants, and lip reading and sign language are discussed. Requisite: SPLA 205. Concurrent SPLA 301.

SPLA 303

Intervention with Language Disorders

Four Credits

This course is designed to train the speech-language therapy students one how to stimulate the language development of infants, children and adolescents. Different language pathologies: methods, procedures and activities in the treatment of children with receptive and expressive disorders, are discussed. The Student will be able to perform prevention tasks and to give orientation to the family members, teachers and caretakers. Requisite: SPLA 203. Concurrent SPLA 308 & SPLA 300.

SPLA 304**Oral Motor and Articulatory Dysfunctions****Three Credits**

The purpose of this course is to train students for the intervention with infants and children with motor speech and articulation problems, including those secondary to syndromes and neurological disorders. Specific strategies to stimulate oral motor and sensory development are studied. The students will learn clinical procedures to stimulate the production of specific phonemes. Requisites: SPLA 202 & SPLA 207. Concurrent: SPLA 309 & SPLA 314.

SPLA 307**Clinical Practicum I****Three Credits**

This clinical course provides the students the opportunity to practice grading and interventional skills during their speech-language therapy courses. The student will have the opportunity to acknowledge the speech-language therapist functions with supervised activities from a speech pathologist. The student will provide orientations to parents, families and communities. The practice consists of 45 hrs. (30 hrs. of supervised clinical practicum and 10 of prevention) A seminar consisting of 15 hrs. will be provided for the discussion of the clinical experiences. Requisites: SPLA 203, SPLA 207 & SPLA 300. Concurrent SPLA 304.

SPLA 308**Development of Reading and Writing K – 3****Three Credits**

The foundations, principles, theories and perspectives related with development process of the reading and writing at levels from kindergartens to third are discussed. Different investigators, authors and specialists perspectives on the area are studied. It discussed the basic process used in the preparation of the child for reading and writing. Requisites: SPLA 203 & SPLA 303. Concurrent SPLA 303.

SPLA 309**Augmentative and Alternative Communication****Three Credits**

In this course the speech-language therapist student is will acquire basic knowledge related to assistive technology, with emphasis on augmentative and alternative communication (AAC). Students will study different techniques for intervention, used in the development of AAC methods and existing communication equipment available. The students will learn how to adapt and create equipment and materials for the population from 0-21 yrs. The impact of assistive technology on the lives of people with communication disabilities will be analyzed. Requisites: COIS 101, SPLA 203 & SPLA 301. Concurrent SPLA 304.

SPLA 314**Intervention in Voice Disorders****Three Credits**

In this course the students will study the normal parameters of tone, volume and voice quality. Disorders of voice production and the effect on the communication process are discussed. The students will develop the skill to identify deviations of voice; qualitative and quantitative parameters for screening. Strategies for the intervention on voice disorders, including prevention and direct intervention, will be discussed. Requisites: SPLA 202 & SPLA 207. Concurrent SPLA 307.

SPLA 406**Fluency Disorders****Three Credits**

In this course different types of stuttering that need to be referred and the fluency disorders are discussed. As part of the course, the students will have experiences in observation, screening and intervention on stuttering. Strategies for stuttering interventions from infancy to adolescence are discussed. Requisite: SPLA 207. Concurrent SPLA 405.

SPLA 409**Clinical Practicum II****Four Credits**

The purpose of this course is to offer the speech-language therapist students the opportunity to practice intervention skills speech-language therapy. It will provide the student the opportunity to practice the role that he will perform at the professional level with the pre and adolescent's population. It consists of 65 hours. 50 hours of supervised clinical practicum at elementary and intermediate schools and early intervention centers and 15 hours of seminars were they will discuss their clinical experiences. Requisites: SPLA 300, SPLA 303, SPLA 304 & SPLA 309. Concurrent SPLA 406.

Graduate level courses descriptions for the Combined BS & MS Program are published in UMET's Graduate Catalog.

DIAGNOSTIC IMAGING PROGRAM

Sonography Program

ADMINISTRATIVE STAFF

VARGAS MONSERRATE, CARMEN L.

Program Director

MBA/H.C.M., University of Phoenix

BSS, Universidad de P.R., RCM

ART, Universidad de P.R., RCM

NEGRÓN, YARITZA

Program Coordinator

BSS, Universidad del Este, UNE

FACULTY

NEGRÓN, YARITZA

Instructor

BS, Universidad del Este

Diagnostic Imaging Program Description

The Diagnostic Imaging Program provides students with three academic offerings in the field of Sonography: two associate degrees in the areas of Medical Sonography and a Vascular Sonography Program that are available during daytime hours. The Baccalaureate in Medical Sonography with a major in Peripheral Vascular conditions is offered at night, as an alternative for students who work during the daytime.

MISSION

The mission of the Diagnostic Imaging Program is to provide innovative educational services in the field of diagnostic imaging and treatment, by integrating modern educational methodologies, so that students can acquire the knowledge and technological skills of this health field to prepare them to compete successfully in the workplace.

VISION

The vision of the Diagnostic Imaging Program is to position ourselves as leaders in the education of diagnostic imaging and treatment whereby our graduates will be recognized as professionals of the highest quality, allowing them to remain at the forefront of the latest trends and developments in the profession.

GOAL of the Diagnostic Imaging Program

To prepare competent professionals in the field of diagnostic imaging, to practice effectively in the provision of health services.

OBJECTIVES OF THE IMAGING PROGRAM

1. Expose students to a broad and comprehensive curriculum that integrates the theoretical and practical aspects that comprise the academic area of health sciences related to diagnostic imaging.
2. Develop and strengthen the abilities, skills, knowledge and professional tools of Diagnostic Imaging.
3. Promote real experiences in the practice centers and laboratories (some virtual) to strengthen and expand the theoretical components of the program.
4. Meet the needs of instructional resources, bibliographic, computer, and professional development in technology.
5. Assist and guide students in their desire to excel professionally and personally.
6. Develop an ethical attitude and respect for the human being in compliance with established regulations regarding patient rights.
7. Promote self-knowledge and the ability to solve problems through critical thinking and scientific inquiry.

8. Promote communication and interaction with professional organizations and institutions that represent the field of health in Diagnostic Imaging.
9. Develop and enhance the image and quality of the program as an educational and community service with which students can identify.
10. Participate in in continuing education programs.

Goal of the Associate Degree in Medical Sonography

1. To develop the necessary skills in students for effective practice of medical Sonography.

Objectives of the Associate Degree in Medical Sonography

1. Develop students' skills in recognizing and tracking anatomy for Sonography.
2. Encourage students to engage in self-directed study as a tool to develop professional skills.
3. Encourage the analysis of clinical cases, as an essential tool in the field of medical Sonography.
4. Promote reading of professional journals and professional development material.
5. Promote community service as an essential basis of patient care.
6. Support and encourage students to take the national certification exams after completion of their program.

Goal of the Associate Degree in Vascular Sonography

1. To develop the required knowledge, attitudes and skills of a Sonography Vascular technician.

Objectives of the Associate Degree in Vascular Sonography

1. Ensure the development of vascular Sonography scanning skills in students.
2. Promote student participation in continuing education in order to remain current with the knowledge required of their profession.
3. Motivate students to become life-long learners.
4. Encourage the analysis of clinical cases, as an essential tool in the field of vascular Sonography.
5. Develop the skills of identifying conditions with and without anatomical pathology.
6. Promote quality patient care through the use of protocols in vascular studies.

Goal of the Baccalaureate in Medical Sonography with a major Peripheral Vascular Conditions

Promote the effective achievement of knowledge, attitudes and clinical skills in the academic and occupational medical Sonography student with a concentration in Peripheral Vascular conditions.

Objectives of the Bachelor's in Medical Sonography with a major in Peripheral Vascular conditions

1. Develop skills of critical analysis and clinical expertise in students of Sonography.
2. Promote the development of multitasking in graduates of Sonography.
3. Stimulate students in professional self-realization by taking the national certifying exam that their profession requires.
4. Develop collaboration among students in clinical practice centers to achieve academic goals.

5. Prepare students with the necessary skills that enable them to perform all peripheral vascular studies.
6. Promote reading of research articles or case studies on peripheral vascular conditions in order to increase their knowledge in this area.
7. Properly execute the necessary protocols to perform all peripheral vascular studies according to the patient's condition.

Admission Requirements:

1. Complete the application form and pay the University admission fee.
2. High School degree or equivalent, with a GPA of 2.5 or higher.
3. Interview with the Director of Programs.
4. Interested candidates who have associate degrees and apply for admission to the baccalaureate program will go through a process of convalidation of their academic record.
5. College Board with 400 in Mathematics

ASSOCIATE DEGREE IN HEALTH SCIENCES WITH A CONCENTRATION IN MEDICAL SONOGRAPHY

71 Credits	Credits
General Studies Courses	29
Sonography Courses	32
Professional Courses	10

General Studies Courses		29
SPAN 101 or SPAN 103	Introductory Spanish Language Course - Basic Level Introductory Spanish Language Course - Intermediate Level	3
ENGL 101 or ENGL 103	Introductory English Language Course - Basic Level Introductory English Language Course - Intermediate Level	3
HIST 101 or HIST 253	Introduction to the study of History History of Puerto Rico	3
PSYC 123	General Psychology Survey Course	3
MATH 101	Mathematical Reasoning I	3
COSC 111	Computer Literacy	3
BIOL 103-104	Anatomy and Physiology I,II	8
FYIS 101	First Year Induction Seminar	3

Sonography Courses		32
DMSO 101	Introduction to Sonography	3
DMSO 234	Ultrasound Physics and Instrumentation I	3
DMSO 236	Ultrasound Physics and Instrumentation II	3
DMSO 238	Abdominal Sonography	3
DMSO 240	Genitourinary System Sonography	3
DMSO 242	Superficial Structures Sonography	3
DMSO 244	Gynecologic Sonography	3
DMSO 246	Obstetric Sonography	3
DMSO 250	Integration Seminar	3
DMSO 220	Clinical Practicum I	1
DMSO 222	Clinical Practicum II	1
DMSO 224	Clinical Practicum III	3

Professional Courses		10
HESC 220	Patient Care	3
HESC 222	Medical Terminology	3
HESC 230	Sectional Anatomy	4

ASSOCIATE DEGREE IN HEALTH SCIENCES WITH A CONCENTRATION IN VASCULAR SONOGRAPHY

71 Credits	Credits
General Studies Courses	29
Sonography Courses	32
Professional Courses	10

General Studies Courses		29
SPAN 101 or SPAN 103	Introductory Spanish Language Course - Basic Level Introductory Spanish Language Course - Intermediate Level	3
ENGL 101 or ENGL 103	Introductory English Language Course - Basic Level Introductory English Language Course - Intermediate Level	3
HIST 101 or HIST 253	Introduction to the Study of History History of Puerto Rico	3
PSYC 123	General Psychology Survey Course	3
MATH 101	Mathematical Reasoning I	3
COSC 111	Computer Literacy	3
BIOL 103-104	Anatomy and Physiology I, II	8
FYIS 101	First Year Induction Seminar	3

Sonography Courses		32
DMSO 101	Introduction to Sonography	3
DMSO 234	Ultrasound Physics and Instrumentation I	3
DMSO 236	Ultrasound Physics and Instrumentation II	3
DVSO 334	Cardiovascular Physics and Instrumentation	3
DVSO 338	Vascular Sonography of the Cerebral Circulation	3
DVSO 340	Vascular Sonography of the Upper Extremity	3
DVSO 342	Vascular Sonography of the Lower Extremity	3
DVSO 344	Sonography of the Abdominal Vasculature	3
DMSO 250	Integration Seminar	3
DVSO 220	Clinical Practicum I	1
DVSO 222	Clinical Practicum II	1
DVSO 224	Clinical Practicum III	3

Professional Courses		10
HESC 220	Patient Care	3
HESC 222	Medical Terminology	3
HESC 230	Sectional Anatomy	4

**BACHELOR IN HEALTH SCIENCES WITH A CONCENTRATION IN MEDICAL SONOGRAPHY
PERIFEROVASCULAR**

116 Credits	Credits
General Education	47
Sonography Courses	59
Professional Courses	10

General Studies Courses		47
SPAN 101-102 or SPAN 103-104	Introductory Spanish Language Course - Basic Level Introductory Spanish Language Course - Intermediate Level	3
ENGL 101-102 or ENGL 103-104	Introductory English Language Course - Basic Level Introductory English Language Course - Intermediate Level	3
SOCS 103	Introduction to the Social Sciences	3
PSYC 123	General Psychology Source Course	3
HUMA 101-102	World Cultures	6
HIST 253	History of Puerto Rico	3
MATH 101-102	Mathematical Reasoning I,II	6
COSC 111	Computer Literacy	3
BIOL 103-104	Physiology and Anatomy I,II	8
FYIS 101	First Year Induction Seminar	3

Sonography Courses		59
DMSO 101	Introduction to Sonography	3
DMSO 234	Ultrasound Physics and Instrumentation I	3
DMSO 236	Ultrasound Physics and Instrumentation II	3
DMSO 238	Abdominal Sonography	3
DMSO 240	Genitourinary System Sonography	3
DMSO 242	Superficial Structures Sonography	3
DMSO 244	Gynecologic Sonography	3
DMSO 246	Obstetric Sonography	3
DSMO 250	Integration Seminar	3
DVSO 334	Cardiovascular Physics and Instrumentation	3
DMSO 336	Advanced Obstetric Sonography	3
DVSO 338	Vascular Sonography of the Cerebral Circulation	3
DVSO 340	Vascular Sonography of the Upper Extremity	3
DVSO 342	Vascular Sonography of the Lower Extremity	3
DVSO 344	Sonography of the Abdominal Vasculature	3

Sonography Courses		59
DMSO 404	Principles of Research in sonography	3
DMSO 220	Clinical Practicum I	1
DMSO 222	Clinical Practicum II	1
DMSO 224	Clinical Practicum III	3
DVSO 320	Clinical Practicum IV	3
DVSO 321	Clinical Practicum V	3

Professional Courses		10
HESC 220	Patient Care	3
HESC 222	Medical Terminology	3
HESC 230	Sectional Anatomy	4

COURSES DESCRIPTION

DMSO 101

Introduction to Sonography

Three Credits

This course is an introduction to the Medical Sonography profession. The student will study the fundamentals and the history of Medical Sonography. Topics may include, but are not limited to: the duty and role of the sonographer, the different specialties, such as, peripheral vascular and cardiovascular Sonography, the basic instrumentation, and management of the ultrasound unit, and the control, operation and use of the equipment to acquire images in these studies. Also included are the ethical-legal issues in Medical Sonography. Requisites: NONE

DMSO 220

Clinical Practicum I

One Credit

This course provides the students the experience of practicing in real work scenarios. The emphasis of the clinical practicum of the Medical Sonography program is the application of the knowledge acquired in the classroom, into real settings. The students will have the opportunity to practice the basic sonography procedures under the supervision of a certified sonographer. The moral, ethical and legal issues that the sonographer confronts in the works settings are emphasized. This course includes 120 clinical practicum hours. Requisites: DMSO101, HESC 220.

DMSO 222

Clinical Practicum II

One Credit

This course is a continuation of the previous clinical course, in which students worked at the intermediate skills level. The students have supervised clinical experience emphasizing the basic sonographic procedures of the abdomen, reproductive system and genitourinary system in adults and pediatric patients. In addition, basic scanning techniques, protocols, basic equipment management and instrumentation will be included. It includes 120 clinical practicum hours. Requisites: DSMO 220, DMSO 238.

DMSO 224

Clinical Practicum III

Three Credits

In this course, students will have supervised clinical experiences of advanced levels of skills, which will emphasize sonography advanced procedures, such as: studies of the thyroid gland, scrotum, prostate, popliteal area, neuro-sonography, musculoskeletal sonography and obstetric studies. Scanning techniques, protocols, advanced equipment and instrumentation management and quality control procedure will be included. It includes 360 clinical practicum hours. Requisites: DMSO 222, DMSO 240.

DMSO 234**Ultrasound Physics and Instrumentation I****Three Credits**

This course studies the fundamentals of ultrasound physics and instrumentation. Topics may include basic ultrasound physics, attenuation of the tissue, element transducer properties, and image artifacts. An introduction to the hemodynamic, Doppler physics and instrumentation is also studied. Requisite: DMSO 101.

DMSO 236**Ultrasound Physics and Instrumentation II****Three Credits**

In this course advanced topics of ultrasound physics and instrumentation will be discussed. These topics include areas of ultrasound transducer, image formation, image principles and instrumentation, image quality, biologic effects, clinical safety and quality control procedure. Requisite: DMSO 234.

DMSO 238**Abdominal Sonography****Three Credits**

This course will provide a study of the clinical applications of abdominal sonography. Topics include a review of gross abdominal anatomy, physiology, and pathology of every organ evaluated in the abdomen. Pertinent laboratory test as well as signs and symptoms related to disease processes of each organ will be discussed. It also includes 45 hours of skill laboratory to practice the basic scanning techniques and protocols. Requisite: DMSO 101. Concurrent DMSO 240.

DMSO 240**Genitourinary System Sonography****Three Credits**

This course will provide a study of clinical applications of the genitourinary system. Topics include a review of anatomy, physiology and pathology of the kidneys, bladder, prostate and testis evaluated in the genitourinary system. Pertinent laboratory test as well as signs and symptoms related to disease processes of each organ in the genitourinary system will be discussed. It also includes 45 hours of skill laboratory to practice the basic scanning techniques and protocols. Requisites: DMSO 101.

DMSO 242**Superficial Structures Sonography****Three Credits**

This course will provide a study of clinical applications in the superficial structures. Topics include a review of anatomy, physiology and pathology of the thyroid gland, parathyroid glands, parotid gland, breast, popliteal, neuro-sonography and musculoskeletal system. Signs and symptoms related to disease processes of these organs will be discussed. It also includes 45 hours of skill laboratory to practice the basic scanning techniques and protocols. Requisites: DMSO 101, 238, 240.

DMSO 244**Gynecologic Sonography****Three Credits**

The focus of this course is the study of gynecological anatomy and physiology. Topics include a review of anatomy, physiology and pathology of the female pelvis. In addition, the signs and symptoms related to disease processes, pertinent laboratory test, scanning techniques (trans abdominal and endovaginal) and protocols will be discussed. It also includes 45 hours of skill laboratory to practice of the basic scanning techniques and protocols. Requisites: DMSO 101, 238, 240. Concurrent DMSO 246.

DMSO 246**Obstetric Sonography****Three Credits**

This course studies the maternal changes and fetal development throughout gestation. Topics include a review of embryonic and fetal measurement, anatomy, and anomalies of the first, second and third trimester. In addition, scanning techniques including trans abdominal, transvaginal and transperineal studies related to sonography of the pregnant female. Pertinent laboratory test as well as signs and symptoms related to maternal changes will be discussed. It also includes 45 hours of skill laboratory to practice the basic scanning techniques and protocols. Requisites: DMSO 101, 242, 244

DMSO 250**Integration Seminar****Three Credits**

This course integrates acquired clinical applications knowledge with the basic concepts of the research process. It emphasizes the study of the basic research process as applied to imaging diagnostic problems. The student will evaluate articles in a published journal and research findings of the case studies in medical sonography practice. This course requires a critical analysis of a published research article and an oral presentation of a published research study of peer review. Requisites: All courses.

DMSO 320**Clinical Practicum IV****Three Credits**

Advanced practice clinical experience emphasizing the vascular sonographic procedures of the carotid arteries, and evaluation of the arteries and veins of the lower and upper extremities. In addition, scanning techniques and protocols used to diagnose vascular pathology are discussed. It includes 360 clinical practicum hours. Requisites: DMSO 224 or DVSO 224, DVSO 338

DMSO 321**Clinical Practicum V****Three Credits**

This course focuses on the assessment and continuing development of student skills. Students have various opportunities to evaluate their ability to integrate theory into practice. This practice will emphasize the vascular sonographic procedures of the cerebral circulation, abdominal and pelvic vasculature, phletismography, grafts, stents and arteriovenous fistulas. In addition, scanning techniques

and protocols used to diagnose vascular pathology are discussed. It includes 360 clinical practicum hours.
Requisites: DVSO 320, DVSO 340

DMSO 336

Advanced Obstetric Sonography

Three Credits

This course focuses on advanced topics in obstetrical sonography and fetal disease, including an introduction to fetal echocardiography, genetic sonography and the range of pathologies related to genetic and teratogenesis. A discussion of the emergent modalities in the obstetric sonography as well as tridimensional echocardiography and the Doppler application in the cardiovascular fetal anomalies diagnosis is included. It also includes 45 hours of skill laboratory to practice the basic scanning techniques and protocols. Requisites: DMSO 246

DMSO 404

Principles of Research in Sonography

Three Credits

This course integrates the knowledge and skills to develop and evaluate research findings, as applied to problems in the field of sonography. Students will develop knowledge in the following areas: introduction to the methodology, nature of research, study designs, qualitative versus quantitative research, descriptive method, critical appraisal of articles in professional journals and research protocols. Requisite: DMSO 336

DVSO 334

Cardiovascular Physics and Instrumentation

Three Credits

This course covers a discussion of the cardiovascular physics and instrumentation. Doppler sonography topics included are a review of ultrasound physics and instrumentation, continuous wave doppler, pulsed wave doppler, and duplex-triplex imaging. In addition, this course emphasizes the analysis of doppler spectral waveform and interpreting color and power Doppler imaging. An in-depth analysis of normal vascular hemodynamics and the effects of pathology on the blood flow within the heart and throughout the circulation are presented. Requisite: DMSO 236.

DVSO 338

Vascular Sonography of the Cerebral Circulation

Three Credits

This course will provide a study of clinical applications in the cerebral circulation. Topics include a review of gross vascular anatomy, physiology and pathology of vascular system imaged in the cerebral circulation. Pertinent laboratory test as well as signs and symptoms related to disease processes of cerebral circulation will be discussed. In addition, basic scanning techniques and protocols of the trans-cranial and extra-cranial duplex will be discussed. B- Mode imaging, color flow image interpretation, and spectral Doppler waveform analysis will be discussed. Vascular disease of the trans-cranial and extra-cranial circulation and its effect on blood flow will be covered. It also includes 45 hours of skill laboratory to practice the basic scanning techniques and protocols. Requisites: BIOL 103-104.

DVSO 340**Vascular Sonography of the Upper Extremity****Three Credits**

This course will provide a study of clinical applications in the arterial and venous circulation of the superior extremities. Topics include: vascular anatomy, physiology and pathology of the superior extremities. Pertinent laboratory test as well as signs and symptoms related to disease processes of the vascular system of the upper extremities will be discussed. In addition, basic scanning techniques and protocols of the arterial and venous duplex of the superior extremities will be discussed. B- Mode imaging, color flow image interpretation, and spectral doppler waveform analysis will be discussed. Vascular disease of the superior extremities and its effect on blood flow will be covered. It also includes 45 hours of skill laboratory to practice of the basic scanning techniques and protocols. Requisites: BIOL 103-104. Concurrent DVSO 342.

DVSO 342**Vascular Sonography of the Lower Extremity****Three Credits**

Clinical applications in the arterial and venous circulation of the lower extremity are the foci of this course. Topics include a vascular anatomy, physiology and vascular pathology of the lower extremities. Laboratory test as well as signs and symptoms related to disease processes of the vascular system of the lower extremities will be discussed. In addition, basic scanning techniques, plethysmography and protocols of the arterial and venous duplex, B- Mode imaging, color flow image interpretation, and spectral doppler waveform analysis will be discussed. Vascular diseases of the lower extremity and its effect on blood flow will be covered. It also includes 45 hours of skill laboratory to practice of the basic scanning techniques and protocols. Requisites: BIOL 103-104. Concurrent DVSO 344.

DVSO 344**Sonography of the Abdominal Vasculature****Three Credits**

This course will provide a study of sonographic scanning methods, techniques and protocols related to selected examinations of the abdominal vascular system. Anatomical structure and function and relevant pathophysiological disorders associated with the abdominal vascular systems will be discussed. In addition, basic scanning techniques, protocols of the arterial and venous duplex, B- Mode imaging, color flow image interpretation, spectral doppler waveform analysis and the role of ultrasound in the postoperative evaluation of transplants organs in the abdominal cavity will be covered. It also includes 45 hours of skill laboratory to practice of the basic scanning techniques and protocols. Requisites: BIOL 103-104.

DVSO 220**Clinical Practicum I****One Credit**

This clinical course provides students the opportunity to practice in real clinical scenarios the protocols and scanning of vascular sonography. Emphasis is on mastering the scanning techniques, analysis of

duplex sonography image and the use of terminology in the writing of the preliminary report. It includes 120 clinical practicum hours. Requisites: DMSO 101, HESC 220.

DVSO 222

Clinical Practicum II

One Credit

This course will provide the students with a supervised clinical experience that emphasizes the vascular sonography procedures of the extra-cranial circulation (carotid), trans-cranial duplex, venous and arterial duplex of the upper and lower extremities. Ethical and moral aspects of clinical practicum and writing of clinical reports are emphasized. It includes 120 clinical practicum hours. Requisites: DVSO 220, DVSO 338.

DVSO 224

Clinical Practicum III

Three Credits

The focus of this practice is the advanced vascular sonographic procedures of the intracranial circulation, abdominal and pelvic vasculature, pletismography, grafts, stents and arteriovenous fistulas evaluation. In addition, scanning techniques and protocols used to diagnose vascular pathology are included. It includes 360 clinical practicum hours. Requisites: DVSO 222, DVSO 340.

HESC 220

Patient Care

Three Credits

This course will provide a discussion of common patient care procedures and techniques emphasizing the physical and psychological wellness of the patient during the diagnostic imaging procedure. The initial component introduces key principles of medical-legal practice, medical ethics, infection control, and professional communication. In the second part of the unit the emphasis is on patient care in critical and emergency situations. Requisites: NONE.

HESC 222

Medical Terminology

Three Credits

This course will provide a short discussion of the use of medical terminology in the diagnostic medical imaging scenarios. Topics include a review of anatomy, physiology and pathology of every human system. Pertinent laboratory test as well as signs and symptoms related to disease processes of each organ. Discussion of writing and communication techniques within a professional setting. Requisites: DMSO 101.

HESC 230

Sectional Anatomy

Four Credits

This course will provide for the study of clinical applications in sectional anatomy. Topics include the study of human anatomy, primarily emphasizing axial, sagittal, coronal and oblique plains. This course is

designed to aid imaging modality students in recognizing, locating and identifying normal anatomy and pathological anatomy on various computer images. It includes a three hours lab weekly. Requisites: BIOL 103-104.

DEPARTMENT OF RESPIRATORY THERAPY

The Respiratory Therapy Department has two programs: An Associate Degree in Respiratory Therapy and a Baccalaureate Degree in Science with a specialization in Respiratory Therapy. Both programs are committed to prepare respiratory care practitioners who will care for individuals with cardiopulmonary disorders. In the clinical setting, students apply respiratory care techniques under the supervision of qualified clinical instructors.

Objectives:

- To expose the student to a broad, comprehensive curriculum in order to familiarize him/her with the diverse areas of cardiorespiratory care.
- To develop an understanding of the fundamental concepts and principles pertaining to the Respiratory Care discipline.
- To develop the psychomotor skills needed to apply scientific advancements in the area of cardiorespiratory care.
- To achieve a highly professional level of competency in the various therapeutic activities and to develop an interest and a positive attitude toward the nature of pulmonary care, technical-scientific methods, and related areas of research.
- To broaden the knowledge of scientific concepts, principles, foundations, and their clinical application to cardiopulmonary care.
- To provide preventive and therapeutic cardiorespiratory care to patients with cardiopulmonary disorders.
- To offer quality therapeutic service through the knowledge, use, and management of

equipment utilized in the care of patients with cardiorespiratory diseases.

- To allow positive interpersonal and inter-professional relationships in the workplace.
- To provide orientation to the general community about this profession, the diverse array of pulmonary diseases, pulmonary rehabilitation processes, and pulmonary home care.
- To promote research related to new methods and alternatives in pulmonary care of the patient and in the use of equipment and cardiopulmonary services in general.
- To provide the respiratory therapy student with experiences such as medical lectures and other educational input in order to encourage his/her interpersonal and professional growth.
- To foster among the graduates their participation in programs of continuing education in clinical medicine and patient management.

Admission Requirements

- High School graduate or GED equivalent.
- Fulfillment of all requirements for admission to the Institution.
- A minimum grade point average of 2.30 is necessary for admission to the Respiratory Therapy Program.
- Personal Interview.
- Candidates from post-secondary accredited institutions must comply with the University transfer policy and all the previously stated requirements.

In Addition

The program has a clinical laboratory available. In this laboratory the students are able to develop and practice the clinical skills before they go to the hospital rotations. These laboratories are designed to help students develop the psychomotor skills necessary to conduct various respiratory care procedures, such as oxygen therapy, medication and aerosol administration, airway management, arterial blood gas puncture, mechanical ventilation, pulmonary function testing. Students practice with machines and simulators previous to clinical experiences (machine sleep studies, BIPAP, SIM MAN 3G simulator and SIM MAN BABY simulator). All laboratories are offered by the faculty of the respiratory care program and have a capacity for 25 students.

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RRT

VÁZQUEZ, JEANICE

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ASSOCIATE DEGREE IN RESPIRATORY CARE

85 Credits	Credits
General Education Courses	32
Respiratory Care Courses	41
Sciences Courses	12

General Studies Courses		32
FYIS 101	First Year Induction Seminar	3
SPAN 101-102 or SPAN 103-104- 105-106	Introductory Spanish Language Course – Basic Level Introductory Spanish Language Course – Intermediate Level	6
ENGL 101 or ENGL 103-105	Introductory English Language Course – Basic Level	3
PSYC 123	General Psychology Survey Course	3
HIST 101 or HIST 253	Introductory to the Study of History History of Puerto Rico	3
MATH 101	Mathematical Reasoning I	3
COSC 111	Computer Literacy	3
BIOL 103-104	Anatomy and Physiology I,II	8

Respiratory Care Courses		41
REST 100	Ethical and Professional Issues in Respiratory Care	3
REST 104	Cardiopulmonary Pharmacology	3
REST 106	Fundamentals of Respiratory Care	5
REST 210	Respiratory Care Airway Management	5
REST 211	Pulmonary Function Testing and Acid-Base Balance	5
REST 212	Cardiopulmonary Rehabilitation and Home Care	3
REST 217	Cardiopulmonary Anatomy and Physiology	3
REST 218	Cardiopulmonary Pathophysiology	3
REST 222	Mechanical Ventilation in Respiratory Care	5
REST 225	Patient Assessments and Special Procedures in Respiratory Care	3
REST 227	Review in Respiratory Care	3

Science Courses		12
BIOL 105	Microbiology	4
PHSC 201	General Physics for Health Sciences	4
CHEM 105	Health Chemistry	4

BACHELOR IN SCIENCES MAJOR IN RESPIRATORY CARE

115 Credits	Credits
General Education Courses	47
Professional Studies	56
Sciences Courses	12

General Studies Courses		47
FYIS 101	First Year Induction Seminar	3
SPAN 101-102 or SPAN 103-104- 105-106	Introductory Spanish Language Course – Basic Level Introductory Spanish Language Course – Intermediate Level	6
ENGL 101-102 or ENGL 103-104- 105-106	Introductory English Language Course – Basic Level Introductory English Language Course – Intermediate Level	6
HUMA 101-102	World Cultures	6
SOSC 103	Introduction to the Social Sciences Survey Course	3
PSYC 123	General Psychology Survey Course	3
HIST 101 or HIST 253	World Culture History of Puerto Rico	3
COSC 111	Computer Literacy	3
MATH 101-102	Mathematical Reasoning I, II	6
BIOL 103-104	Anatomy and Physiology I, II	8

Professional Studies		56
REST 100	Ethical and Professional Issues in Respiratory Care	3
REST 104	Cardiopulmonary Pharmacology	3
REST 106	Fundamentals of Respiratory Care	5
REST 210	Respiratory Care Airway Management	5
REST 211	Pulmonary Function Testing and Acid-Base Balance	5
REST 212	Pulmonary Rehabilitation and Home Care	3
REST 217	Cardiopulmonary Anatomy and Physiology	3
REST 218	Cardiopulmonary Pathophysiology	3
REST 222	Mechanical Ventilation in Respiratory Care	5
REST 225	Patient Assessments and Special Procedures in Respiratory Care	3
REST 227	Review in Respiratory Care	3
REST 300	Polysomnography	3
REST 413	Pediatrics in Respiratory Care	3

Professional Studies		56
REST 417	Supervision and Management of Respiratory Care Department	3
REST 421	Practicum Respiratory Care Clinical	6

Science Courses		12
BIOL 105	Microbiology	4
PHSC 201	General Physics for Health Sciences	4
CHEM 105	Health Chemistry	4

CERTIFICATE IN POLYSOMNOGRAPHY

15 Credits		Credits
Science Courses		15
POLY 101	Fundamentals in Polysomnography	2
POLY 102	Sleep Neurophysiology	3
POLY 103	Polysomnographic Instrumentation	3
POLY 104	Therapeutic Interventions in Polysomnography	3
POLY 105	Clinical Practicum	4

COURSES DESCRIPTION

REST 100

Ethical and Professional Issues in Respiratory Care

Three Credits

This course introduces the student to the respiratory care profession, including accreditation agencies and professional associations, its history, general/professional ethics, euthanasia and medical-legal aspects. In this course, the following are discussed: HIPAA law, medical terminology, the importance of charting and maintaining medical records with precise confidence.

REST 104

Cardiopulmonary Pharmacology

Three Credits

In this course a general description and orientation of the field of pharmacology will be given and information related to the drugs utilized in the respiratory care. Involve the principles the action, physiology, indications, contraindications, adverse reactions, routes of administration and dosages administrated to adult, geriatric, pediatric and neonatology patient.

REST 106

Fundamentals of Respiratory Care

Five Credits

This course consists of three units which include the study of the administration of medical gases, therapeutic aerosols and use of oxygen analyzer with adult, pediatric and newborn. Also the use, function, operation and maintenance of the devices used to administer medical gases and inhalation medication. Also concepts of infection control and recordkeeping are included. Requisites: REST 104

REST 210

Respiratory Care Airway Management

Five Credits

This course is a thorough review of the respiratory tract and the principles of emergency airway care and life support techniques with adult and pediatric patients. The indications, contraindications, hazards and use various artificial airway devices are studied. This course includes theory and clinical practice. Requisites: REST 106

REST 211

Pulmonary Function Testing and Acid-Base Balance

Five Credits

This course consists of an introduction to the study of pulmonary function testing and the acid-base balance. This includes: calibration, techniques the operation, maintenance and quality control of equipment, medical indication, calculation of data and interpretation of test results will discussed. Requisites: REST 210

REST 212**Cardiopulmonary Rehabilitation and Home Care
Three Credits**

This course introduces the student to understand the benefits of pulmonary rehabilitation and home care programs. It includes: oxygen therapy, nutrition support, smoking cessation, pharmacology therapy, sleep disorders, breathing exercise and guidelines for management a pulmonary rehabilitation program and diagnostic techniques for patient selection. Requisites: REST 211, REST 218 & REST 225

REST 217**Cardiopulmonary Anatomy and Physiology
Three Credits**

This course is designed to analyze the anatomy and physiology of the respiratory and cardiac system and the relation between them. Studies to determine the respiratory mechanisms, blood, gas transport, regulatory or natural control of the ventilation, and clinical application are discussed. Requisites: BIOL 104

REST 218**Cardiopulmonary Pathophysiology
Three Credits**

This course is designed to provide the respiratory care student whit the basic knowledge and concepts of the variety of cardiopulmonary disorders. Topics such as the etiology, clinical manifestation, treatment and prognosis of these diseases will be studied. Requisites: REST 217

REST 222**Mechanical Ventilation in Respiratory Care
Five Credits**

This course consists of the study of modern technique related to the clinical application of continuous mechanical ventilation with adult, pediatric and neonatal patients. Discussions on

the use, calibration, maintenance, troubleshooting of mechanical ventilation, case studies are conducted analysis and clinic practice. Requisites: REST 211

REST 225**Patient Assessment and Special Procedures in
Respiratory Care
Three Credits**

This course will provide the student with an introduction to special procedures such as chest X-Ray, electrocardiography, hemodynamic, and clinical lab tests as part of the patient assessment. Requisites: REST 218

REST 226**Comprehensive Respiratory Care Review****Two Credits**

The student will participate in a comprehensive RC review. The intention of this review is to prepare the students for the board examination of respiratory care technicians. Requisites: REST 104, REST 211 & REST 218

REST 227**Review in Respiratory Care****Three Credits**

The student will participate in a comprehensive review of respiratory care concepts. The purpose of this review is to prepare the student for the national board examination of respiratory care technicians. Requisites: REST 104, REST 211 & REST 218

REST 300**Polysomnography****Three Credits**

This course introduces the student with the basic concepts of a Polysomnography, used to help diagnose and evaluate sleep disorders that generally includes monitoring of the patient's airflow through the nose and mouth, blood pressure, electrocardiography activity, blood oxygen level, brain wave pattern, eye movement, and the movement of respiratory muscle and limbs. This course is designed to provide both didactic and laboratory training, during night shift (7:00 pm – 7:00 am). Requisites: REST 222, REST 218 & REST 225

REST 413**Respiratory Care in Pediatrics****Three Credits**

This course introduces the student to fetal development, perinatal assessment and common pathologies of neonate and pediatric patient. It also provides basic knowledge on management, treatment and hazards in the

application of different modalities in pediatrics respiratory care. Requisites: REST 210

REST 417**Supervision and Management of the Respiratory Care Department****Three Credits**

This course introduces the student to the modern concepts of supervision, budget and productivity methods for a Respiratory Therapy Department. It will also include concepts of laws that affects the profession and about Commission for Hospital Accreditations among others. Requisites: REST 222

REST 421**Respiratory Care Clinical Practicum****Five Credits**

This course applies cardio respiratory assessment techniques, information gathering skills and communication skills in the clinical setting. Students will expand their competencies in adult as well as neonatal & pediatric critical respiratory care. The student will practice at a hospital under medical and technical supervision. Requisites: All REST courses of program.

POLYSOMNOGRAPHY**POLY 101****Fundamentals in Polysomnography****Two Credits**

Introduction to sleep physiology normal and abnormal sleep patterns. Review of the physiologic functions of the nervous, respiratory, cardiovascular systems and common sleep disorders. Emphasis placed on basic sleep sciences, neurophysiology, and diagnosis and treatment methods including Continuous Positive Airway Pressure (CPAP), Bi-level Positive Airway Pressure (BiPAP). Concepts of history, ethics, procedure manuals and

protocols, as well as job responsibilities.
Requisite: REST 218

POLY 102
Sleep Neuro Physiology

Three Credits

Discussion of chemical and neural control of the sleeping period, normal awake and pathophysiology. Epidemiology of sleep disorders, narcolepsy, epilepsy, sleep apnea, central apnea, neuromuscular disorders, parasomnias, involuntary leg movement and arousal patterns. Requisite: POLY 101

POLY 103
Polysomnography Instrumentation

Three Credits

Introduction to instrumentation as well as to electrical and practical principles of polysomnography. Emphasis is placed in overseeing the periodic cessation of respiratory activity based on the monitoring of the following: electro-encephalography (EEG), electro-oculography (EOG), electrocardiography (ECG), electromyography (EMG), pulse oximetry (SpO2).

POLY 104
Therapeutic Interventions in Polysomnography

Three Credits

This course is designed to develop, the skills to interpret sleep studies in adult and pediatric patients. It will also include troubleshooting and calibration of the respiratory equipment by titration base on the protocol.

POLY 105
Clinical Practicum

Four Credits

Directed practice in the clinical setting in a sleep laboratory or a sleep center. The student will participate in preparing, assembling, monitoring and disconnecting the patient. It allow the

students to follow the sleeping patterns of each case and emphasizes sleep scoring related to interruptions in breathing. The students will attend to the assigned sleep lab, twice a week, from 7:00 PM – 7:00 AM, for a term of eight weeks, for a total of 192 hours.

School of Professional Studies (AHORA)

SCHOOL OF PROFESSIONAL STUDIES-AHORA

Sistema Universitario Ana G. Méndez, pioneer in serving the education needs of adult students, continue this tradition through its Accelerated Program for Adults. This program is designed to meet the educational expectations of professional adults that wish to complete their university degree. In accelerated program, the students participate in a unique educational process different from traditional learning methods. Their professional experience is incorporated into the classroom in order to create an interactive, challenging, and dynamic environment. The program is specially designed for the adult students, offering a professional environment, as well as integrated, personalized and individualized services. The success of this program is the development of adult professional that value continuous learning and increase their contribution to world of employment.

VISION

We aim to become local and international leaders in accelerated education for adults. We will be recognized for the excellence and pertinence of our academic programs, integrated services, the application of emerging technologies and the strengthening of high-level competencies that will allow students to be effective in a globalized work environment, becoming lifelong learners.

MISSION

To provide an accelerated educational process to adult students, where their professional experience is incorporated into the classroom to create an interactive challenging and dynamic environment, as well as integrated, personalized and individualized services. Faculty and staff members with professional experience, especially prepared to work with

adults, are educational facilitators in an innovative way.

GOALS

To fulfill this mission, the School of Professional Studies intends to:

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

DESCRIPTION OF THE ACCELERATED PROGRAM OF STUDY

The AHORA Program is accelerated because all of its courses are offered in five or eight week sessions. During each session, classes meet once a week for four hours each week. The accelerated methodology is based on a learning process shared between the professor and the student. Each student receives a module, which serves as a study guide and indicate the assignments and activities that must be completed to prepare for class. Our faculty is

specially selected and trained to work with adult students through the accelerated mode, facilitating a class environment where learning is built on experiences and the assignments performed by the students. This model of accelerated studies can be applied to the different academic programs of the institution, to new academic programs or any other academic program where adult students participate. The courses are offered evenings, Saturdays (morning, afternoon, and evening), and Sundays (morning and afternoon). The student may take a maximum of two classes per session, completing six credits every five or eight weeks. Registration is continuous, with courses beginning eight times a year, and the possibility of completing up to forty-eight credits in an academic year. This way, the program provides greater flexibility for students, since they can advance their academic progress or design a class program that conforms to the variety of commitments they may have during the year.

ADMISSIONS REQUIREMENTS

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

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

ASSESSMENT

The School of Professional Studies has a comprehensive Assessment Plan that focuses on assessment of student learning, program effectiveness, and the student satisfaction with programs, services, and the learning environment. SPS uses the results to improve teaching, learning, and services. The plan

includes school-wide assessment through the following activities: student portfolio assessment; end-of-course student evaluation; student representative meetings; and continuous assessment of program activities. Assessment activities are focused on a mission statement, unit level goals that are aligned with institutional goals, objectives, and assessment procedures.

INTEGRATED SERVICES

The service offered is characterized for being personalized and individual, where together, the student and the program associates, go through the steps from admission to registration, according to the particularity of each student. Due to the integration of the different student services, students can process their admission, preliminary validation of transfer credit for their courses, receive orientation and apply for financial aid, receive personalized academic advising, and complete registration in the offices of the AHORA Program. The AHORA Program personnel also offer orientation about other services available and serve as a liaison to other offices at the Universidad Metropolitana.

CREDIT FOR EXPERIENCE AND KNOWLEDGE

The School of Professional Studies recognizes that not all knowledge is acquired in a classroom. The work place is also a learning center; so knowledge obtained through experience can be evaluated and validated as university credits. Students that have extensive knowledge of the content of a course in their program of studies may obtain credit by passing **challenge exams**. They must apply for this at the offices of the AHORA Program. The student will receive a study guide prepared for each exam. Students may also obtain credits for knowledge acquired through their experience by means of a **portfolio**. The portfolio consists of an essay

that shows that the knowledge obtained through work experience is equivalent to the knowledge that would be obtained in a classroom at university level. To prepare a portfolio, students must have approved six credits in the Program.

All procedures related to credit for experience closely follow the Council for Adult Experiential Learning (CAEL) guidelines and standards.

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BACHELOR IN PUBLIC HEALTH MAJOR IN HEALTH SERVICES MANAGEMENT

122 Credits	Credits
General Education Courses	48
Business Core Courses	32
Specialization Courses	36
Free Elective	6

General Education Courses		48
SPAN 101-102	Introductory Spanish Language Course – Basic Level	6
ENGL 101-102	Introductory English Language Course – Basic Level	6
SOSC 101	Introduction to the Social Sciences	3
COIS 101	Introduction to Computers	3
QUME 250	Quantitative Methods I	3
BIOL 227	Environmental Health	3
HIST 253	History of Puerto Rico	3
PSYC 123	General Psychology Survey Course	3
HUMA 101-102	World Cultures	6
SCIE 111-112	Integrated Sciences I,II	6
SPAN 215	Written Composition	3
ENGL 212	Business English – Basic Level	3
ENGL 350	Conversational English	3

Business Core Courses		32
ACCO 111-112	Introduction to Accounting I,II	8
PUHE 101	Introduction to Public Health and Health Education	3
PUHE 201	Introduction to Biostatistics	3
STAT 201	Introduction to Business Statistics I	3
PUHE 203	Introduction to Epidemiology	3
PUHE 210	Biological Aspects of the Human Diseases	3
MANA 213	Personnel Management	3
MANA 210	Administrative Theories	3
MANA 230	Organization Behavior	3

Specialization Courses		36
HESM 110	Health Services Management	3
HESM 210	Health System & Models	3
HESM 220	Health Service Planning & Evaluation	3
HESM 230	Applied Accounting for Health industry	3
HESM 310	Applied Health Economics	3
HESM 320	Applied Finance for Health Industry	3
HESM 330	Legal Aspects in Health Industry	3
HESM 340	Budgeting for Health Industry	3
HESM 410	Health Information Systems	3
HESM 420	Special Topics in the Health Services Industry	3
HESM 430	Practicum/Seminar in Health Services Management	3
HESM 431	Integrate Seminar in Health Services Management	3
Free Electives		6

COURSES DESCRIPTION

HESM 110

Health Services Management

Three Credits

Introduction to the fundamental concepts of management of health services facilities. Application of the administrative processes: organization, direction, control and evaluation. Emphasis is placed in public policies, health services management status, trends, organization, practices and issues relative to the delivery of health services in Puerto Rico and in the United States.

HESM 210

Health System & Models

Three Credits

A study of the systems, models, health policies and the infrastructure of health services in Puerto Rico and in the United States. Emphasis is placed in health reforms and its implication in the delivery of health services to the general population. Includes a review of the historical development and the future of health services. Requisites: HESM 110

HESM 220

Health Service Planning & Evaluation

Three Credits

A study of the historical development of planning and evaluation of health services in Puerto Rico and in the United States with emphasis in its impact in organizations and in communities. Includes the theoretical foundations of planning strategies. Discusses and applies the techniques of evaluation to the health sector. Requisites: HESM 110

HESM 230

Applied Accounting for the Health Industry

Three Credits

A study of the social, economic, and political developments that have influenced and determined the accounting practices in the health services industry. Reviews accounting procedures and discusses their applications in the health services industry. Actual and hypothetical health services accounting problems will be discussed. Requisites: ACCO 110, ACCO 111, HESM 110, MATH 118

HESM 310

Economics in the Health Industry

Three Credits

A study of the modern micro and macro economy applied to health services in the public and private sectors. Emphasis is placed in the situations and issues of health economics. Discusses the relationship between the market forces of need and demand of health services. Requisites: ECON 123, HESM 110, ACCO 110.

HESM 320**Basic Finance for the Health Industry****Three Credits**

A study of the financial practices of health services organizations. Also, includes the fundamental methods and techniques for financial administration in the health services industry, including fund distribution, capital management, determination and assignment of costs service rates. Case studies and applications are provided. Requisites: HESM 110, MATH 118

HESM 330**Legal Aspects in the Health Industry****Three Credits**

A study of the existing legislation in health services in Puerto Rico and in the United States. Emphasis is placed in the norms that have a bearing in the health services industry. Application experiences through case studies in aspects such as: malpractice, patient rights, informed consent, doctor-patient relationship, accidents, collective bargaining and ethical and legal issues. Requisites: HESM 110, MANA 210, MANA 230 PUHE 101

HESM 340**Budgeting for the Health Industry****Three Credits**

A study of budget models, including the corresponding programmatic plans, and budget distribution. Emphasis is placed in goals, objectives and measurable results. The course provides for the application of budget models and techniques to health services settings. Requisites: HESM 340

HESM 410**Health Information Systems****Three Credits**

General introduction to the theory of information systems. The course provides for the application and use of software packages

specifically designed for the health services industry for use in microcomputers and in mainframes, and for data collection, services utilization, billing, census, and others. Requisites: COMP 110, HESM 110, HESM 230, HESM 310, HESM 320

HESM 420**Special Topics in Health Services****Three Credits**

Analysis and discussion of current issues and trends in the health services industry. Emphasis is placed in critical reading and analysis of case studies. Requisites: HESM 110, HESM 220, HESM 320, HESM 340

HESM 430**Practicum in Health Services Management****Three Credits**

Application and integration to the workplace of the competencies and the concepts of health services management. The student will have the opportunity to apply the knowledge and skills acquired to a real health services setting under the supervision and guidance of a faculty member and a preceptor. The seminar session will place special attention to topics, issues and aspects relative to health services administration at the elementary and intermediate levels. A research project on a related topic is required.

HESM 431**Seminars in the Health Services Management****Three Credits**

In this course the students apply the principles of personnel supervision and learn how to manage the problems associated with it in a department of a Health Care institution. It also emphasis in many issues of legal protection to the patient and to the institution that provide the health care services. In this course the student will practice in many departments of the

health care institution. The practicum will be supervised by an institutional faculty member together with a certified health care administrator. The seminar sessions will place special attention to topics, issues and aspects related to health services administration. A research project on a related topic is required.

health-illness process and its causes, particularly transmissible, chronic, mental diseases and high risk behaviors.

PUHE 101

Introductions to Public Health and Health Education

Three Credits

Introduction to the different conceptions about health, as well as, the basic principles of public health and education. Analysis of the relationships that exist among the 4 major factors that determine health. Deals with various epidemiologic concepts about health and illness, the natural history of diseases, attention and prevention levels, specific protection measures and health promotion. Emphasis is placed on existing health education models for individual and community intervention.

PUHE 201

Introduction to Biostatistics

Three Credits

Basic concepts and principles of statistics applied to life and health. Emphasis in the basic techniques used in scientific research, primarily in areas of health education and public health. Analysis of the major statistical concepts such as: the scientific method and the statistics method and others.

PUHE 203

Introduction to Epidemiology

Three Credits

Studies the occurrence, distribution and causes of diseases in communities using the epidemiologic method. The epidemiologic, as well as, the scientific method are applied to the

PUHE 210**Biological Aspects of the Human Diseases****Three Credits**

Develops sound scientific attitudes, the concepts and the basic biological processes of diseases, such as: inflammation, immunological reactions, regeneration and growth control, fibrosis and necrosis using the scientific method as the tool. Pathogenesis is incorporated to the various perspectives of epidemiology and disease control as they relate to public health. Laboratory experiences promote the application of technology to the study of the principal human diseases and agents that cause them.

School of Technical Studies

SCHOOL OF TECHNICAL STUDIES

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

VISION

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

MISSION

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

OBJECTIVES

To fulfill its Mission the School of Technical Studies will:

1. Offer certificate and associate degree programs designed to prepare students in the necessary skills that will allow them to compete effectively in the employment market.
2. Design and maintain programs that will promote the student's effective working experience.
3. Endow student with the knowledge, skills and attitudes needed to perform with efficiency, dignity, and ethics in his/her respective professions.
4. Educate capable professionals with a sense of social responsibility.
5. Provide technical education that will respond to the present and future demands of the job markets.
6. Develop in the students the skills and knowledge related to their profession, in accordance to the needs of the community we serve.
7. Provide support services to promote the persistency and retention of the student in the program and to contribute to his academic and professional success.

ADMISSION REQUIREMENTS

1. Diploma from an accredited high School or its equivalence. A general grade point average of 2.00 is required for admission to every program.
2. Submission of the following requirements:
 - A complete application for admission.
 - Submit **one** of the following as part of the evidence for program-specific requirements:
 - a. Students from the public schools system that provide student GPA via an electronic system recognized by the Department of Education of Puerto Rico,

will not need to present physical evidence of the transcript. The electronic transcript sent by the school must show the academic GPA computed at the end of the first semester of the senior year of high school, to be evaluated as part of the admission process.

- b. Students from public and private schools that do not provide the electronic service data transfer recognized by the Department of Education of Puerto Rico, must provide a transcript comprising their high school years up to the first semester of the senior year of high school, to be evaluated as part of the admission process.
3. All candidates must submit **one** of the following documents as evidence of having completed high school or its equivalent:
 - Original Certification of graduation
 - Official document of an institution or agency recognized by the U.S. Department of Education that certifies the equivalency of a high school degree.
 - A non-refundable application fee of \$15.00.

REQUISITES FOR CLINICAL PRACTICE

In addition to admission, the student must meet other requirements as required by external professional boards and other agencies. This applies specially in the health-related fields. Those requirements include: negative certificate of criminal record, health certificate, Law 300, doping test and immunizations certificates, among others. Also, the student must provide evidence of the following vaccines: Chickenpox (two doses), Hepatitis B (three doses), Influenza,

among others. For more information on these and other requirements the student should contact the School officials.

COURSE SUBSTITUTIONS

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

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

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

ADMINISTRATION AND STAFF

LAURA E. APONTE HERNÁNDEZ

Dean

MBA, Universidad Metropolitana

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Administrative Assistant

BBA, Universidad Metropolitana

FACULTY

RIVERA QUIÑONES, NILDA

Professor

EdD, Interamerican University of Puerto Rico

ASSOCIATE DEGREE IN CLINIC THERAPEUTIC MASSAGE

77 Credits	Credits
General Education Courses	31
Concentration Courses	42
Related Courses	4

General Education Courses		31
SPAN 101-102	Introductory Spanish Language Course – Basic Level	6
ENGL 101	Introductory English Language Course – Basic Level	3
PSYC 123	General Psychology	3
MATH 101	Mathematical Reasoning I	3
ENMA 101	Introduction to Entrepreneurship Development	3
FYIS 101	First Year Induction Seminar	3
HUMA 101	Word Culture I	3
COIS 101	Introduction to Computers	3
BIOT 107	Principles of Anatomy and Physiology I*	4

Specialization Courses		
THMA 200	THMA 200 - Introduction to Massage	2
THMA 202	Therapeutic Massage I**	3
THMA 203	SPA Techniques**	3
THMA 204	Chair Massage**	2
THMA 205	Clinical Pathology	3
THMA 206	Evaluation and Documentation	2
THMA 208	Therapeutic Massage II**	3
THMA 212	Lymphatic Drainage**	3
THMA 214	Sports Massage**	3
THMA 216	Therapeutic Massage III**	3
THMA 218	Reflexology	2
THMA 220	Structural Kinesiology	3
THMA 222	Shiatsu	3
THMA 224	Massage for Populations with Special Needs	3
THMA 226	Therapeutical Massage Seminar	2
THMA 228	Clinical Therapeutic Massage, Practice Course***	2

Related Courses		4
BIOT 108	Principles of Anatomy and Physiology II*	4

*Lab. hours: 45 **Lab. hours: 30 ***Practice hours: 120

ASSOCIATE DEGREE IN COMPUTER REPAIR AND NETWORK INSTALLATIONS

69 Credits	Credits
General Education Courses	33
Specialization Courses	36

General Education Courses		33
SPAN 101-102	Introductory Spanish Language Course – Basic Level	6
ENGL 101-102	Introductory English Language Course – Basic Level	6
SOSC 103	Introduction to the Social Sciences Survey Course	3
HIST 253	History of Puerto Rico	3
MATH 111	Intermediate Algebra I	3
COIS 101	Introduction to Computers	3
OFAD 141	Keyboarding	3
ENMA 101	Introduction to Entrepreneurship Development	3
FYIS 101	First Year Induction Seminar	3

Specialization Courses		36
COIS 215	Introduction to Application Development	3
CRAN 201	Basic of Electronics Circuits	3
CRAN 202	Installation and Computers Repair I	3
CRAN 203	Installation and Computers Repair II	3
CRAN 204	Installation of Operating System	3
CRAN 205	Structured Wiring	3
CRAN 206	Wireless and Network Communications	3
CRAN 207	Introduction to the Networks (LAN)	3
CRAN 208	Introduction to the Networks (WAN)	3
CRAN 209	Networks Implementation and Design	3
CRAN 210	Voice Networks of Design and Implementation	3
CRAN 211	Convergent Computer Networks	3

ASSOCIATE DEGREE IN CRIMINAL JUSTICE

63 Credits	Credits
General Education Courses	24
Social Sciences Courses	18
Criminal Justice Courses	21

General Education Courses		24
SPAN 101-102	Introductory Spanish Language Course – Basic Level	6
ENGL 101-102	Introductory English Language Course – Basic Level	6
HUMA 101	World Culture I	3
MATH 101	Mathematical Reasoning I	3
SCIE 111	Integrated Sciences I	3
COIS 101	Introduction to Computers	3

Social Science Courses		18
PSYC 123	General Psychology Survey Course	3
PSYC 350	Principles of Psychopathology	3
SOCI 203	Principles of Sociology Survey Course	3
SOSC 225	Contemporary Socio-political Dilemmas	3
SOSC 103	Introduction to Social Sciences - Survey Course	3
SOSC 303	Statistical Methods Applied to the Social Science (Survey)	3

Criminal Justice Courses		21
CRIM 107	Introduction to Criminal Justice	3
CRIM 200	Criminal Justice System of Puerto Rico	3
CRIM 300	General Principles of Penal Law	3
CRIM 302	Criminal Procedure	3
CRIM 301 or CRIM 360	Special Penal Laws in the Criminal Legislation in Puerto Rico Criminal Investigation	3
CRIM 370 or CRIM 380	Law of Evidence Criminalistics	3
CRIM 318 or CRIM 350	Police Organization and Management The Correctional System of Puerto Rico	3

ASSOCIATE DEGREE IN DENTAL ASSISTANT WITH EXPANDED FUNCTION

77 Credits	Credits
General Education Courses	28
Specialization Courses	49

General Education Courses		28
SPAN 101-102	Introductory Spanish Language Course – Basic Level	6
ENGL 101	Introductory English Language Course – Basic Level	3
PSYC 123	General Psychology	3
MATH 101	Mathematical Reasoning I	3
FYIS 101	First Year Induction Seminar	3
BIOT 106	Anatomy and Physiology (Survey Course) ** *	4
HUMA 101	Word Culture I	3
COIS 101	Introduction to Computers	3

Specialization Courses		49
DENT 200	Head and Neck Anatomy	3
DENT 201	Dental Anatomy and Oral Histology	4
DENT 205	Microbiology	4
DENT 207	Oral Pathology	3
DENT 213	Dental Instruments and Materials	3
DENT 219	Radiology I *	4
DENT 225	Dental Services Billing	2
DENT 229	Pre-Clinic I **	5
DENT 230	Radiology II *	4
DENT 245	Pre-Clinic II **	5
DENT 265	Dental Practice Management and Ethics	2
DENT 270	Internal Clinic	4
DENT 280	External Clinical Practice ***	4
DENT 290	Clinical Seminar	2

*Lab. hours: 45

**Lab. hours: 90

***Clinical Practice hours: 225

ASSOCIATE DEGREE IN INFORMATION SYSTEMS

70 Credits	Credits
General Education Courses	30
Specialization Courses	36
Related Courses	4

General Education Courses		30
SPAN 101-102	Introductory Spanish Language Course – Basic Level	6
ENGL 101	Introductory English Language Course – Basic Level	3
SOSC 103	Introduction to Social Sciences Survey Course	3
MATH 101	Mathematical Reasoning I	3
ENMA 101	Introduction to Entrepreneurship Development	3
FYIS 101	First Year Induction Seminar	3
HUMA 101	Word Culture I	3
COIS 101	Introduction to Computers	3
SCIE 111	Integrated Sciences I	3

Specialization Courses		36
COIS 110	Introduction to Information Systems	3
COMP 210	Programming Logic	3
COMP 215	Operating System	3
COMP 220	Structural Programming-High Level Language	3
COMP 225	Information Systems Security	3
COMP 255	Ethics and Privacy in Information Systems	3
COMP 260	Database	3
COMP 262	Web Pages and Electronic Commerce	3
COMP 270	System Analysis and Design	3
COMP 275	Objects Oriented Programming	3
COMP 280	Net Communications	3
COMP 290	Project Design	3

Related Courses		4
OFAD 141	Keyboarding	4

ASSOCIATE DEGREE IN MANAGEMENT AND BILLING OF HEALTH SERVICES

72 Credits	Credits
General Education Courses	31
Specialization Courses	37
Related Courses	4

General Education Courses		31
SPAN 101-102	Introductory Spanish Language Course – Basic Level	6
ENGL 101	Introductory English Language Course – Basic Level	3
PSYC 123	General Psychology	3
MATH 101	Mathematical Reasoning I	3
ENMA 101	Introduction to Entrepreneurship Development	3
FYIS 101	First Year Induction Seminar	3
BIOT 106	Anatomy and Physiology (Survey Course) ** *	4
HUMA 101	Word Culture I	3
COIS 101	Introduction to Computers	3

Specialization Courses		37
MEBI 203	Medical Terminology*	3
MEBI 204	Coding of Diagnostics and Medical Services	3
MEBI 205	Manual Medical Billing	3
MEBI 207	Electronic Billing	3
MEBI 213	Audit of Health Services Billing	3
MEBI 225	Dental Services Billing	3
OFAD 111	Administrative Procedures for Medical Offices	3
MEBI 230	Health Services Billing – Practice Course***	2
OFAD 141	Keyboarding	4
OFAD 142	Document Production I	4
OFAD 111	Administrative Procedures for Medical Offices	3
OFAD 280	Records Management	3

Related Courses		4
ACCO 111	Basic Accounting I	4

*Concurrent with other course

**Lab. hours: 45

***Clinical Practice hours: 120

ASSOCIATE DEGREE IN OPERATING ROOM TECHNICIAN

66 Credits	Credits
General Education Courses	31
Specialization Courses	24
Related Courses	11

General Education Courses		31
SPAN 101-102	Introductory Spanish Language Course – Basic Level	6
ENGL 101	Introductory English Language Course – Basic Level	3
PSYC 123	General Psychology	3
MATH 101	Mathematical Reasoning I	3
BIOT 107	Principles of Anatomy and Physiology I*	4
ENMA 101	Introduction to Entrepreneurship Development	3
FYIS 101	First Year Induction Seminar	3
HUMA 101	Word Culture I	3
COIS 101	Introduction to Computers	3

Specialization Courses		24
SURT 201	Introduction to the World of Surgery	3
SURT 202	Disinfection and Sterilization*	4
SURT 203	Human Relations and the Surgical Patient	3
SURT 204	Foundations of Anesthesia	3
SURT 205	Foundations of the Operating Room I**	6
SURT 207	Clinical Phase ***	5

Related Courses		11
BIOT 105	Introduction to Microbiology*	4
BIOT 108	Principles of Anatomy and Physiology II*	4
MEBI 203	Medical Terminology	3

*Lab. hours: 45

**Lab. hours: 135

***Clinical Practice hours: 300

ASSOCIATE DEGREE IN PHARMACY TECHNICIAN

74 Credits	Credits
General Education Courses	28
Specialization Courses	46

General Education Courses		28
SPAN 101-102	Introductory Spanish Language Course – Basic Level	6
ENGL 101	Introductory English Language Course – Basic Level	3
PSYC 123	General Psychology	3
MATH 101	Mathematical Reasoning I	3
FYIS 101	First Year Induction Seminar	3
HUMA 101	Word Culture I	3
COIS 101	Introduction to Computers	3
BIOT 106	Anatomy and Physiology (Survey Course) *	4

Specialization Courses		46
PHAT 200	Pharmacy Introduction	3
PHAT 202	Pharmaceuticals Calculus	4
PHAT 206	Over the Counter Drugs	3
PHAT 216	Pharmacotherapy I	4
PHAT 218	Pharmacotherapy II	4
PHAT 219	Administration and Law Pharmacy	3
PHAT 220	Dosage	3
PHAT 222	Pharmaceutical Chemistry	3
PHAT 224	Communication and Customer Service Pharmacist	3
PHAT 226	Pharmacognosy	3
PHAT 228	Pharmacy Practice Laboratory	4
PHAT 230	Internship I**	3
PHAT 235	Internship II**	3
PHAT 240	Internship III***	3

*Lab. hours: 45

**Practice hours: 300

***Practice hours: 400

ASSOCIATE DEGREE IN SPORTS AND RECREATION PROGRAMS ADMINISTRATION

65 Credits	Credits
General Education Courses	30
Specialization Courses	35

General Education Courses		30
SPAN 101-102	Introductory Spanish Language Course – Basic Level	6
ENGL 101	Introductory English Language Course – Basic Level	3
PSYC 123	General Psychology	3
MATH 101	Mathematical Reasoning I	3
ENMA 101	Introduction to Entrepreneurship Development	3
FYIS 101	First Year Induction Seminar	3
HUMA 101	Word Culture I	3
COIS 101	Introduction to Computers	3
SCIE 111	Integrated Sciences I	3

Specialization Courses		35
REED 105	Introduction to Recreation and Sports Studies	3
CRET 201	Legal Aspects of Recreation	3
CRET 203	Scientific Fundamentals in Sport	3
CRET 205	Health, Fitness Efficiency and Sports	3
CRET 207	Recreation Program Planning	3
CRET 209	Introduction to Sport Management	3
CRET 211	Evaluating Recreational Programs	3
CRET 213	Arbitration in Sports	3
CRET 217	Planning Recreational Programs	3
REED 107	Therapeutic Recreation	3
CRET 221	Writing Recreational Reports	3
CRET 230	Practice on Recreational and Sports Program Administration*	2

*Practice hours: 120

COURSES DESCRIPTION

CLINICAL THERAPEUTIC MASSAGE

BIOT 107

Principles of Anatomy and Physiology I

Four Credits

This course presents the fundamental concepts of Biological Sciences focused on the characteristics of matter, the cell, the introduction to human anatomy and physiology, as well as the study of different systems and organs of the human body from a structural and functional point of view. This course also presents the basic concepts of structure and function of the human body, conditions and treatments of the integumentary, musculoskeletal, nervous, blood and immune systems. The student must complete a total of six (6) contact hours each week, distributed in three (3) of conference class, and three (3) of laboratory work.

BIOT 108

Principles of Anatomy and Physiology II

Four Credits

In this course students will continue expanding the fundamental concepts of the Biological Sciences focused on the characteristics of matter, the cell, the introduction to Human Anatomy and Physiology, as well as the study of different systems and organs of the human body from a structural and functional point of view. This course also presents the basic concepts of structure and function of the human body, conditions giving special emphasis to the cardiovascular, digestive, endocrine, renal and respiratory systems. The student must complete a total of six (6) contact hours each week, distributed in three (3) of conference class, and three (3) of laboratory work. Prerequisites: BIOT 107.

THMA 200

Introduction to Massage

Two credits

In this course that offers student theoretical knowledge about the history and origins of massage. Studies the professional, ethical, legal, hygiene, cleaning and security aspects in the massage room, types of clients, consulting techniques and preparation of the environment. It also covers equipment and products mostly used, with their general effects and contraindications.

The certificate program is intended to prepare professional therapists in the art of massage. Also trains students to provide its customers massage therapies to achieve the patient's holistic wellness (physical, emotional and mental). The student must complete a total of two (2) contact hours each week.

THMA 202

Therapeutic Massage I

Three credits

This course provides student knowledge about the basic techniques of therapeutic massage. It is considered as a general introduction to both the theory and practice of massage. The student will be

able to fully perform the basic concepts and manipulations of massage, and at the same time demonstrate such concepts and skills in the classroom. The student must complete a total of five (5) contact hours each week, distributed in three (3) of conference class, and two (2) of laboratory work. Requisite: THMA 200.

THMA 203

SPA Techniques

Three Credits

In this course the student will learn and apply the techniques used in SPA facilities, and how these are used to treat several health conditions, in order to improve circulatory, nervous and body systems. Students will also learn to apply different relaxing massage techniques and therapies to reduce stress conditions. The student must complete a total of five (5) contact hours each week, distributed in three (3) of conference class, and two (2) of laboratory work

THMA 204

Chair Massage

Two Credits

In this course students will learn the skills and techniques of using a professional massage chair as well as a common chair. Allows the practice of therapeutic massage session with different kinds of techniques chair. The student must complete a total of four (4) contact hours each week, distributed in two (2) of conference class, and two (2) of laboratory work. Requisites: THMA 200, THMA 202.

THMA 205

Clinical Pathology

Three Credits

This course is an introduction to the study of diseases and other conditions of the human body. The student will learn to recognize specific diseases or health conditions through observation and the use of different diagnostic sources, and to determine the appropriate massage treatment or further referral to other specialists if necessary. The student must complete a total of three (3) contact hours each week. Requisite: THMA 205.

THMA 206

Evaluation and Documentation

Two Credits

In this course trains the future masseur to design and personalize the massage session according to the specific needs of its client. Using the S.O.A.P. techniques, the therapist will be able to assess the needs of the client in order to define a therapy according to the specific condition. Initial evaluation is crucial to define the service needed, but it should be supported with written documentation. The course also prepares the student to document such conditions through a clinical history. Palpation methods, as well as posture and march evaluation will be covered in the course as important skills for the massage therapist. The student must complete a total of two (2) contact hours each week. Requisite: THMA 200.

THMA 208**Therapeutic Massage II****Three Credits**

In this course a basic review of the anatomy of the muscular system and its implications on the therapeutic massage. Includes the theoretic support and quiromassage techniques to muscular system. Students will be trained in the use of different techniques to specifically treat muscular conditions. The student must complete a total of five (5) contact hours each week, distributed in three (3) of conference class, and two (2) of laboratory work. Requisites: THMA 200, THMA 202.

THMA 212**Lymphatic Drainage****Three Credits**

This course will provide the student with the basic knowledge of anatomic concepts related to the lymphatic system. Also they study the main theories to support the draining of lymphatic fields. Students will learn the main conditions and diseases affecting the lymphatic system. They develop the basic skills to apply the manipulation protocol to follow for lymphatic draining. The student must complete a total of five (5) contact hours each week, distributed in three (3) of conference class, and two (2) of laboratory work. Requisites: THMA 200, THMA 202, THMA 208.

THMA 214**Sports Massage****Three Credits**

This course provides the student with the knowledge and skills to provide sport therapy massage, both during training and competing environments, in order to help athletes to achieve optimum performance as well as to keep good care of their health condition. The student will learn the functions of muscles, organs and body systems which are most commonly hurt during sport and athletic activities, and the ways to apply basic sport massage concepts and techniques in such circumstances. The student must complete a total of five (5) contact hours each week, distributed in three (3) of conference class, and two (2) of laboratory work. Requisites: THMA 200, THMA 202, THMA 208.

THMA 216**Therapeutic Massage III****Three Credits**

This course prepares the student with the knowledge and skills needed to develop therapies specifically directed to improve the muscular system of the client. It also trains the future masseur to treat this muscular conditions. The course cover techniques such as deep tissue massage, myofascial release and stretching techniques. The student must complete a total of five (5) contact hours each week, distributed in three (3) of conference class, and two (2) of laboratory work. Requisites: THMA 200, THMA 202, THMA 208.

THMA 218**Reflexology****Two Credits**

In this course students will learn prepares in the use of Reflexology therapy techniques, working with pressure stimuli points in feet, hands, nose, ears and other areas in order to achieve energy connections with glands, organs, and physiological systems of the body. It also prepares the student to provide the benefits of this therapy to its clients, through anatomic and physiological knowledge, as well as through specific skills and techniques. The student must complete a total of two (2) contact hours each week. Requisite: THMA 200.

THMA 220**Structural Kinesiology****Three Credits**

This course consist in the study of the muscle's origin and insertion, therefor the antagonist and synergy muscles. And also include an introduction of Muscle Test for identify weak and strong muscles of the body. Kinesiology is the study of the movement that centers on the action of the muscles with the bones. The student will complete the total of three (3) hours weekly at the semester. Requisite: THMA 200.

THMA 222**Shiatsu****Three Credits**

This course covers the massage method of acupressure. This is a technique originated in ancient China that replaces the use of needles for the use of finger pressure, reaching the equilibrium of body and soul, following the same principles of energy and meridians of acupuncture. As for most alternative therapies, the purpose of Shiatsu is geared to regain such balance, diminished by modern life stress. The student must complete a total of three (3) contact hours each week. Requisites: THMA 200, THMA 202, THMA 208.

THMA 224**Massage for Populations with Special Needs****Three Credits**

In this course will also prepare the student to understand and adapt different techniques for clients with special needs due to particular physical deficiencies that may limit their capabilities, thus requiring a modified massage therapy. Also in this course the student will develop those methods, techniques and modalities of clinical massage, which are combined to treat all kinds of conditions and diseases in persons of different age, gender and physical constitution. The student must complete a total of three (3) contact hours each week. Requisites: THMA 200, THMA 202, THMA 208.

THMA 226**Therapeutical Massage Seminar****Two Credits**

In this course the student will review all the competencies and concepts needed to take the Board tests and to obtain the Massage Therapist Certification in Puerto Rico. The student must complete a total of two (2) contact hours each week. Requisites: THMA 200 to THMA 224.

THMA 228**Clinical Therapeutic Massage, Practice Course****Two Credits**

The Supervised Practicum Course constitutes the most important clinical experience in the Therapeutic Massage Technician program. In this course the student will have the opportunity to apply all the knowledge, skills and techniques acquired throughout the development of the program. Practicum will take place in entities or venues that meet all requisites and standards established by applicable laws, in order to be authorized to provide therapeutic massage (sports facilities, health centers, elderly centers, therapy centers, institutional activities), and will be supervised by a licensed professional in the field. The student must complete a total of eight (8) hours each week, distributed in two (2) of conference class and six (6) hours of practicum. Requisites: THMA 200, THMA 202, THMA 208, THMA 216.

COMPUTER REPAIR AND NETWORK INSTALLATIONS**CRAN 201****Basics of Electronic Circuits****Three Credits**

Fundamental concepts of electronic behavior are identified. The course includes principles of AC and DC, laws and theorems concerning analysis of circuits, passive and active elements of circuits, operation of test equipment, circuit simulators and related issues. Theoretical analysis of circuits and how to measure voltage are emphasized.

CRAN 202**Installation and Computer Repair I****Three Credits**

Description of computer parts, electronic devices, power supplies, stabilizers and UPS are some of the topics included in this course, as well as the basic techniques and ways to assemble a computer. To diagnose problems and repair color calibration, frequencies and proofs of monitor VGA, TRC and LCD screen as well as the diagnosis and repair of Inkjet and laser printers are also included. Requisite: CRAN 201.

CRAN 203**Installation and Computer Repair II****Three Credits**

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

CRAN 204**Installation of Operating System****Three Credits**

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

CRAN 205**Structured Wiring****Three Credits**

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

CRAN 206**Wireless and Network Communications****Three Credits**

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

CRAN 207**Introduction to the Networks “LAN”****Three Credits**

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

CRAN 208**Introduction to the Networks “WAN”****Three Credits**

Study of the concepts, technologies, components and protocols used on wide area networks (wan). The global infrastructure of telecommunications is analyzed and how this support long distance voice and data broadcast One semester, three hours per week.

CRAN 209**Network Implementation and Design****Three Credits**

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

CRAN 210**Voice Network Design and Implementation****Three Credits**

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

CRAN 211**Convergent Computer Networks****Three Credits**

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

CRIMINAL JUSTICE**CRIM 107****Introduction to Criminal Justice****Three Credits**

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

CRIM 300**General Principles of Penal Law****Three Credits**

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

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

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

CRIM 302**Criminal Procedure****Three Credits**

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

CRIM 360**Criminal Investigation****Three Credits**

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

CRIM 370**Law of Evidence****Three Credits**

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

CRIM 380**Criminalities****Three Credits**

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

CRIM 200**Criminal Justice System of Puerto Rico****Three Credits**

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

CRIM 318**Police Organization and Management****Three Credits**

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

CRIM 350**The Correctional System in P.R.****Three Credits**

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

DENTAL ASSISTANT WITH EXPANDED FUNCTION**BIOT 106****Anatomy and Physiology (Survey Course)****Four Credits**

This course enables students to acquire the fundamentals of the Biological Sciences focused on the characteristics of matter, the cell, the introduction to human anatomy and physiology and genetics. The student must complete a total of six (6) contact hours each week, distributed in three (3) of conference class, and three (3) of laboratory work.

DENT 200**Head and Neck Anatomy****Three Credits**

This course will distinguish the study of the head and neck emphasizing the structures of the oral cavity, the anatomy of the skull and the temporomandibular joint, as well as studying the muscles of mastication, of facial expression and those who make up the palate. It also covers the salivary glands, cranial nerves, and those arteries and veins most relevant for the oral cavity, nasal sinuses, paranasal sinuses, their functions and special conditions that may affect them during surgical procedures. The student must complete a total of three (3) contact hours each week during the semester.

DENT 201**Dental Anatomy and Oral Histology****Four Credits**

This course emphasizes in the anatomy and histology, as well the study of the structure of the teeth in relation to their functional alignment with the dental arches in both dentitions: deciduous and permanent. Includes concepts of oral embryology, morphological differences of surfaces, as well as different types of occlusion. In histology area, emphasizes in the development of the skull, the tooth and surrounding tissue and tooth eruption process. The student must complete a total of four (4) contact hours each week.

DENT 205**Microbiology****Four Credits**

This course presents the basic principles of microbiology. It gives special attention to micro-organisms, pathogens, non-pathogenic bacteria, viruses, fungi and many manifestations presented. The student will learn methods for infection control and prevent disease transmission. The student must complete a total of six (6) contact hours each week, distributed in three (3) of conference class, and three (3) of laboratory work.

DENT 207**Oral Pathology****Three Credits**

The course prepares the student to know the signs and symptoms of the most common oral diseases such as tongue lesions, vesicular, traumatic, pigmented, bone, glands, or dental structure lesions, as well as those habits-related and their manifestations in the oral cavity. The course will also develop the ability to identify and recognize different conditions in order to assist the dentist in providing the patient oral health advices. The course prepares students to develop a basic understanding of the different oral lesions that may present a patient. The student must complete a total of three (3) contact hours each week. Requisites: BIOT 106, DENT 200, DENT 201.

DENT 213**Dental Instruments and Materials****Three Credits**

This course is designed to introduce students with the terminology and procedures of the odontology field, and prepares them to identify and understand the use of dental instruments for different procedures, as well as the use, composition and application of dental materials. Students must complete a total of three (3) weekly hours per semester. Requisites: DENT 200, DENT 201, BIOT 106.

DENT 219**Radiology I****Four Credits**

Introduction to principles for developing radiological images needed for the diagnosis and treatment of dental conditions. It emphasizes the basics of radiology and intraoral radiography techniques used to obtain diagnostic images. It includes general concepts of radiology, safety measures during the radiographic process, image receptors, dark room and its components, and the controls of the infections. The course offers theoretical and practical experiences in the development of radiographs in the dark room. Student will develop those skills and competencies needed to domain the radiographic process, including taking and mounting the images using the paralleling technique. Requires clinical laboratory experiences. The radiographic exposures obtained using the dummy will be part of the student's assess. The student must complete a total of six (6) contact hours each week, distributed in three (3) of conference class, and three (3) of laboratory work. Requisites: DENT 200, DENT 201.

DENT 225**Dental Services Billing****Two Credits**

This course will expose the students to the introduction of the billing process, daily balance account in the dental office and the reconciliation of the provider's payments. The course covers the concepts of electronic records, adjustments to patient records, and generating of statistics reports for the dental clinic. This process requires laboratory experience using electronic programs of the billing dental medical services. It teaches the students the use of electronic dental services billing processes. The students must complete a total of two (2) contact hours each week during the semester.

DENT 229**Pre-Clinic I****Five Credits**

This course will complement the learning experiences with laboratory techniques to prepare student in four-handed dentistry techniques. The course includes the adequate handling of dental materials, their properties and techniques required for the proper handling of instruments used by the process to be carried out. Includes de components of the dental chair, its parts and functions, handling of instruments during dental procedures, medical history, dental charting, vital signs, restorations and surgical trays components. Includes the components of It requires clinical laboratory experiences and skills to restore Class I, II, III, IV, V and VI preparations in dental amalgam and composite resins using a dentoform. The

student must complete a total of nine (9) contact hours each week, distributed in three (3) of conference class, and six (6) of laboratory work. Requisites: DENT 200, DENT 201.

DENT 230

Radiology II

Four Credits

Course designed for students to make proper use of the bisecting angle technique of intra-oral radiographs with high diagnostic value for the dentist. This course will discuss the extra-oral radiography techniques most often used in dental procedures to diagnose pathological conditions. The course studies the concepts of digital radiography, the identification of possible causes of errors during the taking of a radiograph, recognizing types of restorations and methods for the control of infections. The course also covers working with patients who may have problems or difficulties in radiograph sessions, including pediatric patients. Requires experience in clinical laboratories. The radiographic exposures obtained using the dummy will be part of the student's assess. The student must complete a total of six (6) contact hours each week, distributed in three (3) of conference class, and three (3) of laboratory work. Requisite: DENT 219.

DENT 245

Pre-Clinic II

Five Credits

In this course the student will be exposed to a laboratory experience that are performed in different specialties of dentistry such as preventive, prosthesis, pedodontics, prosthodontics, endodontics and other oral surgeries. Students will apply theoretical concepts to problem solving. It gives importance to the manipulation of dental materials and dental instruments used in these specialty areas and teaches the student how to give post-operative instructions to patients after a procedure is completed. In the prevention area the student will perform oral hygiene procedures in assigned patients under the supervision of the professor, in addition to providing instructions and advice on the maintenance of oral hygiene. Requires laboratory and clinical experiences. The student must complete a total of nine (9) contact hours each week, distributed in three (3) of conference class, and six (6) of laboratory work. Requisites: DENT 213, DENT 229.

DENT 265

Dental Practice Management and Ethics

Two Credits

This course is designed to provide students with the knowledge and experience to perform in the administrative phase of the dental office. It also develops their communication skills with patients. Students will be trained in the proper use of the phone, record appointments and inventory management systems. Applies ethical principles in the working place and with the patient. The student must complete a total of two (2) contact hours each week. Requisites: DENT 213, DENT 219, DENT 229, DENT 230.

DENT 270**Internal Clinic****Four Credits**

This course will expose the student to clinical experiences in our dental facilities at the institution. It will assess the student in the performance of their clinical skills in the area of preventive dentistry, restorative, radiographic exposures, procedures of four-handed dentistry, taking vital signs, charting, post-operative instructions to patients, control and manage appointments by phone. The student must complete a total of four (4) contact hours each week during the semester. Requisites: DENT 213, DENT 219, DENT 229, DENT 230.

DENT 280**External Clinical Practice****Four Credits**

This course exposes the student to real clinical experiences in the general dentistry area or other specialty area to apply their knowledge of four-handed dentistry, radiology and interpersonal relations with patients. It will assess the students in the performance of their skills with patients in clinical procedures performed in the area of maxillofacial surgery, pediatric dentistry, endodontic, periodontics, orthodontics, prosthodontics, and administrative procedures of the dental office. The students must complete a total of fifteen (15) contact hours each week during the semester. Requisite: DENT 270.

DENT 290**Clinical Seminar****Two Credits**

Seminar addressed to the analysis and evaluation of clinical experience gained during the internal and external clinic and how these have helped students in their professional development. It offers the opportunity to discuss the different situations in which they are involved and present possible solutions for them. Implement dental procedures in which the students have questions or need help. The student must complete a total of two (2) contact hours weekly during the semester. Requisite: DENT 270.

INFORMATION SYSTEMS**COIS 112****Introduction to Information Systems****Three Credits**

Introduction to systems concepts, information technology and DBMS software. It covers how information is used in organizations and how information technology improves the operations of the organization. Requires Laboratory. Requisite: COIS 101.

COMP 210**Programming Logic****Three Credits**

This emphasizes on design techniques and the development of modular programming in a structured way, independent of a specific programming language. It includes analysis, problem solving and their solutions in computer use. Pseudocoding, flowcharts and other diagrams to develop the algorithms of problem solving using the three basic control structures: sequence, selection and repetition are also studied. The student must complete a total of three (3) contact hours each week.

COMP 215**Operating System****Two Credits**

This is an introduction to the diverse operating systems of personal computers; equipment handling using programming so to control operational activities of the computer. It exposes students to diverse systems, techniques and procedures in order to handle a computer using the operating systems (O.S.) and utilities. It also offers knowledge of the equipment used in programming and operating a computer. The student must complete a total of three (3) contact hours each week. Requisites: COIS 101, COIS 112.

COMP 220**Structural Programming-High Level Language****Three Credits**

This course includes the study and utilization of the Visual Basic computer language, through the use of an event-managed and object-oriented programming approach. The course emphasizes the creation of programs for the user-graphic interface (UGI), which enables the work with the Windows Operative System environment. The student must complete a total of three (3) weekly hours during the semester. Requisites: COIS 101, COMP 210.

COMP 225**Information Systems Security****Three Credits**

In this course the student will analyze security techniques and functions of information systems. Also the vulnerability of information systems will be evaluated, as well as those tools available to avoid cyber attacks. The course will also cover audits to operative systems, data bases and communication networks. Students must complete a total of three (3) weekly hours during the semester. Requisites: COIS 101, COMP 215.

COMP 255**Ethics and Privacy in Information Systems****Three Credits**

In this course the student will learn techniques and functions related to privacy applied to information systems. The course will also cover those competencies needed in the workplace to promote ethics values in order to avoid the misuse of information that may affect other people. Students must complete a total of three (3) weekly hours during the semester. Requisites: COIS 101, COIS 112.

COMP 260**Database****Three Credits**

It provides basic skills relating to the design and development of database systems. Students will learn about database system analysis, modeling techniques and database development strategies. One semester, three (3) hours per week. Requisite: COIS 101.

COMP 262**Web Pages and Electronic Commerce****Three Credits**

This course develops the skills necessary to design, create, implement and maintain electronic web pages. It includes experiences with web pages designing tools, database management and transaction processing. The student must complete a total of three (3) contact hours each week during the semester. Requisite: COIS 101.

COMP 270**System Analysis and Design****Three Credits**

Study of the systems development cycle, with emphasis on the present system documentation, using the classic tools and techniques as well as the structured ones. It includes the use of these resources for describing the processes, the data flow, data structures, forms design for data gathering and reports. It also discusses data gathering activities and information, progress reports, and the transition from analysis to design. The student must complete a total of three (3) contact hours each week. Requisites: COIS 101, COMP 210, COMP 215.

COMP 275**Objects Oriented Programming****Three Credits**

Study of the fundamental concepts and principles of the object oriented programming language. The course emphasizes an individualized style of modular programming, using C++ language. It also promotes the use of extensions source program coding, and applications for the development competitive skills for today's employment market. Requires laboratory. The student must complete a total of three (3) contact hours each week during the semester. Requisites: COIS 101, COMP 210, COMP 220.

COMP 280**Net Communications****Three Credits**

Studies related to technology using communications facilities. Includes methods of transmitting digital data, video voice and graphics. Also includes modems terminals, security and communications network, Internet and electronic mail. One semester, three (3) hours per week. Requisites: COIS 101, COMP 215.

COMP 290**Project Design****Three Credits**

Project implementations with a commercial approach considering all the steps for the analysis, design, review and programming using the language learned in previous courses are viewed in this course. The application of the concepts used to design and implement computerized systems in accordance with the requirements of a modern system is also emphasized. The student must complete a total of three (3) contact hours each week. Requisites: COIS 101, COMP 210, COMP 215, COMP 220, COMP 225, COMP 255, COMP 260, COMP 270, COMP 275, COMP 280.

OFAD 141**Keyboarding****Four Credits**

Special emphasis will be given to key by touch using a computer keyboard. Development of speed and accuracy. Training in simple documents, such as: memorandums, documents with proofreader's marks, and also basic functions of Microsoft Word application such as: create, save, print, edit, and centralize text. One semester, four hours per week.

MANAGEMENT AND BILLING OF HEALTH SERVICES**ACCO 111****Introduction to Accounting I****Four Credits**

Fundamentals of accounting. Analyzing and recording business transactions, the accounting cycle and preparation of Financial Statements. Includes accounting for cash, accounts receivable and inventories. One semester, four hours per week.

BIOT 106**Anatomy and Physiology (Survey Course)****Four Credits**

This course enables students to acquire the fundamentals of the Biological Sciences focused on the characteristics of matter, the cell, the introduction to human anatomy and physiology and genetics. The student must complete a total of six (6) contact hours each week, distributed in three (3) of conference class, and three (3) of laboratory work. Concurrent with MEBI 203.

MEBI 203**Medical Terminology****Three Credits**

This course includes the study of roots, prefixes and suffixes of the essential basic terms used in the allied health sciences related to the major body systems, the study of different assessment methods, abbreviations, symbols and signs used in patient records and prescriptions by the health specialists. The student must complete a total of three (3) contact hours each week during the semester. Concurrent with BIOT 106.

MEBI 204**Coding of Diagnostics and Medical Services****Three Credits**

Prepares students in the coding of diagnoses according to the conditions and diseases of patients, services and procedures using the basic guidelines established by major health insurances in Puerto Rico. Students learn to use and carefully handle ICD-10 and CPT-4 books approved by the American Medical Association. The student must complete a total of three (3) contact hours each week during the semester. Requisite: MEBI 203.

MEBI 205**Manual Medical Billing****Three Credits**

It is designed to master the billing processes of the main Federal Health Plans, whether governmental or private. Students will identify changes in detailed billing procedures when applied to different medical services and their related terms. The student must complete a total of three (3) contact hours each week during the semester. Requisites: BIOT 106, MEBI 203, MEBI 204.

MEBI 207**Electronic Billing****Three Credits**

This course will train students to work medical billing by electronic methods. They will learn the complete cycle of electronic invoicing. This course is offered in a computer lab where students must complete a total of three (3) hours per week during the semester. Requisite: MEBI 205.

MEBI 213**Audit of Health Services Billing****Three Credits**

The course is designed for students to check the bills, their most common errors and to determine the reason for refusal. The audit is the mechanism for measuring the income received, to be received and losses that occur in the billing process. The student must complete a total of three (3) contact hours each week during the semester. Requisites: MEBI 205, MEBI 207.

MEBI 225**Dental Services Billing****Three Credits**

This course will expose the students to the introduction of the billing process, daily balance account in the dental office and the reconciliation of the provider's payments. The course covers the basic concepts of dental records, billing dental procedures, used the electronic billing system, reclamations and adjustment; and generating of statistics reports for the dental clinic. This process requires laboratory experience using electronic programs of the billing dental medical services. It teaches the students the use of electronic dental services billing processes. The students must complete a total of three (3) contact hours each week during the semester. Requisite: MEBI 205.

MEBI 230**Health Services Billing – Practice Course****Two Credits**

The course offers the student the opportunity to apply the knowledges already acquired in the academic program, in a real work environment. The student will work four (4) days in the week in a practice center and his or her performance will be evaluated by the assigned supervisor in the practice center. One day of the week the student will meet with the practice coordinator to discuss the work done, performance and experiences and to identify any areas that needed reinforcement. One hundred twenty practice hour. Requisites: MEBI 203, MEBI 204, MEBI 205, MEBI 207.

OFAD 111**Administrative Procedures for Medical Offices****Three Credits**

This course has been created to help the students in the development of necessary skills for the administrative procedures in medical offices. The course acquaints the student with all aspects of the administrative skills of the medical assisting profession. From the general to the specific, it covers key concepts, skills and tasks that should be familiar to the medical. The student must complete a total of three (3) contact hours each week during the semester. Requisite: OFAD 280.

OFAD 141**Keyboarding****Four Credits**

Special emphasis will be given to key by touch using a computer keyboard. Development of speed and accuracy. Training in simple documents, such as: memorandums, documents with proofreader's marks, and also basic functions of Microsoft Word application such as: create, save, print, edit, and centralize text. One semester, four hours per week.

OFAD 142**Document Production I****Four Credits**

Continues the development and improvement of keyboarding skills and techniques. Emphasis on business correspondence, memos, simple reports and two-page reports, simple and complex tables, and employment documents. One semester, four hours per week. Requisite: OFAD 141.

OFAD 215**Electronic Record Management for Medical Offices****Three Credits**

This course is designed to provide the student with the basic principles of administration and management of electronic medical records. The course is developed through application exercises and the use of technology. One semester, three hours per week. Requisites: COIS 101 or COSC 111.

OFAD 280**Records Management****Three Credits**

Provides principles and methods relating to the organization and operation of various systems of record administration, protection and control records. Provides training in modern methods for record classification and control systems. One semester, three hours per week.

OPERATING ROOM TECHNICIAN**BIOT 105****Introduction to Microbiology****Four Credits**

Introduction to the world of microorganisms, including the study of the basic characteristics of fungi, bacteria and viruses, emphasizing on those organisms that are pathogenous to humans. The student must complete a total of six (6) contact hours each week, distributed in three (3) of conference class, and three (3) of laboratory work.

BIOT 107**Principles of Anatomy and Physiology I****Four Credits**

This course presents the fundamental concepts of Biological Sciences focused on the characteristics of matter, the cell, the introduction to human anatomy and physiology, as well as the study of different systems and organs of the human body from a structural and functional point of view. This course also presents the basic concepts of structure and function of the human body, conditions and treatments of the integumentary, musculoskeletal, nervous, blood and immune systems. The student must complete a total of six (6) contact hours each week, distributed in three (3) of conference class, and three (3) of laboratory work.

BIOT 108**Principles of Anatomy and Physiology II****Four Credits**

In this course students will continue expanding the fundamental concepts of the Biological Sciences focused on the characteristics of matter, the cell, the introduction to Human Anatomy and Physiology, as well as the study of different systems and organs of the human body from a structural and functional point of view. This course also presents the basic concepts of structure and function of the human body, conditions giving special emphasis to the cardiovascular, digestive, endocrine, renal and respiratory systems. The student must complete a total of six (6) contact hours each week, distributed in three (3) of conference class, and three (3) of laboratory work. Prerequisite: BIOT 107.

MEBI 203**Medical Terminology****Three Credits**

This course includes the study of roots, prefixes and suffixes of the essential basic terms used in the allied health sciences related to the major body systems, the study of different assessment methods, abbreviations, symbols and signs used in patient records and prescriptions by the health specialists. The student must complete a total of three (3) contact hours each week during the semester.

SURT 201**Introduction to the World of Surgery****Three Credits**

This course prepares the student to acquire the basic knowledge of the operating room, the operating equipment components and the general medical-legal aspects related to the profession. The student must complete a total of three (3) contact hours each week.

SURT 202**Disinfection and Sterilization****Four Credits**

The course is designed to provide the student with the knowledge and skills related to the different methods of disinfection and sterilization used with sterile supplies and in the operating room. Student will perform effective decontamination, disinfection and sterilization procedures of surgical supplies, tools and products, in order to assure patient safety and wellness. The student must complete a total of six (6) contact hours each week, distributed in three (3) of conference class, and three (3) of laboratory work. Requisite: SURT 201.

SURT 203**Human Relations and the Surgical Patient****Three Credits**

This course covers the application of the different theories of Human Relations, and develops student competencies to provide quality attention to post-surgery patients. Main topics discussed include personality, ethics, and surgical conscience, among others, which are important in the operating room. In addition to emphasize adequate communication skills between the patient and the surgical team, the course covers the array of emotions manifested by patients related to anesthesia and the surgical process. The student must complete a total of three (3) contact hours each week. Requisite: SURT 201.

SURT 204**Foundations of Anesthesia****Three Credits**

The course is designed for the student to acquire the fundamental concepts and knowledge of anesthesia. It covers the historical background, different types and administering methods, and the drugs used by the anesthesiologist to facilitate the surgical procedure. The different stages of anesthesia are covered, as well as complications associated with the anesthesia process. The student must complete a total of three (3) contact hours each week. Requisite: SURT 202.

SURT 205

Foundations of the Operating Room I

Six Credits

The course integrates the theoretical and practical knowledge necessary in the field of surgical instrumentation in order to assure an excellent patient care, before, during and after the surgical procedure. The student will apply those skills needed for an effective intervention for pre-surgery preparations, surgical instrumentation and post-operative handling of contaminated materials and equipment. The course emphasizes the intervention of the surgical technician in maintaining aseptic techniques during all the operatory process in order to prevent infections. The student must complete a total of twelve (12) contact hours each week, distributed in three (3) of conference class, and nine (9) of laboratory work. Requisites: SURT 201, 202, 204.

SURT 207

Clinical Phase

Five Credits

The operating room technician is actively involved in different operatory procedures of the diverse surgical specializations in a real working environment. The practice involves the practical application of those competencies acquired in the theoretical phase for the intervention with the surgical patient. Emphasis is given to the development of skills for preparing different surgical processes and the execution of instrumentation during operatory intervention, always under close supervision of the professor and the operation room staff. The student must complete a total of three hundred (300) hours during the semester, divided into twenty (20) hours per week of supervised practicum.

PHARMACY TECHNICIAN

BIOT 106

Anatomy and Physiology (Survey Course)

Four Credits

This course enables students to acquire the fundamentals of the Biological Sciences focused on the characteristics of matter, the cell, the introduction to human anatomy and physiology and genetics. The student must complete a total of six (6) contact hours each week, distributed in three (3) of conference class, and three (3) of laboratory work.

PHAT 200

Pharmacy Introduction

Three Credits

Study of the origins and evolution of pharmacy as a profession. Includes the discussion of the basic concepts and terminology used in the occupation of the Pharmacy Technician. Focuses on the prescription and most important abbreviations used in it and their meaning, as well as procedures for its handling and dispatch. The course covers different presentation types of medications, commonly used equivalencies and other preparations. The student must complete a total of three (3) contact hours each week.

PHAT 202**Pharmaceuticals Calculus****Four Credits**

Review of basic math concepts used daily in the practice of the profession. Discusses the concepts of ratio and proportion, estimation, and significant figures, as well as the method used in the augmentation and reduction of formulas, preparations expressed in percentages, dilution and concentration. Emphasis is given to the International System of Units, the common Apothecary system, the Avoirdupois system, and equivalencies that are used in the conversion between them. Basic mathematical operations are performed as well as their application in solving quantitative problems that are part of the professional roles in both community pharmacy chains, as well as in institutional and industrial areas. The student must complete a total of four (4) contact hours each week. Requisite: MATH 101, PHAT 200.

PHAT 206**Over the Counter Drugs****Three Credits**

Studies those medications available without a medical prescription, over the counter drugs used in the prevention or treatment of the most common conditions that affect humans. The use of computers, medical devices and common accessories available for sale in community pharmacies that are used for testing or monitoring some common medical conditions or treatments is also discussed. It includes a section on homeopathy due to the great interest and demand this field has acquired in recent years. The student must complete a total of three (3) contact hours each week. Requisite: PHAT 200.

PHAT 216**Pharmacotherapy I****Four Credits**

This course envisions the fundamental concepts of the Biological Sciences focused on the characteristics of matter, the cell, the introduction to Human Anatomy and Physiology, also the study of different systems and organs of the human body from a structural and functional point of view. This course also presents the basic concepts of structure and function of the human body, conditions and treatments of the integumentary, musculoskeletal and nervous systems.

It also studies the treatment for conditions affecting diverse body systems and the most widely used drugs based on their clinical application. Including contraindications, precautions, warnings, interactions, pharmacokinetics, pharmacodynamics, dosage and adverse effects of drugs. The student must complete a total of four (4) contact hours each week. Requisite: BIOT 106.

PHAT 218**Pharmacotherapy II****Four Credits**

Fundamentals of biological sciences focused on the characteristics of matter, the cell, the introduction to human anatomy and physiology. Studies the different systems and organs of the human body from a structural and functional perspective. It presents basic concepts of the structure and functions of the

human body, the conditions and treatment of the endocrine, circulatory, respiratory, digestive, urinary and reproductive systems.

Emphasis is on the treatment of conditions affecting different body systems and most widely used drugs belonging to different categories based on their clinical application including contraindications, precautions, warnings, interactions, pharmacokinetics, pharmacodynamics, dosage and adverse effects of them. The student must complete a total of four (4) contact hours each week. Requisite: PHAT 216.

PHAT 219

Administration and Law Pharmacy

Three Credits

Study of state and federal laws that regulate research, development, manufacturing, packaging, marketing, sale and distribution of drugs and medical devices. Emphasis is on the laws governing the exercise of the profession of pharmacy and the pharmacy technician. Includes procedures for the physical organization of a drugstore: requirements, equipment, licenses and permits. The process of buying, receiving and checking of goods in and out of the pharmacy are also discussed. The student must complete a total of three (3) contact hours each week. Requisite: PHAT 200.

PHAT 220

Dosage

Three Credits

Provides the necessary tools to introduce students to the fundamental concepts of the pharmacy, related to the administration of drugs and dosage forms for adult and pediatric use. Includes equivalences and parenteral dosage calculation and of insulin. It also studies the different routes of administration, special design features and management and its usage. The student must complete a total of three (3) contact hours each week. Requisites: PHAT 200, PHAT 202.

PHAT 222

Pharmaceutical Chemistry

Three Credits

Study of the basics concepts of chemical composition, structure, properties and behavior of matter. Emphasis is given to the theoretical aspects of inorganic and organic chemistry that are helpful in understanding physiological processes, as well as those biological and pharmaceutical substances with which we interact in everyday life. The student must complete a total of three (3) contact hours each week. Requisites: MATH 101, PHAT 200.

PHAT 224

Communication and Customer Service Pharmacist

Three Credits

This course covers the basics of effective communication both verbally and written, and the proper way to establish effective relationships between the pharmacy technician and its patients, as well as with professional colleagues. It covers the study of theoretical aspects such as self-esteem, personality, and

human relations. The student must complete a total of three (3) contact hours each week. Requisites: PHAT 200, PHAT 216, PHAT 218, PHAT 219.

PHAT 226

Pharmacognosy

Three Credits

This course studies the use of drugs derived from natural sources such as plants, animals or mineral extraction and their purification methods, their chemical composition, therapeutic use and effects on the human body. Includes those drugs obtained by biosynthesis in pharmaceutical laboratories and from medicinal plants of Puerto Rico. The student must complete a total of three (3) contact hours each week. Requisites: BIOT 106, PHAT 200, PHAT 222.

PHAT 228

Pharmacy Practice Laboratory

Four Credits

This course provides the student with the practice of functions associated with dispatching medications and develops those required skills in the use and handling of pharmacy equipment. It also provides experiences in analyzing prescriptions to be served, from its interpretation, product selection, extemporaneous preparations, labeling and packaging under the close supervision of a pharmacist. Covers Pharmacy Technician's responsibilities in a real working environment with emphasis on the most common drugs used in the hospital, sterile techniques and preparations, and those preventive measures to avoid errors in the preparation of a medications. The student must complete a total of four (4) contact hours each week. Requisites: PHAT 200, PHAT 202, PHAT 206, PHAT 219, PHAT 222.

PHAT 230

Internship I

Three Credits

Integration of knowledge and skills acquired in a real scenario to facilitate the development and application of internal core competencies needed to serve as a Pharmacy Technician. The internship takes place in a community pharmacy, chain or institutional or a combination of these and it will be supervised by a licensed pharmacist duly authorized by the Pharmacy Examining Board, as stipulated by Law #247 of the Pharmacy Law of Puerto Rico. The total hours required for this term is three hundred (300) hours. The student must complete a total of three (3) contact hours each week. Requisites: BIOT 106, PHAT 200, PHAT 202, PHAT 206, PHAT 216, PHAT 218, PHAT 219, PHAT 220, PHAT 222, PHAT 226, PHAT 228.

PHAT 235

Internship II

Three Credits

Integration of knowledge and skills acquired in a real scenario to facilitate the development and strengthening of the internal core competencies needed to serve as a future Pharmacy Technician. The internship takes place in a community pharmacy, chain or institutional or a combination of these and it will be supervised by a licensed pharmacist duly authorized by the Pharmacy Examining Board, as

stipulated by Law #247 of the Pharmacy Law of Puerto Rico. The total hours required for this term is 300 hours to complete the one thousand (1,000) hours required by the Pharmacy Examining Board as Established by Law and thus complete the requirements to be eligible for the Pharmacy Technician Board Examination. The student must complete a total of three (3) contact hours each week. Requisite: PHAT 230.

PHAT 240
Internship III
Three Credits

Integration of knowledge and skills acquired in a real scenario to facilitate the development and strengthening of the internal core competencies needed to serve as a future Pharmacy Technician. The internship takes place in a community pharmacy, chain or institutional or a combination of these and it will be supervised by a licensed pharmacist duly authorized by the Pharmacy Examining Board, as stipulated by Law #247 of the Pharmacy Law of Puerto Rico. The total hours required for this term is four hundred (400) hours to complete the one thousand (1,000) hours required by the Pharmacy Examining Board as Established by Law and thus complete the requirements to be eligible for the Pharmacy Technician Board Examination. The student must complete a total of three (3) contact hours each week. Requisite: PHAT 235.

SPORTS AND RECREATION PROGRAMS ADMINISTRATION

CRET 201
Legal Aspects of Recreation
Three Credits

Study of the laws that create and regulate the governmental recreation in Puerto Rico as a conceptual framework to examine the role of recreation professionals serving as managers of technical sports programs. It examines risk management concepts, legal liabilities of the recreation professional and its participants. The student must complete a total of three (3) contact hours each week during the semester. Requisite: REED 105.

CRET 203
Scientific Fundamentals in Sport
Three Credits

Study of basic concepts in sociology and psychology applied to the study of sports as a social phenomenon. It examines the recreational sports, groups, organizations, dynamics and social functions. It also examines relevant aspects of sport execution: athlete's personality, anxieties, motivations, aggressions and violence in sports as well as the coach's role. The student must complete a total of three (3) contact hours each week during the semester. Requisite: REED 105.

CRET 205**Health, Fitness Efficiency and Sports****Three Credits**

Study of the basics of physical fitness and its impact on health. This course discusses and analyzes the basic elements of a physical condition as part of the lifestyle of people and recreational sports as a means of promoting healthy lifestyles. It leads the student towards the development of a systematic program of recreational fitness. The student must complete a total of three (3) contact hours each week during the semester. Requisites: REED 105.

CRET 207**Recreation Program Planning****Three Credits**

Study of concepts, fundamentals and models of recreational programs. It examines the life cycle, social trends, assessment needs, cost analysis and the development, implementation and evaluation of recreational and sports programs. The student must complete a total of three (3) contact hours each week during the semester. Requisite: REED 105.

CRET 209**Introduction to Sport Management****Three Credits**

Study of basic management concepts applied to the recreational and sports services. The most common functions in the administration of recreational and sports programs: budgeting, marketing, finances, organizational structures, facilities' management, equipment and personnel and risk management is also studied. The student must complete a total of three (3) contact hours each week during the semester. Requisite: REED 105.

CRET 211**Evaluating Recreational Programs****Three Credits**

Study of the concepts of evaluation and assessment models of recreational and sports programs. The student must complete a total of three (3) contact hours each week during the semester. Requisites: REED 105, CRET 207.

CRET 213**Arbitration in Sports****Three Credits**

This course covers the basic principles of the different types of sport events: judging or voting sports, scoring sports, and measurement sports. It analyzes the elements and skills for each sport, as well as the role and function of officials in overseeing compliance of applicable rules and regulations. Basic principles and concepts for each sport are discussed for the design and implementation of teaching-learning experiences. Requisites: REED 105, CRET 203.

CRET 217**Planning Recreational Programs****Three Credits**

Study of the basic concepts related to the planning and implementation of municipal sports and recreational programs. It examines the entire process of planning, implementing and evaluating recreational programs. The student must complete a total of three (3) contact hours each week during the semester. REED 105, CRET 207.

CRET 221**Writing Recreational Reports****Three Credits**

Study of the basics of written and oral communication applied to the profession of recreation. The course aims to train the recreational professional in the preparation of the written and oral reports that are used in most government recreational services. The student must complete a total of three (3) contact hours each week during the semester. Requisites: REED 105, CRET 201.

CRET 230**Practice on Recreational and Sports Program Administration****Two Credits**

Assigns students to agencies or governmental recreation and sports programs so they will participate in supervised practice experiences. This way they can apply these when managing sports and recreational programs. Requisites: CRET 201-221. Practice hours: 120.

REED 105**Introduction to Recreation and Sports Studies****Three Credits**

Exploration of concepts, assumptions, philosophies and history of programs in recreation and sports education. Study of concepts of recreation, leisure and play. The student must complete a total of three (3) contact hours each week during the semester.

REED 107**Therapeutic Recreation****Three Credits**

The study of recreation as an instrument for the rehabilitation and human development with special populations with disabilities. The student must complete a total of three (3) contact hours each week during the semester. Requisite: REED 105.

School of Sciences and Technology

SCHOOL OF SCIENCE AND THECNOLOGY

The School of Science and Technology is staffed by a Dean, one Associate Dean, Laboratory Technicians, Counselors and Office Personnel.

The academic programs' main goal is to prepare students in the scientific and technical content combined with a service component in General Education within a humanistic framework. Faculty is available to personally assist students in and out of the classroom. The School offers academic counseling, support for student organizations, conferences, and mentorships.

A strong undergraduate scientific research program encourages students to participate in the development of research projects and to publish their results through scientific conference presentations and peer-reviewed publications. These activities enrich and expand students' experiences during their undergraduate studies and provide opportunities to further their studies in graduate schools.

The School of Sciences and Technology is committed to educate the student in both the scientific and humanistic aspects of the Sciences. The School offers basic and specialized technical courses using modern, well-equipped laboratories supervised by qualified professors and technical personnel.

The School awards Bachelor of Sciences degrees with specializations in Computer Sciences, Biology, Cell and Molecular Biology, Chemistry, Environmental Sciences, Applied Mathematics, and Sales and Distribution of Pharmaceutical and Chemical Products. Associate degrees in Computer Sciences and in Natural Sciences are also offered. Basic course

requirements for medical, dental and pharmacy schools are provided.

Students are offered support through a network of counselors and academic advisors. Peer tutors and faculty mentors help students into a successful career. The Science Student Support Center (CDEC for its Spanish acronym) houses a complete array of services and support assistance to our students to address their needs and enhance their academic achievement through academic counseling, advising and peer-tutoring. Our goal is to create a stimulating and supportive environment where teaching and learning become central to all student and faculty activity. We also provide an effective pathway from high school to undergraduate through our pre college programs and assistance in the undergraduate to graduate transition.

The School also offers qualified students with special interest in research, opportunities for semester and/or summer internships at various national as wells as international universities. Opportunity for research experiences at National Laboratories and Agencies such as Sandia, Los Alamos and NASA are also available. Participating students could receive academic credit for their work. There are also opportunities on campus for undergraduate research in collaboration with faculty members.

OBJECTIVES

- To offer basic courses in sciences and mathematics to students enrolled in all academic programs.
- To offer specialized courses to students majoring in nursing and education.
- To provide students with the necessary knowledge and skills to compete for jobs or to pursue graduate work.

- To provide students with the necessary resources for scientific research through various institutional programs and collaborations with other institutions and participating laboratories.
- To upgrade undergraduate science teaching and research through a specially designed curriculum.
- To serve as a forum for the discussion of up-to-date scientific topics, by holding symposia, lectures and workshops open to the Puerto Rican community.

ADMISSION REQUIREMENTS

To be admitted to the School of Science and Technology students must fulfill all the requirements for admission to the Institution. A minimum general grade point average of 2.00 is required. Specific admission requirements for some majors are revised periodically. The student should seek additional information regarding specific requirements from the Associate Dean of the School.

School Laboratories

The School of Sciences and Technology has modern academic and research laboratory facilities. There are eleven academic laboratory facilities; five for Biology courses, three for Chemistry, one for Physics, one for Mathematics and one for Computer Sciences. New teaching laboratories with access to Internet are available for all science students. In addition, there are nine research laboratories where our students can participate in undergraduate research activities with a science faculty researcher/mentor. Two fully equipped multimedia-electronic classrooms are available for science courses. These laboratories are used by students as additional learning resources and by professors to incorporate new teaching strategies using the state of the art facilities.

MODEL INSTITUTION FOR EXCELLENCE

In 1995, UMET became a Model Institution for Excellence (MIE) through a cooperative agreement with the National Science Foundation. MIE is an initiative created by the National Science Foundation (NSF) in collaboration with the National Aeronautics and Space Administration (NASA) and the Departments of the Interior and Agriculture.

UMET was one of six institutions of higher learning awarded a collaborative agreement of up to \$2.5 million a year. All six MIE have a commitment awarding science, engineering and mathematics (SEM) degrees to underrepresented populations in these fields, a strong commitment to SEM education and undergraduate research, and the potential for launching a major enhancement of their current efforts.

As a result UMET created an environment with high standards and expectations for all science, engineering, and mathematics students to encourage them to pursue graduate studies. To address the program's unique goals, UMET rearranged the infrastructure of its SEM department and restructured the curriculum. It also focused on its faculty's professional and academic development. Through the professional development of its faculty and the academic development of its students, UMET looks forward to creating a replicable model of SEM education to be used by similar institutions in Puerto Rico and the United States. In 2007 the MIE support ended but it provided the seed for the transformation of the School to better serve the needs of the science students through the institutionalization of many of the best practices implemented by it.

SCIENCE SUPPORT CENTER

In 1996, UMET created a Science Support Center as the backbone of the MIE program. Today, the Science Support Center brings together faculty and counselors to serve as role models, determine students' needs and talents, and coordinate academic support. In addition, the Center provides group study, tutoring and cooperative learning rooms.

SCHOLARSHIPS

First-year SEM students with a high school graduation GPA of 3.0 or more and College Board scores of 500 or more in each of its parts have the opportunity to receive a full scholarship, including research opportunities in national laboratories, a stipend, and free tuition and books.

ADMINISTRATIVE STAFF

GONZÁLEZ, KAREN

Dean

PhD, Kansas State University
BS, University of Puerto Rico

FERNÁNDEZ PELEGRINA, NADIA

Associate Dean

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MS, University of Puerto Rico (Medical Science)
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FACULTY

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BS, University of Puerto Rico

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BS, University of Panama

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Division at Albert Einstein College

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BS, University of Puerto Rico

VÁZQUEZ QUIÑONES, LUIS E.

Associate Professor

PhD, UPR (Medical Science)

BS, University of Puerto Rico

ASSOCIATE DEGREE IN COMPUTER SCIENCES

59 or 60 credits	Credits
General Education Courses	24
Mathematics and Sciences Courses	14 or 15
Specialization Courses	15
Recommended Electives	6

General Education Courses		24
SPAN 101-102 or SPAN 103-104 or SPAN 105-106	Introductory Spanish Language Course-Basic Level Introductory Spanish Language Course-Intermediate Level Introductory Spanish Language Course-Advanced Level	6
ENGL 101-102 or ENGL 103-104 or ENGL 105-106	Introductory English Language Course-Basic Level Introductory English Language Course-Intermediate Level Introductory English Language Course-Advanced Level	6
SOCS 103	Introduction to the Study of Social Sciences	3
HIST 101	Introduction to the Study of History (compendium)	3
COSC 111	Computer Literacy	3
FYIS 101	First Year Induction Seminar	3

Mathematics and Sciences Courses		14 or 15
MATH 102- MATH 111-112 or MATH 138-139	Mathematical Reasoning II-Intermediate Algebra I,II Mathematical Introductory for Sciences I and II	9 or 8
SCIE 111 – 112	Integrated Sciences I- II	6

Specialization Courses		15
COSC 113	Computer Applications	3
COSC 131	Programming Logic	3
COSC 230	Programming in Computer Sciences I	3
COSC 240	Programming in Computer Sciences II	3
COSC 445	Data Base Systems	3

Recommended Electives		6
COSC 330	Computer Communications	3
COSC 335	Data Structure	3
COSC 340	Systems Analysis and Design	3
COSC 460	Topics in Computer Sciences	3

BACHELOR IN SCIENCES MAJOR IN COMPUTER SCIENCES

121 Credits	Credits
General Education Courses	42
Mathematics and Sciences Courses	31
Specialization Courses	36
Electives	12

General Education Courses		42
SPAN 101-102 or SPAN 103-104 or SPAN 105-106	Introductory Spanish Language Course-Basic Level Introductory Spanish Language Course-Intermediate Level Introductory Spanish Language Course-Advanced Level	6
SPAN 215	Written Composition	3
SPAN 218	Oral Communication	3
ENGL 101-102 or ENGL 103-104 or ENGL 105-106	Introductory English Language Course-Basic Level Introductory English Language Course-Intermediate Level Introductory English Language Course-Advanced Level	6
ENGL 207	Basic Level: Reading and Writing	3
ENGL 350	Conversational English	3
SOCS 101-102	Introduction to the Social Sciences	6
HIST 101	Introduction to the Study of History	3
HUMA 101-102	World Cultures	6
FYIS 101	First Year Induction Seminar	3

Mathematics and Sciences Courses		31
MATH 151-152	Pre-Calculus I,II	8
BIOL 203-204 or CHEM 203-204	General Biology General Chemistry	8
PHSC 203-204	General Physics	8
MATH 221	Calculus I	4
MATH 384	Probability and Statistics I	3

Specialization Courses		36
COSC 111	Computer Literacy	3
COSC 131	Programming Logic	3
COSC 230	Programming in Computer Sciences I	3
COSC 235	Computer Organization and Architecture	3
COSC 240	Programming in Computer Sciences II	3

Specialization Courses		36
COSC 340	System Analysis and Design	3
COSC 330	Computer Communications	3
COSC 335	Data Structure	3
COSC 350	Programming Languages	3
COSC 440	Operating Systems	3
COSC 445	Data Base Systems	3
COSC 460	Topics in Computer Sciences	3

Recommended Electives		12
MATH 222	Calculus II	4
MATH 350	Linear Algebra	3
PHSC 460	Digital Electronics	3
COSC 450	Design and Analysis of Algorithms	3
COSC 461	Topics in Computer Science III	3
Up to three courses	Business Administration courses	9 to11

BACHELOR IN SCIENCES MAJOR IN BIOLOGY

124 Credits	Credits
General Education Courses	42
Mathematics and Sciences Courses	43
Specialization Courses	36
Electives	3

General Education Courses		42
SPAN 101-102 or SPAN 103-104 or SPAN 105-106	Introductory Spanish Language Course-Basic Level Introductory Spanish Language Course-Intermediate Level Introductory Spanish Language Course-Advanced Level	6
SPAN 215	Written Composition	3
SPAN 218	Oral Communication	3
ENGL 101-102 or ENGL 103-104 or ENGL 105-106	Introductory English Language Course-Basic Level Introductory English Language Course-Intermediate Level Introductory English Language Course-Advanced Level	6
ENGL 207	Basic Level: Reading and Writing	3
ENGL 350	Conversational English	3
SOCS 101-102	Introduction to the Social Sciences	6
HIST 101	Introduction to the Study of History	3
HUMA 101-102	World Cultures	6
FYIS 101	First Year Induction Seminar	3

Mathematics and Sciences Courses		43
CHEM 203-204	General Chemistry	8
MATH 153	Pre-Calculus I	4
BIOL 203-204	General Biology	8
PHSC 203-204	General Physics	8
MATH 221	Calculus I	4
CHEM 351-352	Organic Chemistry	8
COSC 111	Computer Literacy	3

Specialization Courses		36
BIOL 312	General Zoology	4
BIOL 315	Biostatistics	3
BIOL 320	Microbiology	4
BIOL 325	General Botany	4
BIOL 329	General Ecology	4
BIOL 331	Developmental Biology	4
BIOL 340	General Genetics	4
BIOL 350 or BIOL 355	Biochemistry Cell and Molecular Biology	3 or 4
BIOL 360	Research Techniques	3
BIOL 345	Evolution	3

Electives	3
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BACHELOR IN SCIENCES MAJOR IN CELL AND MOLECULAR BIOLOGY

125 Credits	Credits
General Education Courses	42
Mathematics and Sciences Courses	43
Specialization Courses	40

General Education Courses		42
SPAN 101-102 or SPAN 103-104 or SPAN 105-106	Introductory Spanish Language Course-Basic Level Introductory Spanish Language Course-Intermediate Level Introductory Spanish Language Course-Advanced Level	6
SPAN 215	Written Composition	3
SPAN 218	Oral Communication	3
ENGL 101-102 or ENGL 103-104 or ENGL 105-106	Introductory English Language Course-Basic Level Introductory English Language Course-Intermediate Level Introductory English Language Course-Advanced Level	6
ENGL 207	Basic Level: Reading and Writing	3
ENGL 350	Conversational English	3
SOCS 101-102 or SOCS 103	Introduction to the Social Sciences Introduction to the Social Sciences – Survey Course	6
HIST 101	Introduction to the Study of History	3
HUMA 101-102	World Cultures	6
FYIS 101	First Year Induction Seminar	3

Mathematics and Sciences Courses		43
CHEM 203-204	General Chemistry	8
MATH 153	Pre-Calculus I	4
BIOL 203-204	General Biology	8
PHSC 203-204	General Physics	8
MATH 221	Calculus I	4
CHEM 351-352	Organic Chemistry	8
COSC 111	Computer Literacy	3

Specialization Courses		36
BIOL 315	Biostatistics	3
BIOL 331	Developmental Biology	4
BIOL 340	General Genetics	4
BIOL 350	Biochemistry	3

Specialization Courses		36
BIOL 353	Biochemistry II	3
BIOL 355	Cell and Molecular Biology	4
BIOL 360	Research Techniques	3
BIOL 410	Methods in Molecular Biology	4
BIOL 425	Seminar on Current Topic in Molecular and Cell Biology	3

Recommended Electives in Biology		
BIOL 320	Microbiology	4
BIOL 326	Modern Immunology	4
BIOL 345	Evolution	3
BIOL 365, 366, or 367	Undergraduate Research	1 - 3
BIOL 431	Biotechnology	4

BACHELOR IN SCIENCES MAJOR IN CHEMISTRY

124 Credits	Credits
General Education Courses	42
Mathematics and Sciences Courses	35
Specialization Courses	38
Chemistry Electives	6
Electives in Science and Mathematics	3

General Education Courses		42
SPAN 101-102 or SPAN 103-104 or SPAN 105-106	Introductory Spanish Language Course-Basic Level Introductory Spanish Language Course-Intermediate Level Introductory Spanish Language Course-Advanced Level	6
SPAN 215	Written Composition	3
SPAN 218	Oral Communication	3
ENGL 101-102 or ENGL 103-104 or ENGL 105-106	Introductory English Language Course-Basic Level Introductory English Language Course-Intermediate Level Introductory English Language Course-Advanced Level	6
ENGL 207	Basic Level: Reading and Writing	3
ENGL 350	Conversational English	3
SOCS 101-102	Introduction to the Social Sciences	6
HIST 101	Introduction to the Study of History	3
HUMA 101-102	World Cultures	6
FYIS 101	First Year Induction Seminar	3

Mathematics and Sciences Courses		35
CHEM 203-204	General Chemistry	8
MATH 153	Pre-Calculus I	4
BIOL 203-204	General Biology	8
PHSC 203-204	General Physics	8
MATH 221	Calculus I	4
CHEM 351-352	Organic Chemistry	8
COSC 111	Computer Literacy	3

Specialization Courses		38
CHEM 203-204	General Chemistry	8
CHEM 351-352	Organic Chemistry	8
CHEM 463-464	Physical Chemistry	8
CHEM 221	Analytical Chemistry	4
CHEM 430	Instrumental Analysis	4
CHEM 311	Inorganic Chemistry	3
CHEM 435	Chemistry Seminar	3

Recommended Electives in Chemistry		6
CHEM 365	Undergraduate Research in Chemistry	3
CHEM 383	Biochemistry	3
CHEM 390	Chemical Spectroscopy	3
CHEM 420	Environmental Chemistry	4

Electives in Mathematics and Science		3
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BACHELOR IN SCIENCES MAJOR IN ENVIRONMENTAL SCIENCES

124 Credits	Credits
General Education Courses	42
Mathematics and Sciences Courses	47
Specialization Courses	31
Electives in Science	4

General Education Courses		42
SPAN 101-102 or SPAN 103-104 or SPAN 105-106	Introductory Spanish Language Course-Basic Level Introductory Spanish Language Course-Intermediate Level Introductory Spanish Language Course-Advanced Level	6
SPAN 215	Written Composition	3
SPAN 218	Oral Communication	3
ENGL 101-102 or ENGL 103-104 or ENGL 105-106	Introductory English Language Course-Basic Level Introductory English Language Course-Intermediate Level Introductory English Language Course-Advanced Level	6
ENGL 207	Basic Level: Reading and Writing	3
ENGL 350	Conversational English	3
SOCS 101-102	Introduction to the Social Sciences	6
HIST 101	Introduction to the Study of History	3
HUMA 101-102	World Cultures	6
FYIS 101	First Year Induction Seminar	3

Mathematics and Sciences Courses		47
MATH 153	Pre-Calculus Compendium	4
MATH 221	Calculus I	4
CHEM 203-204	General Chemistry	8
CHEM 221	Analytical Chemistry	4
CHEM 351	Organic Chemistry	4
CHEM 420	Environmental Chemistry	4
PHSC 203-204	General Physics	8
BIOL 203-204	General Biology	8
COSC 111	Computer Literacy	3

Specialization Courses		31
ENSC 101	Introduction to Environmental Sciences	3
BIOL 315	Biostatistics	3
BIOL 329	General Ecology	4
ENSC 201	Introduction to Geology	4
BIOL 360	Research Techniques	3
ENSC 390	Natural History of Puerto Rico and the Caribbean	3
ENSC 411	Environmental Laws and Policies	3
ENSC 415	Environmental Pollution Compendium	3
ENSC 421	Case Studies Seminar I	1
ENSC 443	Integrated Environmental Laboratory in Environmental Science	4

Electives in Sciences	4
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BACHELOR IN SCIENCES MAJOR IN INSTRUMENTATION, AUTOMATION & CONTROL

98 Credits	Credits
General Education Courses	45
Mathematics and Sciences Courses	35
Specialization Courses	18
Electives	0

General Education Courses		45
SPAN 101-102 or SPAN 103-104 or SPAN 105-106	Introductory Spanish Language Course-Basic Level Introductory Spanish Language Course-Intermediate Level Introductory Spanish Language Course-Advanced Level	6
SPAN 216 or 218	Written and Oral Spanish	6
ENGL 101-102 or ENGL 103-104 or ENGL 105-106	Introductory English Language Course-Basic Level Introductory English Language Course-Intermediate Level Introductory English Language Course-Advanced Level	6
ENGL 207	Basic Level: Reading and Writing	3
ENGL 350	Conversational English	3
SOCS 101-102	Introduction to the Social Sciences	6
HUMA 101-102	World Cultures	6
HIST 101	Introduction to the Study of History	3
ENMA 101	Introduction to Marketing	3
COSC 111	Computer Literacy	3

Mathematics and Sciences Courses		35
MATH 153	Pre-Calculus	4
MATH 221	Calculus I	4
MATH 222	Calculus II	4
PHSC 203 – 204	General Physics	8
CHEM 203 – 204	General Chemistry	8
MATH 384	Statistics	3
PHSC 460	Electronics for Scientists	4

Specialization Courses		18
IACT 350	Industrial Networks	3
IACT 400	Industrial Automation & Control	4
IACT 410	Electric Motors and Control	4
IACT 450	Applied Process Control	4
IACT 460	Project Technical Documentation	3

Electives	0
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COURSES DESCRIPTION

BIOL 103-104

Anatomy and Physiology

Eight Credits

Designed for students of the Allied Health Sciences Programs Respiratory Therapy. It integrates the histo-macro and microanatomy of human systems with their corresponding physiology. Two semesters, three lecture hours and three laboratory hours per week.

BIOL 105

Microbiology

Four Credits

Designed for students of the Allied Health Sciences Programs. Discusses fundamental concepts of microbiology, including the latest advances in the area. It covers micro-organisms, their pathology, methods for controlling their growth and immunology. One semester, three lecture hours, and three laboratory hours per week.

BIOL 106

Human Anatomy

Four Credits

It is a course designed for students of the of Nurse Associated Degree and Nurse Baccalaureate Degree Programs in Sciences Integrate micro -, cyto -, histo- and macro anatomy concepts; basic concepts of Anatomy, foundations on structure of the cells, tissues, organs and systems, necessary for the general knowledge of the human body with their corresponding physiology. One semester, three lecture hours, and three laboratory hours per week.

BIOL 203

General Biology I

Four Credits

The course presents a brief introduction to biology and to the scientific methods as a tool for scientific research. Three fundamental topics are discussed: ecology, taxonomy and evolution. One semester, three lecture hours, and three laboratory hours per week.

Requisites: MATH 139 or MATH 112

BIOL 204

General Biology II

Four Credits

The study of the water molecule structure and function, the carbon element and the functional groups, biological molecules, the cell, the function of the cell membrane, cell respiration, photosynthesis and genetics. One semester, three lecture hours, and three laboratory hours per week.

Requisites: BIOL 203

BIOL 303**Human Biology I****Four Credits**

General concepts of cellular biology, membrane transport systems, and the histology needed for the introduction of anatomy and physiology of human skeletal, muscular and nervous systems. One semester, three lecture hours, and three laboratory hours per week. Requisite: BIOL 204

BIOL 304**Human Biology II****Four Credits**

Introduction to anatomy and physiology of the human systems including the endocrine, lymphatic, immunology, cardiovascular, respiratory, digestive, urinary and reproductive systems. One semester, three lecture hours, and three laboratory hours per week. Requisite: BIOL 303

BIOL 312**General Zoology****Four Credits**

A study of the general principles of systematic zoology from Protista to Chordata: biosystematics, morphology, physiology, anatomy, phylogenetic, ecology and evolution. One semester, three lecture hours, and three laboratory hours per week. Requisite: BIOL 203, BIOL 204

BIOL 315**Biostatistics****Three Credits**

This course is an introduction to parametric statistics applied to biological problems and situations. This course presents descriptive statistical procedures that include data presentation, graphics and inferential statistical procedures that allow us to do evaluations. The normal behavior and its distribution, and different kinds of samples, are analyzed by their global characteristics and projections can be realized. Computers are used in order to prepare the students in the handling of great volumes of information, in a precise form, reliable and easy. Also exercises are made in the field exposing them to real situations. One semester, three lecture hours per week. Requisites: BIOL 204 or CHEM 204, MATH 151 and COSC 111, MATH 152

BIOL 318**Parasitology****Four Credits**

A clinical approach to parasitic nematodes, platyhelminthes, protozoans and arthropods. The course emphasizes the general characteristics of these organisms as well as their life cycles. It also studies the pathologies, symptoms, and treatment of parasitological infections. One semester, three lecture hours, and three laboratory hours per week. Requisite: BIOL 204

BIOL 320**Microbiology****Four Credits**

Fundamental concepts of morphology, taxonomy, physiology, biochemistry, immunology, ecology, and genetics of microorganisms. It emphasizes their practical application to medicine, industry, agriculture and environment. One semester, three lecture hours, and three laboratory hours per week. Requisite: BIOL 203, BIOL 204

BIOL 325**General Botany****Four Credits**

This is an introduction to the fundamentals of structure and function of plants: plant cell, photosynthesis, respiration, genetics, hormone growth regulation and the influence of external factors and water. General systematic view of Protocista, Monera, Fungi and Plantae. Focuses on angiosperms: their structure, development, reproduction, life cycles, adaptations, and systematics. Emphasis on Puerto Rican species. One semester, three lecture hours, and three laboratory hours per week. Requisite: BIOL 204

BIOL 326**Modern Immunology****Four Credits**

Discussion of the fundamental bases of immunology. Includes the different defense mechanisms that protect the organism. The genetic bases, structure and function of antibodies, interactions between antigen and antibody, immunological tests, immune response mechanism, disorders and control. Includes three hours of lecture and one three-hour laboratory per week. Requisites: BIOL 320 Recommended: BIOL 340.

BIOL 329**General Ecology****Four Credits**

This course provides a comprehensive introduction to Ecology, the study of the relationship between the organisms and its biotic and abiotic environment. This course introduces the applied and theoretical questions about current topics in ecology at the level of the individual, the population, the community and ecosystems with an evolutionary perspective. The laboratory focuses in the study of abundance and distribution of organisms through research design, data collection and analysis. The habitats of Puerto Rico as well as issues in local and global conservation biology are being emphasized as well. One semester, three lecture hours and three laboratory hours per week. Requisites: BIOL 203/204, MATH 152.

BIOL 331**Developmental Biology****Four Credits**

Study of the developmental aspects of living organisms. The course integrates the classical methods of embryology with the molecular and genetic analysis of development. Three lecture hours and one three hour laboratory/week. Requisites: BIOL 340, BIOL 203, BIOL 204

BIOL 332**Introduction to Bioinformatics****Four Credits**

Bioinformatics uses computer databases to store, retrieve and assist in understanding biological information. This course is designed to introduce the most important and basic concepts, methods and tools in bioinformatics and computational biology. Topics include (but not limited to) an introduction to molecular biology and recombinant DNA technology, bioinformatics databases, biological sequence comparison, and phylogeny. Class hands-on and laboratory sessions will familiarize the student with the most commonly used online tools and resources. An introduction to the principles of the programming language Python will be provided.

Requisites: BIOL-204 or CHEM-204, MATH-152, COSC-111

BIOL 340**General Genetics****Four Credits**

Study of the rules that govern the transmission of hereditary characteristics in cells, individuals and populations. The course describes the most important aspects of classic genetics as well as the molecular aspects of direct gene organization and expression. One semester, three lecture hours and one three hour laboratory per week. Requisites: BIOL 204, CHEM 204

BIOL 345**Evolution****Three Credits**

This course is an introduction to the Modern theory of Evolution as the central axis of biology. The course includes the history (with emphasis in Darwin and Wallace) of evolution and the influence of disciplines such as geology, paleontology, systematic and molecular biology in the transformation of the discipline. The course covers the origin of the Earth, the geological periods, speciation, natural selection, ecology, population genetics and molecular biology. The student will learn the contributions of evolution to disciplines such as medicine, public health and conservation. Requisites: BIOL 203, BIOL 204.

BIOL 350**Biochemistry****Three Credits**

Lecture and discussion course on the fundamental notions of the chemistry of vital processes. It includes the study of the structural and functional relationship of proteins, carbohydrates, lipids, nucleic acids and their metabolism. Metabolic processes related to energy storage and its utilization, also the

transmission and expression of genetic information will be studied. One semester, three lecture hours.
Requisites: BIOL 203, BIOL 204, CHEM 351, CHEM 352

BIOL 353

Biochemistry II

Three Credits

Lecture and discussion course on the fundamental notions of the chemistry of vital processes. The second part of the biochemistry course focuses on metabolic processes incorporating metabolism of glucose, lipids, carbohydrates, amino acids and nucleotides. Importantly, this course emphasizes how metabolic pathways are regulated and how they are interrelated in an organism. Prerequisites: BIOL 350

BIOL 355

Cell and Molecular Biology

Four Credits

The course focuses on the structure and function of the cell. The organization of living cells; structure and function of inorganic and organic compounds; structure and function of cell membrane, cytoplasmic cell systems (Golgi complex, endoplasmic reticulum, etc.) mitochondria, chloroplast; protein sorting, membrane receptors, and cell signaling studied. Emphasis is given to recent papers and advances in cell and molecular biology. Laboratory experiences include the use of various techniques required in cell biology. One semester, three lecture hours, and three laboratory hours per week. Requisites: BIOL 204, CHEM 352, MATH 152

BIOL 360

Research Techniques

Three Credits

The course has been designed to introduce basic research concepts. The following topics are discussed: science and scientific research, ethics in research, resources that are available to locate scientific publications, main components of a research proposal and a final report, using tables and figures. During the course, the student will write a research proposal. One semester, three hours per week. Requisite: BIOL 203-204

BIOL 365-366-367

Undergraduate Research in Biology I, II, III

Three Credits

Introduction to scientific research. Designed to develop basic research skills in a field of biology previously selected by the student in accordance with the specialization of the supervising professor. One semester, hours to be determined by agreement with the supervising professor. Requisites: BIOL 360. By agreement with the professor.

BIOL 370**Seminar****Two Credits**

Each student, with the professor, will choose a topic to be presented in written and oral form and then open to discussion to the other students and the professor. Emphasis on literature review, especially related to recent scientific findings. Results of scientific research done by the student may be included in the presentation. One semester, two hours per week. Requisite: BIOL 204 and eight additional credits in biology.

BIOL 380**Special Topics****Three Credits**

This course has been designed to offer students the opportunity to study current issues in Biology. The course title and content are determined by the faculty in accordance with students' requests and the relevance of the subject. Special attention is given to recent scientific works, which may be enhanced with laboratory experiences. A student may register in Special Topics more than once if the subject differs from those previously taken. One semester, three lecture hours per week. Requisite: BIOL 204

BIOL 410**Methods in Molecular Biology****Four Credits**

Laboratory course that explores some of the techniques used in the field of molecular biology. One semester, six laboratory hours per week. Requisites: BIOL 331, BIOL 355 and BIOL 350.

BIOL 425**Seminar on Current Topics in Molecular and Cell Biology****Three Credits**

This seminar course will consider current literature in the fields of molecular genetics and cell physiology. Students enrolled in this course will present seminars and moderate classroom discussions. One semester, three lecture hours per week. Requisite: BIOL 410 or by agreement with professor.

BIOL 431**Biotechnology****Four Credits**

The Biotechnology course at UMET consists of the study of the underlying scientific principles behind recombinant DNA technology as well as their industrial, agricultural, pharmaceutical, and biomedical applications. The course emphasizes the techniques and skills used in biotechnology as well as the regulatory, quality control, ethical and legal implications of the field. One semester, three lecture hours and one three-hour laboratory per week.

Requisite: BIOL 320 and BIOL 340

CHEMISTRY

CHEM 105

Chemistry for Health Students

Four Credits

An introductory chemistry course designed for students of the Allied Health Sciences Programs. A survey of matter, chemical properties, and basic electronic configurations of the elements. Students will also study aqueous phase reactions and the use of radioisotopes in medicine. Organic functional groups, their structures, nomenclature, and reactions will be studied in relation to major organic molecules such as proteins, carbohydrates, nucleic acids, etc. Metabolic reactions of these molecules will be surveyed. One semester, three lecture hours and three laboratory hours per week. Requisite: MATH 102

CHEM 203

General Chemistry I

Four Credits

Systematic study of the chemistry basic concepts related with experimental measurements, structure of the matter, atomic theory, stoichiometry, quantum theory, periodicity of the elements, thermodynamics, gases laws, chemical bond, and molecular geometry. A semester, three hours lecture, and three-hour laboratory per week. Requisite: MATH 151 or MATH 153

CHEM 204

General Chemistry II

Four Credits

Second part of the systematic study of the chemistry basic concepts related with liquids and solids, solutions, chemical kinetics, chemical equilibrium, acids and bases, acid-base equilibrium, solubility and complex ions equilibrium, thermodynamics, electrochemistry, and nuclear chemistry. A semester, three hours lecture, and three-hour laboratory per week.

Requisite: CHEM 203 y MATH 151

CHEM 221

Analytical Chemistry

Four Credits

Introduction to qualitative and quantitative methods of classical chemistry analysis including the fundamental theoretical aspects of these methods. Topics covered include statistical analysis of experimental data, acid-base equilibrium, titrimetric and gravimetric analyses, extraction chemistry, potentiometry, and UV-visible absorption spectroscopy. The experimental section comprises laboratory techniques of classical quantitative analysis, including gravimetric and volumetric analysis, potentiometry, and basic spectrophotometric analysis. One semester, three hours lecture, and two three-hour laboratory sessions per week. Requisites: CHEM 204, MATH 152, MATH 153

CHEM 311**Inorganic Chemistry****Three Credits**

Inorganic Chemistry is the study of all the elements of the Periodic Table and their compounds based in their structures, explained in terms of modern atomic theory and the theories of the chemical bond. In this course bond formation is discussed from the standpoint of the valence bond and molecular orbitals theories. The structure of solids is also studied, including the thermodynamic considerations involved in the ionic crystal formation. The symmetry concept and the group theory are introduced and applied to study the molecular geometry of inorganic compounds. Different reaction types are studied in detail: acid-base, oxidation-reduction and complex formation, introducing the students to coordination chemistry. Finally special topics on inorganic chemistry are studied, including: electronic spectroscopy of complexes, reaction mechanism of d block metal complexes, organometallic compounds, catalysis, and bioinorganic chemistry. A semester, three hours lecture per week. Requisites: CHEM 352, MATH 221

CHEM 351**Organic Chemistry I****Four Credits**

Study of the chemistry of carbon compounds with emphasis on their nomenclature, bonding theories, structures, stereochemistry, electronic mechanisms, reactions, and synthesis. The correlation of reactivity with the structures and properties of the organic compounds, and the application of spectroscopic methods in the identification of their functional groups and the elucidation of their molecular structures is also emphasized. The course is complemented by a three-hour laboratory session, per week. Requisite: CHEM 204, MATH 151

CHEM 352**Organic Chemistry II****Four Credits**

Study of the chemistry of carbon compounds with emphasis on their nomenclature, bonding theories, structures, stereochemistry, electronic mechanisms, reactions, and synthesis. Emphasis is also given to the correlation of reactivity with the structures and properties of the organic compounds studied in this part of the course. The application of spectroscopic methods to the identification of their functional groups and the elucidation of their molecular structures are also stressed. The course is complemented by a three-hour laboratory session, per week.

Requisite: CHEM 351

CHEM 365**Undergraduate Research in Chemistry****Three Credits**

Introduction to research in chemistry at the undergraduate level, under the supervision and evaluation of a chemistry professor. The course has been designed to provide the student with research skills at the undergraduate level, and to awaken his/her motivation for scientific research, in general. Emphasis is given to the application of the scientific method. The student selects the research topic in agreement

with the research supervisor. A minimum of six-credit hours of research per semester is required, equivalent to nine contact hours of work in the laboratory. Prerequisite: CHEM 204, CHEM 352

CHEM 383

Biochemistry

Three Credits

Lecture and discussion course on the fundamental notions of the chemistry of vital processes. It includes the study of the structural and functional relationship of proteins, carbohydrates, lipids, nucleic acids and their metabolism. Metabolic processes related to energy storage and its utilization, also the transmission and expression of genetic information will be studied. One semester, three lecture hours. One semester, three hours lecture per week. Prerequisite: BIOL 203-204, CHEM 351-352

CHEM 390

Chemical Spectroscopy

Three Credits

The spectroscopic course is designed to chemistry students in the third year. The course includes three hours per week. The course provides the basic principles of infrared spectroscopy, nuclear magnetic resonance, spectroscopy of UV-Visible and Mass spectroscopy. In addition, main exercises to acquire the basic skills necessary to identification and elucidation of the structure of chemical compounds, specifically organic compounds.

Prerequisite: CHEM 352 and MATH 152

CHEM 420

Environmental Chemistry

Four Credits

Study of the chemical composition of the hydrosphere, biosphere, geosphere and the atmosphere. Study of the chemistry role in the environment, its impact in the problem of environmental pollution, and its contribution to the conservation of our natural resources and the appropriate control of the environment. The course will study the transportation, absorption, degradation and toxicity of chemical compounds from different sources. Special attention will be given to the Puerto Rico water and air pollution problems. The laws and agencies that regulate the water and air pollution in Puerto Rico; and the preparation of an Environmental Impact Evaluation (DIA) also will be discussed. The laboratory includes the analytical techniques used in the detection, identification and quantification of water and air pollutant's. One semester, three lecture hours and one three hour laboratory. Prerequisites: CHEM 351

CHEM 430

Instrumental Analysis

Four Credits

This course is designed to describe to the student the instruments most frequently used in modern chemical analysis. The topics covered are: basic electronics, chemical spectroscopy, chromatographic methods, mass spectrometry and electrochemical methods. Additionally, the student will be exposed to the accepted methods used to obtain and evaluate relevant analytical data such as quality control (QC), quality assurance (QA), system suitability test, project plan, sampling techniques, and statistical

correlations. Experiments include atomic and molecular spectroscopy, gas and liquid chromatography, and electrochemistry. One semester, three hours lecture, and two three-hour laboratory sessions per week. Requisite: CHEM 221, CHEM 352; MATH 221, PHSC 204

CHEM 435

Chemistry Seminar

Three Credits

The course includes the study of the chemical literature in order to strengthen and broaden the student's knowledge in the subjects covered in his previous studies in the area of chemistry and its application in research. The course includes the use of traditional and automated methods for storage and retrieval of chemical information. Emphasis will be given to the use of the Chemical Abstracts, and to Internet-based data banks and to other sources to access chemical information. The knowledge acquired in the course will be used to prepare a seminar in a topic of general interest in the area of modern chemistry. The topic of the seminar will be selected in consultation with the course instructor. Students will receive training in scientific writing and oral presentation to the faculty, students and general public. One semester, three hours lecture per week. Requisites: Co-requisite CHEM 464

CHEM 463

Physical Chemistry I

Three Credits

The Physical Chemistry I course is divided in two main topics: Thermodynamics and Electrochemistry. In the first topic calculations of Thermodynamic Magnitudes in different processes are studied using the Principles and Laws of Thermodynamics. It also analyzes chemical reactions through a thermodynamics view, establishing considerations about the energetic balance, its spontaneity and extension. The studies of homogeneous and heterogeneous systems in which the phase changes of the substances take place are also in the core of this topic. The second topic is concerned with the properties of solutions of electrolytes and with processes that occur at electrodes. The study of important properties of solutions of weak and strong electrolytes such as the resistance, the conductance, and the electrolytic conductivity will be discussed together with its different theories. This topic is also concerned with the thermodynamics of ions in solution, and several important matters are involved: the enthalpies and entropies of hydration of ions and the activity coefficients of ions. One semester, three hours lecture and three-hour laboratory session per week. Requisites: MATH 222, PHYS 204, CHEM 204, CHEM 221 and CHEM 352

CHEM 464

Physical Chemistry II

Four Credits

The Physical Chemistry II course is divided in two main topics: Quantum Mechanics and Kinetics. In the first topic introduces some of the basic principles of quantum mechanics. The concept of all the properties of a system are expressed in terms of a wave function which is obtained by solving the Schrödinger equation will be studied. The calculations of molecules will make possible to understand the nature of the chemical bond. The application of quantum mechanics to spectroscopy, the study of the absorption and emission of electromagnetic radiation, will be treated at the end of this topic. The second

topic is concerned with the rates and mechanisms of chemical reactions. The calculation of the rates of certain processes by use of a simple model of atoms and molecules in the gas phase for ideal and real gases will be elaborated. Chemical dynamics to learn about the role of the transition states and photochemistry to learn about the various processes that can occur after a molecule has absorbed a photon will be cover. The study of viscosity, diffusion, and electrical transport of ions will provide information that is useful in understanding the rates of reactions in liquids. One semester, three hours lecture and three-hour laboratory session per week. Requisite: CHEM 463

CHEM 470

Introduction to Molecular Modeling

Three Credits

This course will present to the students the fundamental ideas and concepts of modeling and molecular simulation. Among the main topics introduced are the basics of quantum chemistry and molecular mechanics, and the techniques of molecular dynamics and Monte Carlo simulation together with analysis of their results. Through experiments and practical modeling exercises done in the laboratory, the students will master the concepts explained during the course. Requisite: MATH 221, BIOL 204, CHEM 352, PHSC 204, COSC 111

COMPUTER

COSC 111

Computer Literacy

Three Credits

Introduction to the basic concepts of computer sciences. The general functions of the Central Processing Unit and the input and output devices are discussed. The students use some of the most popular application programs available in the market, such as electronic spreadsheets, word processors, and graphics. One semester, three lecture hours, and three laboratory hours per week.

COSC 113

Computer Applications

Three Credits

This is a continuation or second course for COSC 111. It is meant for students in the associate degree of computer science and for other student as a free elective. The course covers advanced topics in word processing, spreadsheet and presentation software. It also introduces students to a database program. One semester, three lecture hours, and three laboratory hours per week. Requisites: COSC 111, MATH 111

COSC 131

Programming Logic

Three Credits

Emphasizes the techniques of modular program design and development in a structured, language-independent manner. Includes problems analysis and their solution, in such a way that the computer can be directed to follow the problem-solving procedure. Pseudo code, flowcharts, and other diagrams

are used to develop the problem solving algorithms with the three basic control structures: sequence, selection, and repetition. One semester, three lecture hours, and three laboratory hours per week. Requisites: COSC 111, Co-requisite MATH 139

COSC 230

Programming in Computer Sciences I

Three Credits

This course provides students with the necessary knowledge and skill to use the Cobol language to program a computer. The course covers syntax, grammar and program structure in a modern computer system. It provides students concepts and practice using structured programming technics so solve problems of beginner, intermediate and advanced complexity. We teach both interactive and batch program with an emphasis on reading and writing text files. One semester, three lecture hours, and three laboratory hours per week. Requisites: COSC 131, MATH 112 or MATH 139

COSC 235

Computers Organization and Architecture

Three Credits

The organization and architecture of computers are studied in this course from the points of view of their structure (the way in which the components are interrelated) and function (the operation of each individual component as part of the structure). Includes a brief history of computers, the CPU, memories, input/output, operating systems, and modern-day processors, and microprocessors. An introduction to an assembler is included as part of the laboratory experience in the study of a microcomputer. Requisites: COSC 131, MATH 112

COSC 240

Programming in Computer Sciences II

Three Credits

This course provides information on the analysis and development of computer program algorithms that solve problems in sciences, mathematics, statistics, business, etc. Programs are designed and coded in C language and are properly debugged and documented. Emphasis is given on the disciplinary techniques of structured programming design and style. Requisites: COSC 131, MATH 139

COSC 245

Assembly Language

Three Credits

Introduction to the study of the architecture of a computer arithmetic and number representation, the instruction set of a microprocessor, programming in machine language assembler using a microcomputer, examples and applications. One semester, three lecture hours, and three laboratory hours per week. Requisites: COSC 235

COSC 330**Computer Communications****Three Credits**

This course introduces the essential terminology, elements and the architecture of modern communication systems. Special emphasis is given to the 5 layers of the TCP/IP communications suite, since it has become the universal standard for all types of communications. For comparison purposes we also present the Open Systems Interconnection (OSI) model developed by the International Organization for Standardization (ISO) with its seven layer. One semester, three lecture hours per week. Requisites: COSC 230

COSC 335**Data Structures****Three Credits**

Data Structure such as: queues, stacks, lists and trees; algorithms design and analysis for implementation, sorting and search will be discussed. Also, it will cover the dynamic memory utilization, graphs, relative efficiency analysis, programming optimization and hashing. One semester, three lecture hours, and three laboratory hours per week. Requisites: COSC 240, MATH 152 or MATH 153

COSC 340**System Analysis and Design****Three Credits**

This course discusses the components of an information system: the analysis and design of an organizational system cycle. The course covers the tools that are used; the strategies that are usually used in the implementation of a project and the major reasons why most of the projects fail. One semester, three lecture hours per week. Requisites: COSC 240

COSC 350**Programming Languages****Three Credits**

This course covers the concept of computer language design, applications and those elements that allow us to differentiate a computer language from another. The major elements are completely evaluate, some criterias are established in the justification for a better language efficiency and in the decision to select which language is better for a given problem. Differences are established based on languages categorization on those that are compiled and those that are interpreted. The syntaxes and semantic form of new computer languages like Prolog, JavaScript, LISP, Forth, Ruby and others are specially analyzed. One semester, three lecture hours, and three laboratory hours per week. Requisites: COSC 240

COSC 440**Operating Systems****Three Credits**

This course introduces the essential terminology, the elements of and the architecture of modern operating systems. The most important functions, process management, memory management, file

management, peripheral management and security are discussed in detail. Operating systems are classified by their intended use. One semester, three lecture hours, and three laboratory hours per week. Requisites: COSC 350, COSC 335

COSC 445

Data Base Systems

Three Credits

This is an introductory course on database management systems. It introduces the fundamental concepts of database design, implementation and management. It also prepares students to use current modern database systems and build a solid foundation for more advanced studies in database area. Students learn to code using the SQL language for data manipulation and data retrieval in a modern DBMS system. Requisites: COSC 335

COSC 450

Design and Analysis of Algorithms

Three Credits

The algorithm analysis and design course is designed for students in science and technology in the computer science. The course offers a general vision to the conceptualization of the following topics: techniques to design and analyze efficient algorithms by empathizing in methods which applications must be useful in practice. In this course is study several algorithm design strategies such as: divide and conquer, greedy method, dynamic programming, search algorithm, hash tables, graph algorithms, NP-complete problems. One semester, three lecture hours, and three laboratory hours per week. Requisites: COSC 335, COSC 350, MATH 340, and MATH 384

COSC 460, 461, 462

Topics in Computer Sciences

Three Credits

This course is an introduction to Artificial Intelligence (AI) with emphasis in design, implementation and evaluation of intelligent systems using techniques such as agent-based architectures, path-finding algorithms, machine learning methods and user modeling. Students will learn about core AI methods for solving complex problems including search strategies, knowledge-based techniques, and agent-based systems. Areas of application such as knowledge representation, natural language processing, expert systems, vision and robotics will be explored. The LISP programming language will also be introduced. In addition, the student will be able to design a prototype using Lego NXT Mindstorm Robotics System. One semester. Some topics may require three laboratory hours per week. Requisites: COSC 131, COSC 240, COSC 335

ENVIRONMENTAL SCIENCES

ENSC 101

Introduction to Environmental Sciences

Three Credits

Basic principles and concepts controlling the behavior of environmental systems, their structure and changes in time and space. One semester, three lecture hours per week.

ENSC 201

Introduction to Geology

Four Credits

Origin, physical characteristics, and evolution of Earth materials, its structure and relationship with emphasis on Puerto Rico. Includes laboratory and/or field trip experiences. One semester, three lecture hours, and three laboratory hours per week. Requisites: ENSC 101, ENSC 101L

ENSC 301

Geomorphology

Four Credits

A study of the origin and evolution of landforms, as part of the environment, its economical importance and the relationship with human society. Emphasis is done on tropical relief, with examples from Puerto Rico. The course includes fieldwork in coasts plans, hills, and mountains with different structure, rocks, and processes. One semester, three lecture hours and three laboratory hours per week. Requisites: ENSC 201 and ENSC 321.

ENSC 321

Hydrology

Three Credits

Study of freshwater and ground water movement, storage, and use. Environmental impact and protection of water resources are emphasized. One semester, three lecture hours per week. Requisites: ENSC 201

ENSC 380

Special Topics

Three Credits

Faculty professor accordingly with students' needs and subject relevance, will establish course contents. Special attention will be paid to recent advances on the chosen topic, which may be enriched by lab or field experiences. Requisites: Professor authorization.

ENSC 390

Natural History of Puerto Rico and the Caribbean

Three Credits

Study of the natural characteristics of the region, including evolution, biomes, life zones, major organisms and their relations to the environment. Requisites: ENSC 101, ENSC 101L, and ENSC 329

ENSC 399-499**Undergraduate Research in Environmental Sciences I-II****Four Credits**

Bibliographic, laboratory or field experiences obtained under the mentorship of a Universidad Metropolitana professor, or an external adviser properly approved by the Department of Science and Technology, that would certify individually the corresponding credit number to each semester according to the student's real possibilities and the tutor's request. Requisite: Professor authorization.

ENSC 411**Environmental Laws and Policies****Three Credits**

Introduction to environmental legislation's basic concepts and problems. The use of the main environmental laws as vehicles to diminish, prevent, punish and remedy those actions that affects the environment, the public health, and safety will be discussed. One semester, three lecture hours per week. Requisites: ENSC 101, ENSC 101L, and BIOL 329

ENSC 413**Marine Affairs****Three Credits**

Presentation and discussion at the undergraduate level of the different topics which compose the discipline of marine policy and management, including marine geography, marine policy, international ocean law, fisheries law, coastal zone management, and maritime transportation. In these topics, the application of core concepts with marine user-conflicts in Puerto Rico and the Caribbean are emphasized. One semester, three lecture hours per week.

Requisites: ENSC 101, OCEA 101

ENSC 415**Environmental Pollution – Compendium****Three Credits**

Consideration is given to contaminants transport and diffusion to the atmosphere, the soils, and the water, from micro scale to global. Includes measurements and control of the pollution, its legal aspects and quality standards. Requisites: ENSC 201, CHEM 305, and BIOL 329

ENSC 421**Case Studies Seminar I****Two Credits**

Evaluation of environmental policies by means of case studies. May include: food sources and population, energy resources, technology, water resources, biological resources, pollution control, waste management, and global change. Quantitative analysis and multidisciplinary approach will be used. Written reports are required. Requisites: ENSC 201, CHEM 305, and BIOL 329

**ENSC 443 Integrated Environmental
Laboratory in Environmental Science
Four Credits**

Environmental research and monitoring require numerous field, laboratory and statistical techniques to deal with the plethora of issues and approaches for addressing the challenges confronting our lives. This course is designed to provide a synopsis of these techniques thorough direct experience. Students will gain experience in the field collecting samples and data, in the laboratory processing and analyzing samples, at the computer organizing and summarizing results, and in the classroom evaluating environmental data and presenting findings. The application of simple statistics and mathematical models to environmental problems will also be explored. One semester, three lecture hours and three hours laboratory per week. Requisites: ENSC 201, CHEM 305, and BIOL 329

**ENSC 455
Solid Waste Management
Three Credits**

Public health, economics and policy analysis of the different aspects of the management, collection, storage or disposal of solid waste. Requisites: ENSC 201, CHEM 305, and BIOL 329

INSTRUMENTATION, AUTOMATION & CONTROL

**IACT 350
Industrial Networks
Three Credits**

This course will present the students the fundamentals of wired distributed local area networks and wireless mesh networks giving emphasis to their operation in secure industrial automated process control environment. A description of the applications of a robust process control/data acquisition network designed for high reliability/security, as defined by the ISA 99 Standard (IEC 62443). Also it will cover the implementation of wireless control networks based on ISA 100 standard. Topics include: the characteristics of network topologies, system hardware technologies (channels, physical media, connectors, and wireless transceivers), network hardware used for connectivity, system control configurations, cyber security, and communication buses. One semester three hours per week.

**IACT 400
Industrial Automation Control
Four Credits**

This course gives the student the elements of automation control technology applied to industrial processes. A comprehensive overview which integrates previous courses topics in network control communications, sensors, actuators, automation technology and programming is studied with an emphasis on practical applications, predictive analysis, testing and troubleshooting. Automation technology topics covered include: Computer Numerical Control (CNC), Programmable Logic Controllers (PLC) (ladder logic and discrete programming) and Industrial Robotics (types, methodologies and applications). An introduction to the manufacturing paradigms and environment, levels of automation

and safety measures is also covered. One semester, three hours per week lecture and three hours per week laboratory.

IACT 410

Electric Motors and Control

Four Credits

This course gives the student the essentials of electric motors structure, operation, maintenance and control based on a hands-on approach. Basic elements of motor structure and types are covered: mutual inductance, electromagnetic force, torque, horsepower, magnetic circuits and rotational speed. Single and three phase motors, their structure, torque vs. speed characteristics, operation, power and voltage rating, installation and troubleshooting are emphasized as well as their wiring, overload and over current protection. Application in industrial automation are also covered (control centers, circuits and devices) and disconnecting means applied to motor control. NEC tables are introduced as a tool to choose correct feeding lines, security measures and disconnecting means for electric motors and controller centers. One semester, three hours per week lecture and three hours per week laboratory.

IACT 450

Applied Process Control

Four Credits

This course gives the student an integrated study of the industrial processes based in the following 4 element: the process, its measurement, its evaluation and its control. General requirements, the description of the characteristics of the control loop (measurement, feedback and response), the basic electrical circuitry and the logical (digital) tools used to control a process are reviewed. As input measurements means pressure, level, temperature and flow are described, applied and troubleshoot (including their related sensing devices and circuits/physical characteristics) and included in the process control loop structure study. As output the Final Control elements (actuators, pumps and valves) characteristics and applications are studied as well as the electronic programming tools (PLC, PAC and personal computers) used to control them. One semester, three hours per week lecture and three hours per week laboratory.

IACT 460

Technical Documentation Applied to Projects

Three Credits

This course provides the student the knowledge to use proper technical writing tools to prepare the documents during the design, construction, commissioning and operation of a plant or factory. The student will develop proper documentation to synthesize a solution to the intended technical/managerial audience by listing goals/tasks, defining its scope, identifying resources needed, and listing risks. The student will develop and use the various tools that a technical writer uses on the job for information gathering to write procedures that conform to industry standards. The student will also learn the symbols used in industrial documents and will be able to understand a budget for the project, the assignation of resources, and the schedule to finish the project. The course will prepare the student to understand a structured and effective documentation for a project plan, and to monitor

changes using a graphical/table scheduling tools with the help of a computer. One semester, three hours of lecture per week.

MATHEMATICAL

MATH 101

Mathematical Reasoning I

Three Credits

This course offers the opportunity to acquire skills necessary to apply in the solution of situations that appear in life. It develops skills to solve operations with the cardinal numbers, decimal, fractional, whole and their applications. It introduces basic skills in the field of geometry and measurements in the Metric system (System the International) and English (American Units). This course meets weekly for 3 hours and includes one hour of laboratory for a total of four hours weekly.

MATH 102

Mathematical Reasoning II

Three Credits

The content of this course is designed to satisfy the necessities with the students of Communications, Social Sciences, Humanities, and Education in: Statistic and Probability, Elementary Algebra and Applications of Geometry. This includes basic Statistic, including probability and its applicability to the present world., This course meets weekly in three hours and includes one hour of laboratory for a total of four hours weekly.

MATH 103

Basic Mathematics for Teachers I

Three Credits

This course offers the opportunity to acquire mathematical skills necessary to apply in the solution of situations that appear in life and the profession. It develops skills of operations with real numbers and their applications. It also introduces basic skills in the field of geometry by its importance in life. One semester, three lecture hours per week. Requisite: Placement Test

MATH 104

Basic Mathematics for Teachers II

Three Credits

This course content is designed to satisfy the academic needs of the students of Communications, Social Sciences, Humanities, Health Sciences and Education. It includes the basic concepts of statistic, probability and its applicability to the present world, rates and proportions, percentages, one and two variables linear equations, and systems of equations, which have a great impact in today's world. This course meets weekly for three hours and includes one hour of laboratory for a total of four hours weekly. Requisite: Placement Test

MATH 111**Intermediate Algebra I****Three Credits**

Real number system, equations and inequalities in one variable, linear graphs, systems of equations and their applications.

One semester, three lecture hours and one laboratory hour per week. Requisite: Placement Test or MATH 102

MATH 112**Intermediate Algebra II****Three Credits**

Lineal equations, polynomials, factoring, rational expressions, rational exponents, radicals and equations, complex numbers, quadratic equations and its applications.

One semester, three lecture hours per week. Requisite: Placement Test or MATH 111

MATH 138**Mathematical Introductory for Sciences-First Part****Four Credits**

This course is designed as the first part of an intensive training in mathematics for science students that in the Math Placement test or College Board scores cannot start in Pre Calculus. The course includes the areas of Arithmetic, Algebra and Geometry. The main subjects covered are: arithmetical operations, algebraic operations, linear equations and inequalities, systems of equations, area and perimeter of polygons and circles, Cartesian coordinates, similarity and congruencies of triangles, basic theory of probability, statistics and the Theorem of Pythagoras. The solution of problems is emphasized. One semester, six hours per week. Requisite: Placement Test

MATH 139**Mathematical Introductory for Sciences – Second Part****Four Credits**

This course is designed as the second part of an intensive training in mathematics for science students that in the Math Placement test or College Board scores cannot start in Pre Calculus. It provides the bases theoretical and practical basic skills in Arithmetic, Algebra and Geometry initiated in the course Math 138. It includes the subjects of operations with polynomials, factorizations and zeros of polynomials, functions polynomials, rational and radical, graphical of linear and quadratic functions, operations with functions, transformations and combinations of linear and quadratic functions, complex numbers and their graphical representation and applications. One semester, six hours per week. Requisite: Placement Test or MATH 138

MATH 151**Pre-Calculus I****Four Credits**

This course presents the concepts of functions; polynomials, rational, exponential and logarithmic functions, systems of equations; applications, graphs, theory of equations, and analytic geometry. One semester, five lecture hours per week. Requisite: MATH 139 or Placement Test

MATH 152**Pre-Calculus II****Four Credits**

The study of trigonometry functions from a right triangle and the unit circle perspective. Mathematical solutions to real life situations, that can be simulated by right or oblique triangles, using the right triangle trigonometry and Laws of Sines and Cosines. Graphs of trigonometric functions, inverse trigonometric functions, identities and trigonometric equations, sum, difference, double angles formulas, trigonometric form of complex numbers, sequences, series, mathematical induction and the binomial theorem. One semester, five lecture hours per week. Requisite: MATH 151

MATH153**Pre-Calculus****Four Credits**

The course provides a general overview to the following topics: Polynomial Functions, Rational, Exponential, Logarithmic, Trigonometric, Charts, Theory of Equations, Analytical Geometry and Applications. It also includes series and Sequences. This course emphasizes the process of conceptualization to graphical methods, mathematical principles and solving verbal problem. One semester, five lecture hours per week. Requisites: Placement Test or Grade of A in Math 139

MATH 221**Calculus I****Four Credits**

This course includes the study and analysis of limits, continuity, derivatives and integrals of polynomial, rational, logarithm, exponential and trigonometric functions. Applications of differentiation to sketch the graph of a function, the concept of maximum and minimum values, velocity, acceleration and others. The indefinite and definite integral. Analysis and application of the Fundamental Theorem of Calculus. One semester, five lecture hours per week.

Requisite: MATH 152 or MATH 153

MATH 222**Calculus II****Four Credits**

Differentiation and integration of inverse trigonometric and hyperbolic functions; applications of the definite integral, indeterminate forms, methods of integration, infinite sequences and series, Taylor series and applications. One semester, five lecture hours per week. Requisite: MATH 221

MATH 223**Calculus III****Four Credits**

Analytic geometry, conic sections, polar, cylindrical and spherical coordinates; algebra and calculus of vector valued functions; differential calculus of functions of several variables, multiple integrals, line integrals, Green's Theorem. One semester, five lecture hours per week. Requisite: MATH 222

MATH 300**College Geometry****Three Credits**

Advanced study of the property of polygons, circles and solid figures; constructions and applications. One semester, three lecture hours per week. Requisite: MATH 221

MATH 350**Linear Algebra****Three Credits**

Systems of linear equations and matrices. Determinants and Cramer's Rule. Vectors in R^2 and R^3 . Vector Subspaces of R^n . Transformations. One semester, three lecture hours per week. Requisite: MATH 221

MATH 384**Probability and Statistics I****Three Credits**

Fundamentals of descriptive statistics; definitions and applications of the basic concepts of statistics. Measures of central tendency and dispersion, tables and graphs for representing data. Elements of probability, probability distributions and elementary theorems of conditional probability. Emphasis on the use of graphic calculator. One semester, three lecture hours per week. Requisite: MATH 112

MATH 395**Differential Equations****Three Credits**

First and second order homogeneous, linear differential equations; exact equations; initial value problems; variation of parameters and the method of undetermined coefficients for inhomogeneous problems; equations with regular singular points; series solutions, systems and non-linear differential equations. One semester, three lecture hours per week.

Requisites: MATH 222

MATH 411**Mathematical Probability****Three Credits**

Probability spaces, discrete and continuous random variables, joint and conditional distributions, mathematical expectation, central limit theorem, properties of stochastic convergence. One semester, three lecture hours per week

Requisite: MATH 223

MATH 420**Advanced Applied Mathematics****Three Credits**

This is an intermediate level course which brings, in more detail, some of the topics encountered in Calculus and Differential Equations. It also presents and introduces surveys of more advanced techniques, thereby serving as a bridge between elementary and advanced applied mathematics. The course is aimed at a wide audience including students of mathematics, statistics, physics, chemistry, mathematical biology, and engineering. The course will include: an advanced treatment of vector calculus; topics from linear algebra; an introduction to tensor analysis; advanced topics in the theory of power series; an introduction to complex analysis; and a study of Laplace and Fourier transforms and their applications to partial differential equations, physics, engineering and other disciplines. One semester, three lecture hours per week. Requisites: MATH 395, MATH 350

MATH 430**Applied Numerical Analysis****Three Credits**

This course is designed to introduce students of applied mathematics to the techniques and methods of designing algorithms to obtain numerical (approximations) solutions to applied mathematical problems. It is aimed at an audience which includes, as well as students of mathematics, students of physics, chemistry, statistics, biology, engineering, and economics. The course covers the techniques necessary to approximate solutions to nonlinear algebraic equations, large systems of linear equations, curve fitting problems (approximation of functions), differentiation and integration problems, and differential equations and systems of differential equation. One semester, three lecture hours per week. Requisite: MATH 350, MATH 395 and COSC 240 (knowledge of a programming language)

MATH 435**Mathematical Modeling****Three Credits**

This is an introductory course in Mathematical Modeling aimed at a wide audience including students of mathematics, statistics, physical sciences, biological sciences, engineering, and economics. The course introduces students to the interaction of Mathematics with other disciplines. The course covers a wide range of modern mathematical methods currently used in modeling. It also provides students with examples of current applications of mathematics to real-life problems arising in the fields of chemistry, physics, biology, ecology, engineering, and economics. One semester, three lecture hours per week. Requisite: MATH 395

PHYSICAL SCIENCE

PHSC 201

General Physics for the Health Science

Eight Credits

A study of the properties and laws of motion, work, energy, heat and temperature, electricity and magnetism, sound and ultrasound, optics and vision. Clinical applications of gas pressure and flow laws. Nuclear radiation, X-ray and laser and their application to contemporary medicine. In the laboratory, emphasis is given to the application of the principles covered in the lecture related to the health science. Two semesters, three lecture hours and one three-hour laboratory per week. Requisite: MATH 112

PHSC 203-204

General Physics

Eight Credits

Static, kinematics (lineal and rational), conservation laws, thermodynamics, adulatory movement, electrostatics, circuits and their components (AC, DC), magnetism, light theory, optics and modern physics. Two semesters, three lectures hours and one three hour laboratory per week. Requisites: MATH 221

PHSC 460

Electronics for Scientists

Four Credits

The class is an introduction to the basic electronic elements, including analogs and digital utilized in modern scientific experiments and in computer applications. The class is designed for science students interested in the topic. The emphasis will be practical, utilizing laboratory experiences to apply concepts learned in the lecture. One semester, three lecture hours per week and three laboratory hours per week.

SCIENCES

SCIE 111

Integrated Sciences I

Three Credits

This course integrates different science concepts applying the scientific method. It establishes the relationship between science and technology. Students will study the origin and development of the Universe, particularly that of planet Earth, and the origin and evolution of organisms. Students will study matter and energy concepts applied to systems. Various energy sources and uses are described as well as their environmental impact incorporating Puerto Rico's situations.

SCIE 112

Integrated Sciences II

Three Credits

This course integrates different science concepts through the scientific method. They will study the origin and evolution of organisms, the interaction among them, with the environment and the importance of

conservation of the environment and biodiversity. They will study the human body as a system emphasizing human and public health, nutrition and sexuality.

SCIS 101

Science Immersion Seminar

Three Credits

An interdisciplinary Science, Technology, Engineering, and Mathematics (STEM) course for first year students. It will introduce how to critically examine evidence and present arguments within a discipline. This course includes development of critical thinking, problem based learning, and inquiry-discovery methods. Responsible conduct for research and ethics, data collection, analysis and technical skills will be some of the topics covered from the viewpoint of science and technology.

School of Social Sciences, Humanities and Communications

SCHOOL OF SOCIAL SCIENCE, HUMANITIES, AND COMMUNICATIONS

In accordance with the mission of Universidad Metropolitana, the School of Social Science, Humanities and Communications (SSSHC) is focused on developing the students' analytical, scientific, cultural, and ethical competencies through a solid array of academic programs and a wide range of co-curricular and extracurricular activities. While strengthening the students' critical awareness and the students' active insertion in the civic realm, the School aims to cultivate not only competent professionals, but also engaged citizens, capable of maximizing the quality of their own lives and that of their surrounding communities.

The School's Mission seeks to:

1. Provide academic programs that respond to the educational, social and employment needs of the students and the communities;
2. Offer individualized learning designed to support the particular needs of the students;
3. Maximize students' creative and intellectual potential; and,
4. Develop positive attitudes of curiosity, enthusiasm, tolerance, understanding and social responsibility among our students.

The School has three Associate Deans and a Director of Graduate Programs.

CABÁN MONTALVO, MARIVELÍZ **Acting Dean and**

Associate Dean of Social Science

PhD, University of Puerto Rico
MA, University of Puerto Rico
BA, University of Puerto Rico

DOMENECH CRUZ ROXANNA

Associate Dean of Humanities

PhD, Centro de Estudios Avanzados de Puerto Rico y el Caribe
MA, University of Massachusetts/Amherst
BA, Smith College

COTTO COTTO, SUGELANIA

Acting Dean of Communications

MBA, Universidad Metropolitana
Post Graduate Degree, Universidad del Sagrado Corazón
BA, Universidad Metropolitana

MAMBRÚ TAVAREZ, VILMANIA G., Director of Graduate Programs

PsyD, Carlos Albizu University
MA, Carlos Albizu University
BA, Universidad Metropolitana

DEPARTMENT OF SOCIAL SCIENCE

The Department of Social Science is strongly committed to interdisciplinary learning, social responsibility and applied research. The Department provides students with the academic opportunities to engage in critical thinking, act upon the world and connect creatively to community work while stressing the importance of diversity and global awareness throughout its programs. The Department also offers two of the components of the general education curriculum required by all academic programs at the University. At present, the Department offers a Bachelor of Arts in Social Science in one of three areas: **Psychology, Social Work and Criminal Justice.**

OBJECTIVES:

- To prepare highly competent professionals, who can be leaders in the field
- To provide relevant academic and extra-curricular activities that enrich the learning experience
- To promote and support student research and practical experiences
- To promote and international connections and exchanges.

ADMISSION REQUIREMENTS

To be admitted to the Department of Social Sciences, the student must fulfill all of UMET's general admission requirements, including a general grade point average of 2.00. The student can request additional information regarding specific requirements from the Associate Dean of the Department.

Students with needs have a number of available resources for the development of their academic skills that includes computer aids, academic counselors, study areas, tutoring, and a learning center with state-of-the art computer software and equipment.

FACULTY

BERRIOS PÉREZ, LUIS A.

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JD, Interamerican University
BA, University of Puerto Rico

GARCÍA RODRÍGUEZ, CARLOS A.

Assistant Professor
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MA, Interamerican University of Puerto Rico
BA, University of Connecticut, Hartford

IRIZARRY RODRÍGUEZ, ALBERTO

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MA, University of Puerto Rico
BA, University of Puerto Rico

LÓPEZ CRUZ, NILDA

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BA, University of Puerto Rico

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Pos Doctorate, Smithsonian Institution, Washington, D.C.
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BA, Brown University, Rhode Island

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BA, University of Puerto Rico

NUN MARIN, YAMILE

Instructor
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Grad. Certificate – Geriatric- UPR
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Grad. Cert. - Gerontology - UPR
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BA, University of Puerto Rico

VAZQUEZ COLON, JAIME

Assistant Professor
BA, University of Puerto Rico
JD, Catholic University of Puerto Rico
LIM, Catholic University of Puerto Rico

BACHELOR OF ARTS IN SOCIAL SCIENCES MAJOR IN PSYCHOLOGY

123 Credits	Credits
General Education Courses	54
Social Sciences	15
Psychology	27
Electives in Psychology	9
Electives in Social Sciences	12
Free Electives	6

General Education Courses		54
SPAN 101-102 or SPAN 103-104 or SPAN 105-106	Introductory Spanish Language Course - Basic Level Introductory Spanish Language Course - Intermediate Level Introductory Spanish Language Course - Advanced Level	6
SPAN 215	Written Composition	3
ENGL 101-102 or ENGL 103-104 or ENGL 105-106	Introductory English Language Course - Basic Level Introductory English Language Course - Intermediate Level Introductory English Language Course - Advanced Level	6
ENGL 201-202 or ENGL 205-206	Second-Year English – Basic Level Second-Year English – Advanced Level - Intro. to Literature	6
SPAN 211	Appreciation of Puerto Rican Literature	3
SOSC 101-102	Introduction to the Social Sciences	6
HUMA 101-102	World Cultures	6
SCIE 111-112	Integrated Sciences I,II	6
COIS 101	Introduction to Computers	3
HIST 253	History of Puerto Rico	3
MATH 101-102	Mathematical Reasoning I,II	6

Psychology and Social Sciences		42
SOCI 201-202	Principles of Sociology	6
SOSC 225	Contemporary Socio-political Dilemmas	3
SOSC 303	Statistical Methods Applied to the Social Sciences	3
SOSC 320	Foundations Methods and Techniques in Social Research	3
PSYC 121-122	General Psychology	6
PSYC 225	Social Psychology	3
PSYC 321	Personality Theories	3
PSYC 330	Measurement of Personality Techniques	3
PSYC 350	Principles of Psychopathology	3

Psychology and Social Sciences		42
PSYC 410	Experimental Psychology	3
PSYC 421 or PSYC 423	Experimental Social Psychology Physiological Psychology	3
PSYC 430	Theories and Systems in Psychology	3

Electives in Psychology		9
Electives in Social Sciences		12
Free Electives		6

BACHELOR OF ARTS IN SOCIAL SCIENCES MAJOR IN CRIMINAL JUSTICE

120 Credits	Credits
General Education	57
Social Sciences	24
Criminal Justice	36
Electives in Criminal Justice	3

General Education Courses		57
SPAN 101-102 or SPAN 103-104 or SPAN 105-106	Introductory Spanish Language Course - Basic Level Introductory Spanish Language Course - Intermediate Level Introductory Spanish Language Course - Advanced Level	6
ENGL 101-102 or ENGL 103-104 or ENGL 105-106	Introductory English Language Course - Basic Level Introductory English Language Course - Intermediate Level Introductory English Language Course - Advanced Level	6
ENGL 201-202	Second-Year English – Basic Level	6
SPAN 211	Appreciation of Puerto Rican Literature	3
SPAN 215	Written Composition	3
SOSC 101-102	Introduction to the Social Sciences	6
HUMA 101-102	World Cultures	6
SCIE 111-112	Integrated Sciences I,II	6
COIS 101	Introduction to Computers	3
HIST 253	History of Puerto Rico	3
MATH 101-102	Mathematical Reasoning I,II	6
FYIS 101	First Year Induction Seminar	3

Criminal Justice and Social Sciences		60
SOCI 203	Principles of Sociology – Survey Course	3
SOSC 225	Contemporary Socio-Political Dilemmas	3
SOSC 303	Statistical Methods Applied to the Social Sciences	3
POSC 253 or	Political System of Puerto Rico	
ECON 300	The Economy of Puerto Rico	3
POSC 420 or	History of Political Thought	
ECON 350	International Economics	3
PSYC 123	General Psychology Survey Course	3
PSYC 350	Principles of Psychopathology	3
SOCI 325	Sociology of Deviance	3
CRIM 107	Introduction to Criminal Justice	3

Criminal Justice and Social Sciences		60
CRIM 200	Criminal Justice System of Puerto Rico	3
CRIM 300	General Principles of Penal Law	3
CRIM 301	Special Penal law in Criminal Legislation in Puerto Rico	3
CRIM 302	Criminal Procedure	3
CRIM 318	Police Organization and Management	3
CRIM 350	The Correctional System of Puerto Rico	3
CRIM 360	Criminal Investigation	3
CRIM 370	Law of Evidence	3
CRIM 380	Criminalistics	3
CRIM 400	Contemporary Human Rights	3
CRIM 401	Practicum	3

Electives in Criminal Justice	3
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BACHELOR OF ARTS IN SOCIAL SCIENCES MAJOR IN SOCIAL WORK

123 Credits	Credits
General Education	57
Social Sciences	18
Social Work	45
Electives in Social Work	3

General Education		57
SPAN 101-102	Introductory Spanish Language Course - Basic Level	6
ENGL 101-102	Introductory English Language Course - Basic Level	6
ENGL 201-202	Second-Year English – Basic Level	6
SPAN 211	Appreciation of Puerto Rican Literature	3
SPAN 215	Written Composition	3
SOSC 101-102	Introduction to the Social Sciences	6
HUMA 101-102	World Cultures	6
SCIE 111-112	Integrated Sciences I,II	6
COIS 101	Introduction to Computers	3
HIST 253	History of Puerto Rico	3
MATH 101-102	Mathematical Reasoning I,II	6
FYIS 101	First Year Induction Seminar	3

Social Sciences		18
PSYC 121-122	General Psychology	6
SOCI 203	Principles of Sociology Survey Course	3
SOSC 225	Contemporary Socio-Political Dilemmas	3
SOSC 303	Statistical Methods Applied to the Social Sciences (Survey)	3
SOCI 330	Sociology of the Marriage and the Family	3

Social Work		45
SOWO 260	Introduction to Social Work	3
SOWO 265	Social Policy and Social Services	3
SOWO 320	Communication Skills and Interview	3
SOWO 350	Social Work with Individual and Family	3
SOWO 358	Research Method in Social Work	3
SOWO 370	Human Being and Social Environment	3
SOWO 373	Cultural Diversity, Special Needs Population and Social Work	3
SOWO 387	Social Work and the Health	3

Social Work		45
SOWO 390	Family Violence and the Social Work Practice	3
SOWO 450	Social Work with Groups and Communities	3
SOWO 460	Recording and Analysis of Social Records	3
SOWO 480-482	Practicum Seminar I, II	6
SOWO 481-483	Supervised Practice I, II	6

Electives in Social Work the student will select three (3) credits among the following courses:		3
SOWO 425	Social Work and Gender	3
SOWO 400	Social Work with the Elderly Population	3
SOWO 397	Social Work in Industries	3
SOWO 380	The Child, the Adolescent and the Family	3
SOWO 360	Administration and Supervision in Social Welfare Agencies	3
GERO 301	Psychological Aspects of Aging	3
GERO 325	Death, Final Stage	3

COURSE DESCRIPTION

CRIMINAL JUSTICE

CRIM 107

Introduction to Criminal Justice

Three Credits

The course exposes students to the schools of thoughts and theories that explain deviant behavior and crime from the perspectives of biological, sociological, psychological and economic thoughts, among others. Students will review concepts related to the discipline, its historical development, crime statistics and strategies for crime prevention. solutions. Requisites: SOSC 101 - 102

CRIM 200

Criminal Justice System of Puerto Rico

Three Credits

This course examines the legal, constitutional, and judicial protections and guarantees of citizens, in accordance with Supreme Court decisions. Emphasis will be given to Civil Rights, the Bill of Rights, and the origins and development of the Constitution of the United States and Puerto Rico. Requisites: SOSC 101 – 102, CRIM 107

CRIM 218

Civil System

Three Credits

The course provides the student with knowledge of the historical process that promoted the development of our civil law system and its main components, including as Property Law, Family Law, Contracts, Estate Law and Torts. Requisites: SOSC 101-102, CRIM 107

CRIM 300

General Principles of Penal Law

Three Credits

Students study and analyze the origin, concepts, source and characteristics of Criminal Law. The course examines Criminal Law as a complex socio-legal phenomenon. The course specifically studies the relevant general principles in the application of current criminal law. Requisites: SOSC 101 – 102, CRIM 107

CRIM 301

Special Penal Laws in the Criminal Legislation in Puerto Rico

Three Credits

This course examines and analyzes special criminal laws; for example, legislation on minors, domestic violence, controlled substances and others—the latter, with a special emphasis on public health perspectives. Also, the course will review the general principles of criminal law. Requisites: SOSC 101 – 102, CRIM 200, CRIM 300

CRIM 302**Criminal Procedure****Three Credits**

The course provides an opportunity for the analysis of the various procedural laws that regulate the application of criminal law. Also, the course covers the criminal law judicial process and its stages. Finally, the student has an opportunity to study the constitutional rights available to the accused through criminal investigation and the judicial process. Requisites: SOSC 101 -102, CRIM 107, CRIM 200, CRIM 300, CRIM 301

CRIM 311**Juvenile Delinquency****Three Credits**

This course provides a multidisciplinary approach to the study of juvenile delinquency and its sociological, psychological, criminal, and legal perspectives. Students will study and analyze this social phenomenon and its relationship with family, neighborhood, school, religion, peer group, social class, and culture. The course also emphasizes juvenile delinquency in Puerto Rico, statistics, the criminal justice system structure, and processing regulations. Students will also be able to explore a variety of prevention strategies.

Requisites: SOSC 101 – 102, CRIM 107

CRIM 315**Administrative Law****Three Credits**

The course will cover the analytical and critical study of the Uniform Law of Administrative Proceedings of the Commonwealth of Puerto Rico. (Law 170, of August 12, 1988, as amended). Emphasis will be given to the basic aspects of administrative law litigation before government agencies and the procedural guarantees provided in the administrative procedures. Also, the process of judicial review of administrative decision both in quasi-judicial and quasi-legislative processes will be studied. Requisites: SOSC 101 – 102, CRIM 107

CRIM 318**Police Organization and Management****Three Credits**

Includes the study and analysis of the organizational structure and administrative procedures of the State and Municipal police in Puerto Rico. Functions, duties, powers and relations with the community, are also studied. Requisites: SOSC 101 – 102, CRIM 107, CRIM 200, CRIM 300, CRIM 301

CRIM 350**The Correctional System of Puerto Rico****Three Credits**

This course provides an overview of the Correctional System in Puerto Rico. It also aims to provide students with information concerning the origin of the Correction System according to the dispositions of Law Num. 116 of July 22, 1993 and the 1993 reorganization plan. Students will get acquainted with the history, creation, and development of the Corrections Administration, the Department of Corrections and Rehabilitation, the Administration of Juvenile Institutions, the Parole Board, the Office of Services Prior to Trial, and the Work and Study Corporations. The students will develop insight as to the nature of the penal population, their rights, rehabilitation programs, and incentives. Requisites: SOSC 101-102, CRIM 107, CRIM 200, CRIM 300, CRIM 301, CRIM 302

CRIM 360**Criminal Investigation****Three Credits**

This course consists of the study, description and analysis of Criminal Investigation techniques, including the collection, identification and preservation of evidence at the crime scene, as well as crime solving methodology and procedures. Students will also explore a variety of prevention strategies through the application of the constitutional rights during the investigations.

Requisites: SOSC 101-102, CRIM 107, CRIM 200, CRIM 300, CRIM 301, CRIM 302

CRIM 370**Law of Evidence****Three Credits**

This course is aimed at the study of the rules of evidence both in civil law and criminal law judicial proceedings. The course is designed to develop an understanding of the basic concepts of the rules of evidence. Emphasis will be given to the structure of the evidence, evidence and the judicial process, the rule of relevance, rule of exclusion, hearsay rule and its exceptions, privileges, offer of proof, photographs, writings, recordings, and demonstrative and scientific evidence. Requisites: SOSC 101-102, CRIM 107, CRIM 200, CRIM 300, CRIM 301, CRIM 302

CRIM 380**Criminalistics (Forensics)****Three Credits**

An introductory course to forensic science which consists of the study of the most recent scientific techniques for the collection, identification, treatment, and preservation of evidence used in a criminal investigation, as well as the constitutional principles that guarantee due process to an individual in the handling of the various types of evidence during a criminal investigation. Strong emphasis will be given to the importance and use of evidence in a judicial proceeding and in crime solving. Requisites: SOSC 101 – 102, CRIM 107, CRIM 200, CRIM 300, CRIM 301, CRIM 302, CRIM 360

CRIM 400**Contemporary Human Rights****Three Credits**

The course will explore the development of the concept of human rights. Through the study, analysis and knowledge of these rights, emphasis will be given to the concept of human dignity. Among the topics to be studied, are the following: the historical trajectory of human rights, the internationalization and implementation of the Charter of Human Rights of the organization of the United Nations, and the status of human rights in Puerto Rico. Requisites: SOSC 101 – 102, CRIM 107, CRIM 200

CRIM 401**Supervised Practicum****Three Credits**

The practicum experience provides students the opportunity to apply their knowledge of criminology theories, skills, and attitudes needed in the workplace. Students will do their student practice in a private or public agency related to the criminal justice system. The professor will act as a guide, resource provider, guidance counselor, and coordinator of this educational activity. The professor and the students will share the responsibility of selecting the agency which will best contribute to the individual student's professional development.

Requisites: SOSC 101-102, CRIM 107, CRIM 200, CRIM 300, CRIM 301, CRIM 302, CRIM 318, CRIM 350, CRIM 360, CRIM 370

ECONOMICS**ECON 300****The Economy of Puerto Rico****Three Credits**

Analysis of economic history and the present characteristics and trends of the Puerto Rican economy, considering its developmental model and process. Special emphasis on its structural elements, production, employment, income and growth. Study of international trade, international relations, and the economic relationship between Puerto Rico and the United States. Requisites: SOSC 101-102 or SOSC 103

ECON 350**International Economics****Three Credits**

Principles of international economics. Theory and practice of international trade and international finance with emphasis on the international relations between developed and developing countries. Analysis of international organizations and the new international economic order. Requisites: SOSC 101-102 or SOSC 103

GEOGRAPHY

GEOG 202

Elements of Geography

Three Credits

Principles of physical, human and cultural geography. Special attention will be given to the relationship between physical and cultural patterns with emphasis on the economy, population and social development. Requisites: SOSC 101-102

GERONTOLOGY

GERO 301

Psychological Aspects of Aging

Three Credits

This course examines the psychological dimension of the aging process due to the changes in functional, social, and cognitive behavior, furthering the exploration of some mental disorders in the aging person. Study of theories related to the adjustment process of aging on a psychological level. Requisites: SOSC 101-102 or SOSC 103

GERO 325

Death, Final Stage

Three Credits

Societal attitudes and practices around the concept of death. Aging and death are conceptualized in their psychological, sociocultural, biological and spiritual aspects. The different stages in the process of dying are analyzed, as well as mourning. Mediation strategies under these circumstances are discussed. Requisite: SOSC 101-102 or SOSC 103

POLITICAL SCIENCE

POSC 253

Political System of Puerto Rico

Three Credits

Historical development of the judicial and political systems of Puerto Rico. Analysis of the political principles of the constitution vis-a-vis the organization of government. Special attention is given to the present political status, political parties, relationship with the United States, and international relations. Requisites: SOSC 101-102 or SOSC 103

POSC 420

History of Political Thought

Three Credits

Critical analysis of political thought from the Greeks to the present. Analysis of the major schools of political thought and ideologies with special emphasis on twentieth and twentieth-first century political theory. Requisites: SOSC 101-102 or SOSC 103

PSYCHOLOGY

PSYC 121

General Psychology I

Three Credits

Introduction to the basic areas of general psychology, including theories, concepts and methods used in psychological studies of individual and social behavior. Attention to the psychological elements of human growth and development is introduced. Requisites: SOSC 101-102

PSYC 122

General Psychology II

Three Credits

This course works with the introduction of the basic areas of general psychology. It also works with theories, concepts and methods used in psychological studies of human development, the individual personality and social behavior. Requisites: SOSC 101-102, PSYC 121.

PSYC 123

General Psychology Survey Course

Three Credits

Survey course in general psychology. Study of basic principles, concepts and theories of individual and social behavior. Requisites: SOSC 101-102 or SOSC 103

PSYC 205

Group Dynamics

Three Credits

This course deals with the study of theories, methods and techniques of group dynamics. It works with analysis of the structure, nature, functions and leadership of groups in society. A special emphasis will be placed in the study of small groups. A theoretical systems approach is used towards the analysis of relevant aspects of group dynamics. Requisites: SOSC 101-102, PSYC 121-122

PSYC 210

Sexual Psychology

Three Credits

Theories, concepts and approaches to human sexuality, sexual relations, sexual dysfunctions and education as parts of normal human growth and development. Attention to sexual problems affecting contemporary society, particularly in the adolescent, including illness, sexual dysfunction and so-called sexual abuse and deviation. Requisites: SOSC 101-102, PSYC 121-122

PSYC 225**Social Psychology****Three Credits**

Scientific study of social life from the point of view of the individual. Emphasis on a critical analysis of the relationship between culture and personality. Attention to language, suggestion, imitation, attitudes, stereotypes, propaganda, leadership and conflicts. Requisites: SOSC 101-102, PSYC 121-122

PSYC 226**Developmental Psychology****Three Credits**

Study of human development from conception to death. Particular emphasis is given on interpersonal, cognitive and motivational processes. Learning, cognitive development and psychodynamic theories. Theoretical and empirical references for the study of human development. Requisites: SOSC 101-102, PSYC 121-122

PSYC 321**Personality Theories****Three Credits**

The concept of personality from the perspective of psychoanalytical, social, epistemological, existentialist and trait theories. Analysis of the philosophical basis of these theories, their application and relevance to the Puerto Rican personality. Requisites: SOSC 101-102, PSYC 121-122

PSYC 322**Theories and Techniques in Psychotherapy****Three Credits**

Theories of personality and learning for counseling, psychology and psychotherapy. Training and skills of the professional counselor. Behaviorist and humanistic approaches, and laboratory experience. Requisites: SOSC 101-102, PSYC 121-122, PSYC 321

PSYC 323**Introduction to Community Psychology****Three Credits**

Historical development and definition of community psychology. Analysis of the theories, concepts and available relevant data related to this discipline. Analysis of selected research. Requisites: SOSC 101-102, PSYC 121-122, PSYC 225

PSYC 330**Measurement of Personality Techniques****Three Credits**

Methods and techniques for measuring adjustment, sociability, intelligence, attitudes, and emotional stability. Status of the projective techniques, questionnaires, rating scales, etc. Requisites: SOSC 101-102, PSYC 121-122, PSYC 321

PSYC 343**Learning Theories****Three Credits**

Study of the nature and types of variables involved in the learning process. Current issues in learning theory. Requisites: SOSC 101-102, PSYC 121-122

PSYC 350**Principles of Psychopathology****Three Credits**

This course provides a critical analysis of what is considered normal and abnormal conduct using cultural and socio-economic elements as criteria to define both terms. Students will analyze the evolution of the concept of “mental illness” together with its epidemiology, etiology, diagnosis, and treatment. The course also explores different approaches to the treatment of mental illness. These approaches will be discussed considering the behavioral, biophysical, psychodynamic, phenomenological, integrative, and sociocultural points of view. Students will also become familiar with the Diagnostic and Statistical Manual of Mental Disorders (DSM). Requisites: SOSC 101-102, PSYC 121-122

PSYC 353**Psychology and Cinema****Three Credits**

This course brings an approach to the origin and historic development of the cinematographic industry. It will present films and fragments of films from different countries around the world. It also presents a critical analysis of films from different theoretical frames in psychology, recognizing cinema as a text of symbolic construction within a particular historical and cultural moment. Finally, it deals with the influence that this artistic piece of work has on a socio-cultural level and the significance, assimilation and repercussion that it has constructed in human beings at individual and collective levels. Requisites: SOSC 101-102, PSYC 121-122 or PSYC 123

PSYC 355**Industrial Psychology****Three Credits**

The main elements in the personnel selection process and organizational behavior, with special emphasis on the use of testing. Problems in testing different ethnic groups and nationalities. Study of the literature in these areas. Requisites: SOSC 101-102, PSYC 121-122 or PSYC 123

PSYC 360**Cognitive Psychology****Three Credits**

This course provides a thorough analysis of the theories and principles involved in the cognitive process. Besides studying the origin and hypotheses regarding cognitive psychology, the course emphasizes the following brain functions: cognition, sensation, perception, attention and learning. Requisites: SOSC 101-102, PSYC 121-122 or PSYC 123

PSYC 410**Experimental Psychology****Three Credits**

Introduction to the scientific study of behavior, with special emphasis on laboratory methods. Design of experiments, collection and analysis of data. Lectures will emphasize the results of scientific studies and their theoretical interpretation, with special attention to recent research findings in the field of psychology. Laboratory included. Requisites: SOSC 101-102, PSYC 121-122, SOSC 301-302 or SOSC 303

PSYC 421**Experimental Social Psychology****Three Credits**

A review of the methodology of social psychology, focusing on theoretical and experimental design in areas such as leadership, attitude, communication and others. Laboratory included. Requisites: PSYC 121-122, SOSC 301-302 or SOSC 303, PSYC 410

PSYC 423**Physiological Psychology****Three Credits**

This course provides an analysis of the relationship between the human body and behavior, emphasizing in the study of the brain, the organization of movement, automatic functions, cortical functions, and the processes related to sensation, perception, motivation, and emotion. Requisites: SOSC 101-102, PSYC 121-122

PSYC 425**Behavior Modification****Three Credits**

Critical analysis and application of the behavior modification principles derived from operant conditioning and social learning theories. Laboratory exercises will be conducted with the purpose of analyzing basic principles of behavior change. Requisites: SOSC 101-102, PSYC 121-122

PSYC 430**Theories and Systems in Psychology****Three Credits**

Comparative study of different theories, methods, concepts and techniques in psychology, with emphasis on the most recent trends and developments. Requisites: SOSC 101-102, PSYC 121-122, PSYC 321

SOCIOLOGY**SOCI 201****Principles of Sociology****Three Credits**

This course explores the origins of sociological thought and practice as a social science. In particular, it provides students with an introductory view of the principle works of key thinkers such as Comte, Marx, Weber etc. with the purpose of not only marking the theoretical and methodological starting points for social scientific inquiry, but also of offering students a conceptual map for them to embark on their own examinations of the social world.

Requisites: SOSC 101-102

SOCI 202**Principles of Sociology II****Three Credits**

This course focuses on the development of sociological theory and methods from WWII to the present time. Particular attention is given to the stocks of knowledge regarding power, inequality, social mobility and social movements, as well as minority group formation. The course also presents and discusses the sociological takes on modernity and post-modernity that have dominated the field in the alter half of the 20th and into the 21st centuries. Requisites: SOSC 101-102, SOCI 201

SOCI 203**Principles of Sociology/Survey Course****Three Credits**

This course serves as a compendium of SOCI 201-203. It thus offers students a panoramic view of the discipline of sociology, from its origins up to present time. The course presents the systematic study of the nature, development and functions of groups and institutions that affect individuals and their social interactions. Particular attention will be placed on the progression of debates and controversies throughout the history of sociological thought, in regards to both theory and method. Requisites: SOSC 101-102

SOCI 325**Sociology of Deviance****Three Credits**

Study of sociological theories explaining deviant behavior. Special attention will be given to the role of cultural values and norms in the definition of deviant behavior. Pathological aspects such as poverty, family disorganization, overpopulation, prostitution and alcoholism are studied. Requisites: SOSC 101-102, SOCI 201-202 or SOCI 203

SOCI 330**Sociology of Marriage and the Family****Three Credits**

Study of the family from sociological and socio-psychological perspectives. Emphasis is given to the study of marriage and the family as a social institution, as well as to the theories and methodology used in the scientific study of different forms of family. Issues such as the family and social change, sex roles and gender, premarital, marital and extramarital relationships will be studied. Requisites: SOSC 101-102; SOCI 201-202 or SOCI 203

SOCIAL SCIENCES**SOSC 101****Introduction to the Social Sciences I****Six Credits**

Course offers introductory view of general principles and fundamentals of the social sciences, specifically anthropology, sociology and psychology. By way of a guided use of the scientific method, social dynamics are scrutinized with particular attention to the role and effect of cultural, class, gender, race and ethnic differences as well as that of globalization in the contemporary world.

SOSC 102**Introduction to the Social Sciences II****Six Credits**

This is the follow up to the introduction to the social sciences course, focusing on political science, economics and demography. This course analyses the manners in which political systems obtain, maintain and lose power; the shifts and changes in world population; the effects of a globalized economy in Puerto Rico and abroad. Particular attention is placed on important variables such as cultural diversity, social class, gender, race and ethnicity. Requisites: SOSC 101

SOSC 103 Introduction to Social Sciences - Survey Course**Three Credits**

Survey course on general principles and foundations for the social science disciplines: anthropology, sociology, psychology, economics and political sciences. Analysis of social problems.

SOSC 225**Contemporary Socio-Political Dilemmas****Three Credits**

The course provides an interdisciplinary approach to the study of the relationships among the social, political, economic, and cultural elements of the contemporary world. Situations, problems, and events of the modern world will be used as interpretation models of the concepts and theories discussed in the course. Key issues addressed in the course include: the structure of the state, colonialism, nationalism and post-colonialism, modernity and post-modernity, globalization and the New International Economic Order, globalization and environmental and social deterioration.

Requisite: SOSC 101-102

SOSC 303**Statistical Methods Applied to the Social Sciences (Survey)****Three Credits**

The statistical methods course applied to the Social Sciences. The course provides a general vision of descriptive and inferential statistics pertinent to students of Criminal Justice, Psychology and Social Work.

Requisites: SOSC 101-102, MATH 101-102 or MATH 111-112

SOSC 320**Foundations, Methods and Techniques in Social Research****Three Credits**

Critical analysis of methods, techniques and strategies used in social research. Different theoretical and applied methods and models are examined for further application. Analysis of selected available research. Requisites: SOSC 101-102, MATH 101-102, SOSC 303

SOCIAL WORK**SOWO 260****Introduction to Social Work****Three Credits**

The course provides an introduction to social work as a profession. It studies its historical and philosophical development and its relationship with other professions. Examination and analysis of its principles, values, goals and sanctions, as well as the ethical code that governs the practice. The course also provides a general vision of professional functions and roles and professional organizations.

SOWO 265**Social Policy and Social Services****Three Credits**

This course studies the history, philosophy and development of social welfare as an essential social institution. It also studies the relationship between social problems and social policy

formulated by government services and programs that agencies deliver. Special attention is given to the role of the social worker in the development and implementation of social policy in contemporary Puerto Rico. Requisite: SOWO 260

SOWO 320

Communication Skills and Interview

Three Credits

Study of techniques and basic interpersonal abilities in the process of social work, with special emphasis is in the process of communication and interview skills.

Requisites: SOSC 101-102, SOWO 260, SOWO 265

SOWO 350

Social Work with Individual and Family

Three Credits

This course analyzes the family system and its influence over the individual and society. Attention will be given to the social complexity that impact the life cycle of individuals: from childhood to old age. The course includes the diverse modes of intervention at preventive and remedial levels so as to develop the necessary skills to attend the individual and the family as a system. Legislation and the public and private agencies that pertain to the family and its members will be identified. Requisites: SOSC 101-102, SOWO 260, SOWO 265

SOWO 358

Research Methods in Social Work

Three Credits

The purpose of the course is to initiate students in scientific research techniques in social work. Emphasis is given to the development of mastery in compiling and writing the purpose of a study, hypothesis formulation, sampling, data analysis and conclusions.

Requisite: SOSC 101-102, SOWO 260, SOWO 265, SOWO 320, SOWO 350, SOSC 303

SOWO 360

Administration and Supervision in Social Welfare Agencies

Three Credits

This course studies the basic principles, processes, practice and supervision in Social Services Agencies. It underlines the importance of this process in the provision of effective social services as well as the function of the Social Worker.

Requisites: SOSC 101-102, SOWO 260, SOWO 265, SOWO 320, SOWO 350

SOWO 370

Human Beings and their Social Environment

Three Credits

This course promotes the understanding of human phenomena in diverse settings: groups, communities and organizations. Different theoretical approaches are examined: systems theory, ecological, strengths and resilience, functionalist and conflict perspectives. The course also

includes ethical elements in human behavior and social settings. Life span aspects, particularly the bio-psycho-social-cultural dimensions of the development, are considered as well. Finally, diversity, ethical and social considerations regarding services and conditions that promote or restrain wellbeing are explored.

Requisites: SOSC 101-102, SOWO 260, SOWO 265, SOWO 350

SOWO 373

Cultural Diversity, Special Needs

Population and Social Work

Three Credits

The course examines the origins, dynamics, impact and needs related to Puerto Rican populations with special needs. Emphasis is given to different forms of discrimination and oppression institutionalized in contemporary society such as sexism, racism and aggression, among others. It also examines how these systems of oppression perpetuate in society the ideology of domination and subordination and social work roles and challenges under those circumstances. Cultural diversity is specially addressed and the importance of individual differences as an alternative for personal and professional enrichment.

Requisites: SOSC 101-102, SOWO 260, SOWO 265

SOWO 380

The Child, the Adolescent and the Family

Three Credits

This course familiarizes the student with social problems that impact directly children and adolescents and the present legislation that addresses the child and the family, including the identification of public and private agencies, programs, services and legislation that have been developed to face the social problems of the child and the adolescent in Puerto Rico.

Requisites: SOSC 101-102, SOWO 260, SOWO 265, SOWO 350

SOWO 387

Health and Social Work

Three Credits

This course includes the study of the functions and roles of the social worker in individual and group cases in the medical-social setting. State and federal laws related to medical social services as well as intervention strategies with medical patients will be discussed.

Requisites: SOSC 101-102, SOWO 260, SOWO 265

SOWO 390

Family Violence and the Social Work

Three Credits

This course studies the definitions and the magnitude of family violence in the contemporary world. It emphasizes the history, etiology, myths, and the dynamics in child abuse, incest, violence, fraternal violence, abuse of women and men, abuse and negligence of older people. It also includes the political issues, programs and services and the guides to prevent violence in the

home. It also investigates various theories and strategies used frequently in domestic violence studies. Requisites: SOSC 101-102, SOWO 260, SOWO 265, SOWO 350

SOWO 400

Social Work with Elder Population

Three Credits

This course offers a bio-psychosocial view of the aging process. It covers the aging process as part of the life cycle that demands a series of adjustments on individuals, family and community levels. It studies the position occupied by the elder person in the contemporary world. Requisites: SOSC 101-102 or SOSC 103, SOWO 260

SOWO 425

Social Work and Gender

Three Credits

The course approaches the theme of roles based on gender and the socio-psychological nature of stereotypes surrounding the behavior of men and women. The study and analysis of the effects of stereotypes in the lives of people in the family as well as in the community. Requisites: SOSC 101-102, SOWO 260, SOWO 265

SOWO 450

Social Work with Groups and Communities

Three Credits

The course intends to develop the capacity of the student to understand different social roles that exist in groups and the impact they have on the community. It will give special attention to the group leader and the different leadership styles. It will address possible strategies to work and prevent different situations present in small groups and communities as social systems. Requisites: SOSC 101-102, SOWO 260, SOWO 265, SOWO 320, SOWO 350

SOWO 460

Recording and Analysis of Social Records

Three Credits

The course emphasizes the writing aspect of social records for individuals, groups and communities. Records used by social services agencies will be analyzed. Ethnic aspects in the management of information obtained from interview and case analysis will be discussed. Requisites: SOSC 101-102, SOWO 260, SOWO 265, SOWO 320, SOWO 350

SOWO 480-481

Practicum Seminar I and Supervised Practicum in Social Work I

Six Credits

Required courses of all social work majors to promote the development of the necessary abilities for the practice of social work in organisms of social welfare of several kinds. The courses emphasize the adaptive abilities, as well as the resources and the demands imposed by the surroundings of the persons. The students will have the opportunity to practice with families,

groups and individuals. Student must enroll in both courses concurrently after having fulfilled all Requisites. Non-majors may not enroll. The practice seminar (SOWO 480) consists of 45 hours at the University, and the supervised Practice (SOWO 481) requires the student to complete 200 hours at the practice site. Requisites: SOSC 101-102, SOWO 260, SOWO 265, SOWO 320, SOWO 350, SOWO 358, SOWO 370, SOWO 390, SOWO 450, SOWO 460

SOWO 482-483

Practicum Seminar II and Supervised Practicum in Social Work II

Six Credits

Both these courses (SOWO 482 and 483) constitute the more advanced level of the social work major to facilitate the integration of knowledge, tasks and practical skills acquired during the process of education. The course will review the concepts of intervention with systems such as families, groups, communities and organizations, giving special attention to strategies and models of social work intervention and professional ethics. Student must enroll in both courses concurrently after having fulfilled all Requisites. Non-majors may not enroll. The practice seminar (SOWO 482) consists of 45 hours at the University and the supervised Practice (SOWO 483) requires the student to complete 200 hours at the practice site. Requisites: SOSC 101-102, SOWO 260, SOWO 265, SOWO 320, SOWO 350, SOWO 358, SOWO 370, SOWO 373, SOWO 390, SOWO 450, SOWO 460, SOWO 480-481.

SCHOOL OF SOCIAL SCIENCE, HUMANITIES, AND COMMUNICATIONS

In accordance with the mission of Universidad Metropolitana, the School of Social Science, Humanities and Communications (SSSHC) is focused on developing the students' analytical, scientific, cultural, and ethical competencies through a solid array of academic programs and a wide range of co-curricular and extracurricular activities. While strengthening the students' critical awareness and the students' active insertion in the civic realm, the School aims to cultivate not only competent professionals, but also engaged citizens, capable of maximizing the quality of their own lives and that of their surrounding communities.

The School's Mission seeks to:

1. Provide academic programs that respond to the educational, social and employment needs of the students and the communities;
2. Offer individualized learning designed to support the particular needs of the students;
3. Maximize students' creative and intellectual potential; and,
4. Develop positive attitudes of curiosity, enthusiasm, tolerance, understanding and social responsibility among our students.

The School has three Associate Deans and a Director of Graduate Programs.

CABÁN MONTALVO, MARIVELÍZ

Acting Dean and

Associate Dean of Social Science

PhD, University of Puerto Rico

MA, University of Puerto Rico

BA, University of Puerto Rico

DOMENECH CRUZ ROXANNA

Associate Dean of Humanities

PhD, Centro de Estudios Avanzados de Puerto Rico y el Caribe

MA, University of Massachusetts/Amherst

BA, Smith College

COTTO COTTO, SUGELANIA

Acting Dean of Communications

MBA, Universidad Metropolitana

Post Graduate Degree, Universidad del Sagrado Corazón

BA, Universidad Metropolitana

MAMBRÚ TAVAREZ, VILMANIA G., Director of Graduate Programs

PsyD, Carlos Albizu University

MA, Carlos Albizu University

BA, Universidad Metropolitana

DEPARTMENT OF SOCIAL SCIENCE

The Department of Social Science is strongly committed to interdisciplinary learning, social responsibility and applied research. The Department provides students with the academic opportunities to engage in critical thinking, act upon the world and connect creatively to community work while stressing the importance of diversity and global awareness throughout its programs. The Department also offers two of the components of the general education curriculum required by all academic programs at the University. At present, the Department offers a Bachelor of Arts in Social Science in one of three areas: **Psychology, Social Work and Criminal Justice.**

OBJECTIVES:

- To prepare highly competent professionals, who can be leaders in the field
- To provide relevant academic and extra-curricular activities that enrich the learning experience
- To promote and support student research and practical experiences
- To promote and international connections and exchanges.

ADMISSION REQUIREMENTS

To be admitted to the Department of Social Sciences, the student must fulfill all of UMET's general admission requirements, including a general grade point average of 2.00. The student can request additional information regarding specific requirements from the Associate Dean of the Department.

Students with needs have a number of available resources for the development of their academic skills that includes computer aids, academic counselors, study areas, tutoring, and a learning center with state-of-the art computer software and equipment.

FACULTY

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LIM, Catholic University of Puerto Rico

BACHELOR OF ARTS IN SOCIAL SCIENCES MAJOR IN PSYCHOLOGY

123 Credits	Credits
General Education Courses	54
Social Sciences	15
Psychology	27
Electives in Psychology	9
Electives in Social Sciences	12
Free Electives	6

General Education Courses		54
SPAN 101-102 or SPAN 103-104 or SPAN 105-106	Introductory Spanish Language Course - Basic Level Introductory Spanish Language Course - Intermediate Level Introductory Spanish Language Course - Advanced Level	6
SPAN 215	Written Composition	3
ENGL 101-102 or ENGL 103-104 or ENGL 105-106	Introductory English Language Course - Basic Level Introductory English Language Course - Intermediate Level Introductory English Language Course - Advanced Level	6
ENGL 201-202 or ENGL 205-206	Second-Year English – Basic Level Second-Year English – Advanced Level - Intro. to Literature	6
SPAN 211	Appreciation of Puerto Rican Literature	3
SOSC 101-102	Introduction to the Social Sciences	6
HUMA 101-102	World Cultures	6
SCIE 111-112	Integrated Sciences I,II	6
COIS 101	Introduction to Computers	3
HIST 253	History of Puerto Rico	3
MATH 101-102	Mathematical Reasoning I,II	6

Psychology and Social Sciences		42
SOCI 201-202	Principles of Sociology	6
SOSC 225	Contemporary Socio-political Dilemmas	3
SOSC 303	Statistical Methods Applied to the Social Sciences	3
SOSC 320	Foundations Methods and Techniques in Social Research	3
PSYC 121-122	General Psychology	6
PSYC 225	Social Psychology	3
PSYC 321	Personality Theories	3
PSYC 330	Measurement of Personality Techniques	3
PSYC 350	Principles of Psychopathology	3

Psychology and Social Sciences		42
PSYC 410	Experimental Psychology	3
PSYC 421 or PSYC 423	Experimental Social Psychology Physiological Psychology	3
PSYC 430	Theories and Systems in Psychology	3

Electives in Psychology		9
Electives in Social Sciences		12
Free Electives		6

BACHELOR OF ARTS IN SOCIAL SCIENCES MAJOR IN CRIMINAL JUSTICE

120 Credits	Credits
General Education	57
Social Sciences	24
Criminal Justice	36
Electives in Criminal Justice	3

General Education Courses		57
SPAN 101-102 or SPAN 103-104 or SPAN 105-106	Introductory Spanish Language Course - Basic Level Introductory Spanish Language Course - Intermediate Level Introductory Spanish Language Course - Advanced Level	6
ENGL 101-102 or ENGL 103-104 or ENGL 105-106	Introductory English Language Course - Basic Level Introductory English Language Course - Intermediate Level Introductory English Language Course - Advanced Level	6
ENGL 201-202	Second-Year English – Basic Level	6
SPAN 211	Appreciation of Puerto Rican Literature	3
SPAN 215	Written Composition	3
SOSC 101-102	Introduction to the Social Sciences	6
HUMA 101-102	World Cultures	6
SCIE 111-112	Integrated Sciences I,II	6
COIS 101	Introduction to Computers	3
HIST 253	History of Puerto Rico	3
MATH 101-102	Mathematical Reasoning I,II	6
FYIS 101	First Year Induction Seminar	3

Criminal Justice and Social Sciences		60
SOCI 203	Principles of Sociology – Survey Course	3
SOSC 225	Contemporary Socio-Political Dilemmas	3
SOSC 303	Statistical Methods Applied to the Social Sciences	3
POSC 253 or	Political System of Puerto Rico	
ECON 300	The Economy of Puerto Rico	3
POSC 420 or	History of Political Thought	
ECON 350	International Economics	3
PSYC 123	General Psychology Survey Course	3
PSYC 350	Principles of Psychopathology	3
SOCI 325	Sociology of Deviance	3
CRIM 107	Introduction to Criminal Justice	3

Criminal Justice and Social Sciences		60
CRIM 200	Criminal Justice System of Puerto Rico	3
CRIM 300	General Principles of Penal Law	3
CRIM 301	Special Penal law in Criminal Legislation in Puerto Rico	3
CRIM 302	Criminal Procedure	3
CRIM 318	Police Organization and Management	3
CRIM 350	The Correctional System of Puerto Rico	3
CRIM 360	Criminal Investigation	3
CRIM 370	Law of Evidence	3
CRIM 380	Criminalistics	3
CRIM 400	Contemporary Human Rights	3
CRIM 401	Practicum	3

Electives in Criminal Justice	3
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BACHELOR OF ARTS IN SOCIAL SCIENCES MAJOR IN SOCIAL WORK

123 Credits	Credits
General Education	57
Social Sciences	18
Social Work	45
Electives in Social Work	3

General Education		57
SPAN 101-102	Introductory Spanish Language Course - Basic Level	6
ENGL 101-102	Introductory English Language Course - Basic Level	6
ENGL 201-202	Second-Year English – Basic Level	6
SPAN 211	Appreciation of Puerto Rican Literature	3
SPAN 215	Written Composition	3
SOSC 101-102	Introduction to the Social Sciences	6
HUMA 101-102	World Cultures	6
SCIE 111-112	Integrated Sciences I,II	6
COIS 101	Introduction to Computers	3
HIST 253	History of Puerto Rico	3
MATH 101-102	Mathematical Reasoning I,II	6
FYIS 101	First Year Induction Seminar	3

Social Sciences		18
PSYC 121-122	General Psychology	6
SOCI 203	Principles of Sociology Survey Course	3
SOSC 225	Contemporary Socio-Political Dilemmas	3
SOSC 303	Statistical Methods Applied to the Social Sciences (Survey)	3
SOCI 330	Sociology of the Marriage and the Family	3

Social Work		45
SOWO 260	Introduction to Social Work	3
SOWO 265	Social Policy and Social Services	3
SOWO 320	Communication Skills and Interview	3
SOWO 350	Social Work with Individual and Family	3
SOWO 358	Research Method in Social Work	3
SOWO 370	Human Being and Social Environment	3
SOWO 373	Cultural Diversity, Special Needs Population and Social Work	3

Social Work		45
SOWO 387	Social Work and the Health	3
SOWO 390	Family Violence and the Social Work Practice	3
SOWO 450	Social Work with Groups and Communities	3
SOWO 460	Recording and Analysis of Social Records	3
SOWO 480-482	Practicum Seminar I,II	6
SOWO 481-483	Supervised Practice I,II	6

Electives in Social Work the student will select three (3) credits among the following courses:		3
SOWO 425	Social Work and Gender	3
SOWO 400	Social Work with the Elderly Population	3
SOWO 397	Social Work in Industries	3
SOWO 380	The Child, the Adolescent and the Family	3
SOWO 360	Administration and Supervision in Social Welfare Agencies	3

COURSE DESCRIPTION

CRIMINAL JUSTICE

CRIM 107

Introduction to Criminal Justice

Three Credits

The course exposes students to the schools of thoughts and theories that explain deviant behavior and crime from the perspectives of biological, sociological, psychological and economic thoughts, among others. Students will review concepts related to the discipline, its historical development, crime statistics and strategies for crime prevention. solutions. Requisites: SOSC 101 - 102

CRIM 200

Criminal Justice System of Puerto Rico

Three Credits

This course examines the legal, constitutional, and judicial protections and guarantees of citizens, in accordance with Supreme Court decisions. Emphasis will be given to Civil Rights, the Bill of Rights, and the origins and development of the Constitution of the United States and Puerto Rico. Requisites: SOSC 101 – 102, CRIM 107

CRIM 218

Civil System

Three Credits

The course provides the student with knowledge of the historical process that promoted the development of our civil law system and its main components, including as Property Law, Family Law, Contracts, Estate Law and Torts. Requisites: SOSC 101-102, CRIM 107

CRIM 300

General Principles of Penal Law

Three Credits

Students study and analyze the origin, concepts, source and characteristics of Criminal Law. The course examines Criminal Law as a complex socio-legal phenomenon. The course specifically studies the relevant general principles in the application of current criminal law. Requisites: SOSC 101 – 102, CRIM 107

CRIM 301

Special Penal Laws in the Criminal Legislation in Puerto Rico

Three Credits

This course examines and analyzes special criminal laws; for example, legislation on minors, domestic violence, controlled substances and others—the latter, with a special emphasis on public health perspectives. Also, the course will review the general principles of criminal law. Requisites: SOSC 101 – 102, CRIM 200, CRIM 300

CRIM 302**Criminal Procedure****Three Credits**

The course provides an opportunity for the analysis of the various procedural laws that regulate the application of criminal law. Also, the course covers the criminal law judicial process and its stages. Finally, the student has an opportunity to study the constitutional rights available to the accused through criminal investigation and the judicial process. Requisites: SOSC 101 -102, CRIM 107, CRIM 200, CRIM 300, CRIM 301

CRIM 311**Juvenile Delinquency****Three Credits**

This course provides a multidisciplinary approach to the study of juvenile delinquency and its sociological, psychological, criminal, and legal perspectives. Students will study and analyze this social phenomenon and its relationship with family, neighborhood, school, religion, peer group, social class, and culture. The course also emphasizes juvenile delinquency in Puerto Rico, statistics, the criminal justice system structure, and processing regulations. Students will also be able to explore a variety of prevention strategies.

Requisites: SOSC 101 – 102, CRIM 107

CRIM 315**Administrative Law****Three Credits**

The course will cover the analytical and critical study of the Uniform Law of Administrative Proceedings of the Commonwealth of Puerto Rico. (Law 170, of August 12, 1988, as amended). Emphasis will be given to the basic aspects of administrative law litigation before government agencies and the procedural guarantees provided in the administrative procedures. Also, the process of judicial review of administrative decision both in quasi-judicial and quasi-legislative processes will be studied. Requisites: SOSC 101 – 102, CRIM 107

CRIM 318**Police Organization and Management****Three Credits**

Includes the study and analysis of the organizational structure and administrative procedures of the State and Municipal police in Puerto Rico. Functions, duties, powers and relations with the community, are also studied. Requisites: SOSC 101 – 102, CRIM 107, CRIM 200, CRIM 300, CRIM 301

CRIM 350**The Correctional System of Puerto Rico****Three Credits**

This course provides an overview of the Correctional System in Puerto Rico. It also aims to provide students with information concerning the origin of the Correction System according to the dispositions of Law Num. 116 of July 22, 1993 and the 1993 reorganization plan. Students will get acquainted with

the history, creation, and development of the Corrections Administration, the Department of Corrections and Rehabilitation, the Administration of Juvenile Institutions, the Parole Board, the Office of Services Prior to Trial, and the Work and Study Corporations. The students will develop insight as to the nature of the penal population, their rights, rehabilitation programs, and incentives. Requisites: SOSC 101-102, CRIM 107, CRIM 200, CRIM 300, CRIM 301, CRIM 302

CRIM 360

Criminal Investigation

Three Credits

This course consists of the study, description and analysis of Criminal Investigation techniques, including the collection, identification and preservation of evidence at the crime scene, as well as crime solving methodology and procedures. Students will also explore a variety of prevention strategies through the application of the constitutional rights during the investigations. Requisites: SOSC 101-102, CRIM 107, CRIM 200, CRIM 300, CRIM 301, CRIM 302

CRIM 370

Law of Evidence

Three Credits

This course is aimed at the study of the rules of evidence both in civil law and criminal law judicial proceedings. The course is designed to develop an understanding of the basic concepts of the rules of evidence. Emphasis will be given to the structure of the evidence, evidence and the judicial process, the rule of relevance, rule of exclusion, hearsay rule and its exceptions, privileges, offer of proof, photographs, writings, recordings, and demonstrative and scientific evidence. Requisites: SOSC 101-102, CRIM 107, CRIM 200, CRIM 300, CRIM 301, CRIM 302

CRIM 380

Criminalistics

Three Credits

An introductory course to forensic science which consists of the study of the most recent scientific techniques for the collection, identification, treatment, and preservation of evidence used in a criminal investigation, as well as the constitutional principles that guarantee due process to an individual in the handling of the various types of evidence during a criminal investigation. Strong emphasis will be given to the importance and use of evidence in a judicial proceeding and in crime solving.

Requisites: SOSC 101 – 102, CRIM 107, CRIM 200, CRIM 300, CRIM 301, CRIM 302, CRIM 360

CRIM 400

Contemporary Human Rights

Three Credits

The course will explore the development of the concept of human rights. Through the study, analysis and knowledge of these rights, emphasis will be given to the concept of human dignity. Among the topics to be studied, are the following: the historical trajectory of human rights, the internationalization and implementation of the Charter of Human Rights of the organization of the United Nations, and the status of human rights in Puerto Rico. Requisites: SOSC 101 – 102, CRIM 107, CRIM 200

CRIM 401**Supervised Practicum****Three Credits**

The practicum experience provides students the opportunity to apply their knowledge of criminology theories, skills, and attitudes needed in the workplace. Students will do their student practice in a private or public agency related to the criminal justice system. The professor will act as a guide, resource provider, guidance counselor, and coordinator of this educational activity. The professor and the students will share the responsibility of selecting the agency which will best contribute to the individual student's professional development. Requisites: SOSC 101-102, CRIM 107, CRIM 200, CRIM 300, CRIM 301, CRIM 302, CRIM 318, CRIM 350, CRIM 360, CRIM 370

ECONOMICS**ECON 300****The Economy of Puerto Rico****Three Credits**

Analysis of economic history and the present characteristics and trends of the Puerto Rican economy, considering its developmental model and process. Special emphasis on its structural elements, production, employment, income and growth. Study of international trade, international relations, and the economic relationship between Puerto Rico and the United States. Requisites: SOSC 101-102 or SOSC 103

ECON 350**International Economics****Three Credits**

Principles of international economics. Theory and practice of international trade and international finance with emphasis on the international relations between developed and developing countries. Analysis of international organizations and the new international economic order. Requisites: SOSC 101-102 or SOSC 103

GEOGRAPHY**GEOG 202****Elements of Geography****Three Credits**

Principles of physical, human and cultural geography. Special attention will be given to the relationship between physical and cultural patterns with emphasis on the economy, population and social development. Requisites: SOSC 101-102

GERONTOLOGY

GERO 301

Psychological Aspects of Aging

Three Credits

This course examines the psychological dimension of the aging process due to the changes in functional, social, and cognitive behavior, furthering the exploration of some mental disorders in the aging person. Study of theories related to the adjustment process of aging on a psychological level.

Requisites: SOSC 101-102 or SOSC 103

GERO 325

Death, Final Stage

Three Credits

Societal attitudes and practices around the concept of death. Aging and death are conceptualized in their psychological, sociocultural, biological and spiritual aspects. The different stages in the process of dying are analyzed, as well as mourning. Mediation strategies under these circumstances are discussed.

Requisite: SOSC 101-102 or SOSC 103

POLITICAL SCIENCE

POSC 253

Political System of Puerto Rico

Three Credits

Historical development of the judicial and political systems of Puerto Rico. Analysis of the political principles of the constitution vis-a-vis the organization of government. Special attention is given to the present political status, political parties, relationship with the United States, and international relations.

Requisites: SOSC 101-102 or SOSC 103

POSC 420

History of Political Thought

Three Credits

Critical analysis of political thought from the Greeks to the present. Analysis of the major schools of political thought and ideologies with special emphasis on twentieth and twentieth-first century political theory. Requisites: SOSC 101-102 or SOSC 103

PSYCHOLOGY

PSYC 121

General Psychology I

Three Credits

Introduction to the basic areas of general psychology, including theories, concepts and methods used in psychological studies of individual and social behavior. Attention to the psychological elements of human growth and development is introduced. Requisites: SOSC 101-102

PSYC 122**General Psychology II****Three Credits**

This course works with the introduction of the basic areas of general psychology. It also works with theories, concepts and methods used in psychological studies of human development, the individual personality and social behavior. Requisites: SOSC 101-102, PSYC 121.

PSYC 123**General Psychology Survey Course****Three Credits**

Survey course in general psychology. Study of basic principles, concepts and theories of individual and social behavior. Requisites: SOSC 101-102 or SOSC 103

PSYC 205**Group Dynamics****Three Credits**

This course deals with the study of theories, methods and techniques of group dynamics. It works with analysis of the structure, nature, functions and leadership of groups in society. A special emphasis will be placed in the study of small groups. A theoretical systems approach is used towards the analysis of relevant aspects of group dynamics. Requisites: SOSC 101-102, PSYC 121-122

PSYC 210**Sexual Psychology****Three Credits**

Theories, concepts and approaches to human sexuality, sexual relations, sexual dysfunctions and education as parts of normal human growth and development. Attention to sexual problems affecting contemporary society, particularly in the adolescent, including illness, sexual dysfunction and so-called sexual abuse and deviation. Requisites: SOSC 101-102, PSYC 121-122

PSYC 225**Social Psychology****Three Credits**

Scientific study of social life from the point of view of the individual. Emphasis on a critical analysis of the relationship between culture and personality. Attention to language, suggestion, imitation, attitudes, stereotypes, propaganda, leadership and conflicts. Requisites: SOSC 101-102, PSYC 121-122

PSYC 226**Developmental Psychology****Three Credits**

Study of human development from conception to death. Particular emphasis is given on interpersonal, cognitive and motivational processes. Learning, cognitive development and psychodynamic theories.

Theoretical and empirical references for the study of human development. Requisites: SOSC 101-102, PSYC 121-122

PSYC 321

Personality Theories

Three Credits

The concept of personality from the perspective of psychoanalytical, social, epistemological, existentialist and trait theories. Analysis of the philosophical basis of these theories, their application and relevance to the Puerto Rican personality. Requisites: SOSC 101-102, PSYC 121-122

PSYC 322

Theories and Techniques in Psychotherapy

Three Credits

Theories of personality and learning for counseling, psychology and psychotherapy. Training and skills of the professional counselor. Behaviorist and humanistic approaches, and laboratory experience. Requisites: SOSC 101-102, PSYC 121-122, PSYC 321

PSYC 323

Introduction to Community Psychology

Three Credits

Historical development and definition of community psychology. Analysis of the theories, concepts and available relevant data related to this discipline. Analysis of selected research. Requisites: SOSC 101-102, PSYC 121-122, PSYC 225

PSYC 330

Measurement of Personality Techniques

Three Credits

Methods and techniques for measuring adjustment, sociability, intelligence, attitudes, and emotional stability. Status of the projective techniques, questionnaires, rating scales, etc. Requisites: SOSC 101-102, PSYC 121-122, PSYC 321

PSYC 343

Learning Theories

Three Credits

Study of the nature and types of variables involved in the learning process. Current issues in learning theory. Requisites: SOSC 101-102, PSYC 121-122

PSYC 350

Principles of Psychopathology

Three Credits

This course provides a critical analysis of what is considered normal and abnormal conduct using cultural and socio-economic elements as criteria to define both terms. Students will analyze the evolution of the concept of "mental illness" together with its epidemiology, etiology, diagnosis, and treatment. The

course also explores different approaches to the treatment of mental illness. These approaches will be discussed considering the behavioral, biophysical, psychodynamic, phenomenological, integrative, and sociocultural points of view. Students will also become familiar with the nosological entities of the DMS IV TR. Requisites: SOSC 101-102, PSYC 121-122

PSYC 353

Psychology and Cinema

Three Credits

This course brings an approach to the origin and historic development of the cinematographic industry. It will present films and fragments of films from different countries around the world. It also presents a critical analysis of films from different theoretical frames in psychology, recognizing cinema as a text of symbolic construction within a particular historical and cultural moment. Finally, it deals with the influence that this artistic piece of work has on a socio-cultural level and the significance, assimilation and repercussion that it has constructed in human beings at individual and collective levels. Requisites: SOSC 101-102, PSYC 121-122 or PSYC 123

PSYC 355

Industrial Psychology

Three Credits

The main elements in the personnel selection process and organizational behavior, with special emphasis on the use of testing. Problems in testing different ethnic groups and nationalities. Study of the literature in these areas. Requisites: SOSC 101-102, PSYC 121-122 or PSYC 123

PSYC 360

Cognitive Psychology

Three Credits

This course provides a thorough analysis of the theories and principles involved in the cognitive process. Besides studying the origin and hypotheses regarding cognitive psychology, the course emphasizes the following brain functions: cognition, sensation, perception, attention and learning. Requisites: SOSC 101-102, PSYC 121-122 or PSYC 123

PSYC 410

Experimental Psychology

Three Credits

Introduction to the scientific study of behavior, with special emphasis on laboratory methods. Design of experiments, collection and analysis of data. Lectures will emphasize the results of scientific studies and their theoretical interpretation, with special attention to recent research findings in the field of psychology. Laboratory included. Requisites: SOSC 101-102, PSYC 121-122, SOSC 301-302 or SOSC 303

PSYC 421**Experimental Social Psychology****Three Credits**

A review of the methodology of social psychology, focusing on theoretical and experimental design in areas such as leadership, attitude, communication and others. Laboratory included. Requisites: PSYC 121-122, SOSC 301-302 or SOSC 303, PSYC 410

PSYC 423**Physiological Psychology****Three Credits**

This course provides an analysis of the relationship between the human body and behavior, emphasizing in the study of the brain, the organization of movement, automatic functions, cortical functions, and the processes related to sensation, perception, motivation, and emotion. Requisites: SOSC 101-102, PSYC 121-122

PSYC 425**Behavior Modification****Three Credits**

Critical analysis and application of the behavior modification principles derived from operant conditioning and social learning theories. Laboratory exercises will be conducted with the purpose of analyzing basic principles of behavior change. Requisites: SOSC 101-102, PSYC 121-122

PSYC 430**Theories and Systems in Psychology****Three Credits**

Comparative study of different theories, methods, concepts and techniques in psychology, with emphasis on the most recent trends and developments. Requisites: SOSC 101-102, PSYC 121-122, PSYC 321

SOCIOLOGY**SOCI 201****Principles of Sociology****Three Credits**

This course explores the origins of sociological thought and practice as a social science. In particular, it provides students with an introductory view of the principle works of key thinkers such as Comte, Marx, Weber etc. with the purpose of not only marking the theoretical and methodological starting points for social scientific inquiry, but also of offering students a conceptual map for them to embark on their own examinations of the social world.

SOCI 202**Principles of Sociology II****Three Credits**

This course focuses on the development of sociological theory and methods from WWII to the present time. Particular attention is given to the stocks of knowledge regarding power, inequality, social mobility and social movements, as well as minority group formation. The course also presents and discusses the sociological takes on modernity and post-modernity that have dominated the field in the alter half of the 20th and into the 21st centuries. Requisites: SOSC 101-102, SOCI 201

SOCI 203**Principles of Sociology/Survey Course****Three Credits**

This course serves as a compendium of SOCI 201-203. It thus offers students a panoramic view of the discipline of sociology, from is origins up to present time. The course presents the systematic study of the nature, development and functions of groups and institutions that affect individuals and their social interactions. Particular attention will be placed on the progression of debates and controversies throughout the history of sociological thought, in regards to both theory and method. Requisites: SOSC 101-102

SOCI 325**Sociology of Deviance****Three Credits**

Study of sociological theories explaining deviant behavior. Special attention will be given to the role of cultural values and norms in the definition of deviant behavior. Pathological aspects such as poverty, family disorganization, overpopulation, prostitution and alcoholism are studied. Requisites: SOSC 101-102, SOCI 201-202 or SOCI 203

SOCI 330**Sociology of Marriage and the Family****Three Credits**

Study of the family from sociological and socio-psychological perspectives. Emphasis is given to the study of marriage and the family as a social institution, as well as to the theories and methodology used in the scientific study of different forms of family. Issues such as the family and social change, sex roles and gender, premarital, marital and extramarital relationships will be studied. Requisites: SOSC 101-102; SOCI 201-202 or SOCI 203

SOCIAL SCIENCES**SOSC 101****Introduction to the Social Sciences I****Six Credits**

Course offers introductory view of general principles and fundamentals of the social sciences, specifically anthropology, sociology and psychology. By way of a guided use of the scientific method, social dynamics

are scrutinized with particular attention to the role and effect of cultural, class, gender, race and ethnic differences as well as that of globalization in the contemporary world.

SOSC 102

Introduction to the Social Sciences II

Six Credits

This is the follow up to the introduction to the social sciences course, focusing on political science, economics and demography. This course analyses the manners in which political systems obtain, maintain and lose power; the shifts and changes in world population; the effects of a globalized economy in Puerto Rico and abroad. Particular attention is placed on important variables such as cultural diversity, social class, gender, race and ethnicity. Requisites: SOSC 101

SOSC 103

Introduction to Social Sciences - Survey Course

Three Credits

Survey course on general principles and foundations for the social science disciplines: anthropology, sociology, psychology, economics and political sciences. Analysis of social problems.

SOSC 225

Contemporary Socio-Political Dilemmas

Three Credits

The course provides an interdisciplinary approach to the study of the relationships among the social, political, economic, and cultural elements of the contemporary world. Situations, problems, and events of the modern world will be used as interpretation models of the concepts and theories discussed in the course. Key issues addressed in the course include: the structure of the state, colonialism, nationalism and post-colonialism, modernity and post-modernity, globalization and the New International Economic Order, globalization and environmental and social deterioration.

Requisite: SOSC 101-102

SOSC 303

Statistical Methods Applied to the Social Sciences (Survey)

Three Credits

The statistical methods course applied to the Social Sciences. The course provides a general vision of descriptive and inferential statistics pertinent to students of Criminal Justice, Psychology and Social Work. Requisites: SOSC 101-102, MATH 101-102 or MATH 111-112

SOSC 320

Foundations, Methods and Techniques in Social Research

Three Credits

Critical analysis of methods, techniques and strategies used in social research. Different theoretical and applied methods and models are examined for further application. Analysis of selected available research. Requisites: SOSC 101-102, MATH 101-102, SOSC 303

SOCIAL WORK

SOWO 260

Introduction to Social Work

Three Credits

The course provides an introduction to social work as a profession. It studies its historical and philosophical development and its relationship with other professions. Examination and analysis of its principles, values, goals and sanctions, as well as the ethical code that governs the practice. The course also provides a general vision of professional functions and roles and professional organizations.

SOWO 265

Social Policy and Social Services

Three Credits

This course studies the history, philosophy and development of social welfare as an essential social institution. It also studies the relationship between social problems and social policy formulated by government services and programs that agencies deliver. Special attention is given to the role of the social worker in the development and implementation of social policy in contemporary Puerto Rico. Requisite: SOWO 260

SOWO 320

Communication Skills and Interview

Three Credits

Study of techniques and basic interpersonal abilities in the process of social work, with special emphasis is in the process of communication and interview skills. Requisites: SOSC 101-102, SOWO 260, SOWO 265

SOWO 350

Social Work with Individual and Family

Three Credits

This course analyzes the family system and its influence over the individual and society. Attention will be given to the social complexity that impact the life cycle of individuals: from childhood to old age. The course includes the diverse modes of intervention at preventive and remedial levels so as to develop the necessary skills to attend the individual and the family as a system. Legislation and the public and private agencies that pertain to the family and its members will be identified. Requisites: SOSC 101-102, SOWO 260, SOWO 265

SOWO 358

Research Methods in Social Work

Three Credits

The purpose of the course is to initiate students in scientific research techniques in social work. Emphasis is given to the development of mastery in compiling and writing the purpose of a study, hypothesis formulation, sampling, data analysis and conclusions. Requisite: SOSC 101-102, SOWO 260, SOWO 265, SOWO 320, SOWO 350, SOSC 303

SOWO 360**Administration and Supervision in Social Welfare Agencies****Three Credits**

This course studies the basic principles, processes, practice and supervision in Social Services Agencies. It underlines the importance of this process in the provision of effective social services as well as the function of the Social Worker. Requisites: SOSC 101-102, SOWO 260, SOWO 265, SOWO 320, SOWO 350

SOWO 370**Human Beings and their Social Environment****Three Credits**

This course promotes the understanding of human phenomena in diverse settings: groups, communities and organizations. Different theoretical approaches are examined: systems theory, ecological, strengths and resilience, functionalist and conflict perspectives. The course also includes ethical elements in human behavior and social settings. Life span aspects, particularly the bio-psycho-social-cultural dimensions of the development, are considered as well. Finally, diversity, ethical and social considerations regarding services and conditions that promote or restrain wellbeing are explored. Requisites: SOSC 101-102, SOWO 260, SOWO 265, SOWO 350

SOWO 373**Cultural Diversity, Special Needs Population and Social Work****Three Credits**

The course examines the origins, dynamics, impact and needs related to Puerto Rican populations with special needs. Emphasis is given to different forms of discrimination and oppression institutionalized in contemporary society such as sexism, racism and aggression, among others. It also examines how these systems of oppression perpetuate in society the ideology of domination and subordination and social work roles and challenges under those circumstances. Cultural diversity is specially addressed and the importance of individual differences as an alternative for personal and professional enrichment. Requisites: SOSC 101-102, SOWO 260, SOWO 265

SOWO 380**The Child, the Adolescent and the Family****Three Credits**

This course familiarizes the student with social problems that impact directly children and adolescents and the present legislation that addresses the child and the family, including the identification of public and private agencies, programs, services and legislation that have been developed to face the social problems of the child and the adolescent in Puerto Rico. Requisites: SOSC 101-102, SOWO 260, SOWO 265, SOWO 350

SOWO 387**Health and Social Work****Three Credits**

This course includes the study of the functions and roles of the social worker in individual and group cases in the medical-social setting. State and federal laws related to medical social services as well as intervention strategies with medical patients will be discussed. Requisites: SOSC 101-102, SOWO 260, SOWO 265

SOWO 390**Family Violence and the Social Work****Three Credits**

This course studies the definitions and the magnitude of family violence in the contemporary world. It emphasizes the history, etiology, myths, and the dynamics in child abuse, incest, violence, fraternal violence, abuse of women and men, abuse and negligence of older people. It also includes the political issues, programs and services and the guides to prevent violence in the home. It also investigates various theories and strategies used frequently in domestic violence studies. Requisites: SOSC 101-102, SOWO 260, SOWO 265, SOWO 350.

SOWO 400**Social Work with Elder Population****Three Credits**

This course offers a bio-psychosocial view of the aging process. It covers the aging process as part of the life cycle that demands a series of adjustments on individuals, family and community levels. It studies the position occupied by the elder person in the contemporary world. Requisites: SOSC 101-102 or SOSC 103, SOWO 260

SOWO 425**Social Work and Gender****Three Credits**

The courses approaches the theme of roles based on gender and the socio-psychological nature of stereotypes surrounding the behavior of men and women. The study and analysis of the effects of stereotypes in the lives of people in the family as well as in the community. Requisites: SOSC 101-102, SOWO 260, SOWO 265.

SOWO 450**Social Work with Groups and Communities****Three Credits**

The course intends to develop the capacity of the student to understand different social roles that exist in groups and the impact they have on the community. It will give special attention to the group leader and the different leadership styles. It will address possible strategies to work and prevent different situations present in small groups and communities as social systems. Requisites: SOSC 101-102, SOWO 260, SOWO 265, SOWO 320, SOWO 350.

SOWO 460**Recording and Analysis of Social Records****Three Credits**

The course emphasizes the writing aspect of social records for individuals, groups and communities. Records used by social services agencies will be analyzed. Ethnic aspects in the management of information obtained from interview and case analysis will be discussed. Requisites: SOSC 101-102, SOWO 260, SOWO 265, SOWO 320, SOWO 350.

SOWO 480-481**Practicum Seminar I and Supervised Practicum in Social Work I****Six Credits**

Required courses of all social work majors to promote the development of the necessary abilities for the practice of social work in organisms of social welfare of several kinds. The courses emphasize the adaptive abilities, as well as the resources and the demands imposed by the surroundings of the persons. The students will have the opportunity to practice with families, groups and individuals. Student must enroll in both courses concurrently after having fulfilled all Requisites. Non-majors may not enroll. The practice seminar (SOWO 480) consists of 45 hours at the University, and the supervised Practice (SOWO 481) requires the student to complete 200 hours at the practice site. Requisites: SOSC 101-102, SOWO 260, SOWO 265, SOWO 320, SOWO 350, SOWO 358, SOWO 370, SOWO 390, SOWO 450, SOWO 460.

SOWO 482-483**Practicum Seminar II and Supervised Practicum in Social Work II****Six Credits**

Both these courses (SOWO 482 and 483) constitute the more advanced level of the social work major to facilitate the integration of knowledge, tasks and practical skills acquired during the process of education. The course will review the concepts of intervention with systems such as families, groups, communities and organizations, giving special attention to strategies and models of social work intervention and professional ethics. Student must enroll in both courses concurrently after having fulfilled all Requisites. Non-majors may not enroll. The practice seminar (SOWO 482) consists of 45 hours at the University and the supervised Practice (SOWO 483) requires the student to complete 200 hours at the practice site. Requisites: SOSC 101-102, SOWO 260, SOWO 265, SOWO 320, SOWO 350, SOWO 358, SOWO 370, SOWO 373, SOWO 390, SOWO 450, SOWO 460, SOWO 480-481.

DEPARTMENT OF HUMANITIES

The Humanities Department offers courses in ethics, history, languages (Spanish, English, Portuguese and French), literature, theatre, music, fine arts, and interdisciplinary studies. It provides students with the opportunity to broaden their knowledge in these subjects and develop the attitudes and skills which will allow them to become informed citizens of the world.

OBJECTIVES

- Help students integrate humanistic knowledge into their selected fields of study and connect both abstract and applied knowledge to the practical demands of contemporary life.
- Broaden the students' cultural horizons through exposure to the works of great artists and philosophers and to stimulate the students' sensitivity through the appreciation and study of classical and contemporary music, theatre, film, and art.
- Promote the understanding and appreciation of the values of Puerto Rican culture through the study of its history and its cultural and artistic expressions, as well as an understanding and appreciation of other world cultures.
- Develop the students' communication skills in Spanish and English and stimulate the development of the necessary skills for creative, analytical, and critical thinking.

LANGUAGE LABORATORY AND WRITING CENTER

The Humanities Department has a modern language laboratory located at the Dr. Arturo Morales Carrión Annex Building. All Spanish and English 101 and 102 students (basic level) are required to take one laboratory session per week. The language laboratory

provides students with the opportunity to listen, understand, speak, read and write in the target language. The laboratory is also set up for multiple/multi-media activities.

The Writing Center provides students with workshops, tutoring and other activities geared towards helping them improve their written and oral communication skills.

FACULTY

ALMODÓVAR RONDA, RAMÓN

Professor

MA, Universidad Central de Barcelona
BA, University of Puerto Rico

APONTE CORREA, MARIA D.

Professor

PhD, Universidad de Granada, España
MA, University of Puerto Rico
BA, University of Puerto Rico

BALDONI ROSARIO, ILEANA

Instructor

MA, New York University
BA, University of Puerto Rico

BONILLA MANGUAL, GLADYS

Professor

EdD, Inter-American University
MEd, University of Puerto Rico
BA, University of Puerto Rico

CABANILLAS HERNANDEZ, SONIA

Associate Professor

MA, University of Wisconsin-Madison
BBA, University of Puerto Rico

CASABLANCA TORRES, MERCEDES

Professor

PhD, New York University
MEd, University of Puerto Rico
BA, University of Puerto Rico

CRUZ SANTOS, MARTIN

Assistant Professor
PhD, Interamerican University of Puerto Rico
MA, Centro de Estudios de los Dominicos del Caribe
BA, Catholic University of Puerto Rico

DEL VALLE RODRIGUEZ, MARITZA

Assistant Professor
PhD, Universidad de Granada, España
MA, New York University
BA, University of Puerto Rico

DOMENECH CRUZ, ROXANNA

Assistant Professor
PhD, Centro de Estudios Avanzados de Puerto Rico y el Caribe
MA, University of Massachusetts at Amherst
BA, Smith College

FALCON JOVER, MERCEDES

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MA, University of Puerto Rico
BA, University of Puerto Rico

GARCÍA ARRIAGA, NANCY

Instructor & Writing Center Coordinator
MA, Inter-American University
BAEd, Inter-American University

JUARBE DE CEMBALEST, CARMEN

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BA, University of Puerto Rico

OLIVER, EVANGELINE

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BA, University of Puerto Rico

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PRIETO MARTINEZ, ADANID

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BA, University of Sacred Heart

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BA, University of Puerto Rico

SERRA SOSTRE, ANTONIO

Assistant Professor
PhD, Pennsylvania State University
MEd, Pennsylvania State University
BA, Bayamón Central University

RUIZ RIVERA, MARIA I.

Assistant Professor
MA, University of Puerto Rico
BA, Catholic University

VIERA VARGAS, HUGO R.

Associate Professor
Post Graduate Degreee, Facultad Latinoamericana de Ciencias Sociales, Argentina
PhD, Indiana University, Bloomington, Indiana
MA, Indiana University, Bloomington, Indiana
BA, University of Puerto Rico

VILCHES NORAT, MARIA

Professor

PhD, Universidad de Granada, España

MA, Boston University

BA, Boston University

VILLEGAS COBIÁN, GREGORIO

Assistant Professor

PhD, Universidad de Granada, España

MA, University of Puerto Rico

BA, University of Puerto Rico

COURSES DESCRIPTION

GENERAL EDUCATION COURSES DESCRIPTION

ART 101

Plastic Arts Appreciation

Three Credits

Introduces general principles of art and its meaning. Familiarizes the student with different techniques used in the plastic arts. Aims at stimulating artistic awareness. Requisites: HUMA 201-202

ENGL 101-102

Introductory English Language Course – Basic Level

Six Credits

Emphasizes the development of basic written communication and reading skills. Grammar instruction is provided for students who need to improve their proficiency in English.

ENGL 103-104

Introductory English Language Course - Intermediate Level

Six Credits

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

ENGL 105-106

Introductory English Language Course - Advanced Level

Six Credits

This course includes a review of grammar emphasizing written communication through the study of the content and form of the essay.

ENGL 201-202 Second-Year English - Basic Level –Introduction to Literary Genres II

Six Credits

Basic introduction to the study of literary genres. Aims to develop an appreciation of the short story and the novel, the essay, poetry and drama. Requisites: ENGL 101-102

ENGL 205-206

Second-Year English – Advanced Level - Introduction to Literature

Six Credits

An introduction to the study of English literary genres. Aims to develop an appreciation of the literary genres through the analysis of the basic elements of each genre. Required course for English majors. Requisites: ENGL 103-104 or ENGL 105-106

ENGL 207**Basic Level: Reading and Writing****Three Credits**

English 207 is designed for those students who have completed the first-year basic English courses. This course will continue to emphasize and review the fundamental reading and writing skills needed to communicate effectively in English. Required course of all students in the Bachelor of Arts Degree in Education. Requisites: ENGL 101-102 or ENGL 104-104 or ENGL 105-106

ENGL 212**Second Year Business English – Basic Level****Six Credits**

Emphasizes vocabulary development and grammar structures for effective oral and written business communication. Required course for Business Administration students. Requisites: ENGL 101-102 or ENGL 103-104 or ENGL 105-106

ENGL 213-214**Written and Oral Communication****Six Credits**

A required course for English majors. It consists of an intensive study of the fundamentals of expository writing and aims at the development of clear thinking and planning skills required in the writing process. The first semester emphasizes the logic and planning skills needed to write an essay. The second semester stresses the writing of essays using the traditional types of development. Basic oral skills will be emphasized throughout the courses. Requisites: ENGL 245, ENGL 305

ENGL 215-216**Second-Year Business English – Advanced Level****Six Credits**

Advanced Business Course which aims to develop vocabulary and grammar structures. Effective oral and written business communication is emphasized.
Requisites: ENGL 103-104, or ENGL 105-106

ENGL 231**Research and Report Writing****Three Credits**

This is an advanced course in expository writing. It provides students with tools and techniques to conduct scientific educational research. It also acquaints students with the available library resources in education. Requisites: ENGL 103-104, or ENGL 105-106, ENGL 213-214

ENGL 245**English Grammar I****Three Credits**

A required course for English majors. It is the first part of a two-semester course and consists of a grammatical description of the basic parts of speech and their usage. Its purpose is to develop a

conscious knowledge of the rules of the grammar of English thus enabling students to use the language effectively. Requisites: ENGL 101-102, ENGL 103-104, or ENGL 105-106

ENGL 303

Introduction to English Phonetics

Three Credits

An introductory study of the phonological system of American English. Includes intensive practice in the phonetic transcriptions of English sounds. Required course for English majors.

Requisites: ENGL 101-102, ENGL 103-104, or ENGL 105-106

ENGL 305

English Grammar II – Advanced Level

Three Credits

Emphasizes the usage of simple and complex syntactical structures of American English. Required course for English majors. Requisite: ENGL 101-102, ENGL 103-104, or ENGL 105-106 and ENGL 245

ENGL 350

Conversational English

Three Credits

This course provides practice for the development of oral communication skills to be used in personal and professional settings. Requisites: ENGL 101-102, ENGL 103-104, or ENGL 105-106 and a 200 level English course.

ENGL 351

Literature for Adolescents

Three Credits

This course familiarizes students with the appropriate techniques for teaching literature to adolescents. It includes different approaches to teach poems, drama, short stories, novels and plays. Requisite: ENGL 101-102, ENGL 103-104, or ENGL 105-106 and a 200 level English course.

ENGL 352

Children's Literature

Three Credits

This is a required course for English majors in elementary education. It provides for the study of different forms of children's literature including an overview of its development and the analysis of chosen readings, which are representative of each genre. Literary evaluation skills are practiced while students are introduced to classic and contemporary books.

Requisite: ENGL 101-102, ENGL 103-104, or ENGL 105-106 and a 200 level English course.

ENGL 361**Technical Writing****Three Credits**

This course is a guide for the development of writing skills for students who need to function and succeed in their everyday lives. Provides the simplest and yet the most essential skills in technical written communication. Requisite: ENGL 101-102, ENGL 103-104, or ENGL 105-106 and a 200 level English course and ENGL 350

ENGL 371**Introduction to Linguistics****Three Credits**

An introduction to the scientific study of language providing an overview of the historical development of English as well as the processes followed by linguists in their specialized field. Required of English majors. Requisites: ENGL 303, ENGL305

ENGL 401**Contrastive Analysis of English and Spanish****Three Credits**

Advanced course intended for English majors with basic knowledge and skills of the grammar, syntax, and phonology of English and Spanish. It consists of an overview of the historical events which have affected the development and expansion of English and Spanish, the causes and effects of language interaction between the two, and a comparative analysis of the linguistic structures of both languages. Requisites: ENGL 245, ENGL 305 and ENGL 371

FREN 101-102**Introductory French****Six Credits**

Conversational basic French with emphasis on pronunciation and grammar. Oral and written exercises based on readings.

HIST 101**Introduction to the Study of History****Three Credits**

The course is an introduction to the study of history. It promotes the understanding, the meaning, and the importance of the study history. Students explore the many lessons we can learn from history.

HIST 203-204**Ancient and Medieval History****Six Credits**

This course studies ancient history: important events, ideas and contributions to the modern world. Brief examination of pre-history, extensive study of ancient civilizations of Far and Middle East, Africa and Southern Europe. It also studies the Medieval world and its institutions, feudalism, and the church. Two semesters, three hours per week.

HIST 221**Renaissance, the Reformation and Rise of the State****Three Credits**

This course studies the Renaissance and the religious crisis of the 16th century. It provides a broad overview of Spanish, French, English, German and Russian history in the 16th, 17th and 18th centuries.

Requisites: HUMA 101-102

HIST 231**European History - 19th Century****Three Credits**

This course examines the development of liberalism, nationalism and industrialization in conflict with the authoritarian forces still prevalent in Europe. National development and, the international rivalry which led to World War I are explored.

HIST 232**Contemporary World Problems****Three Credits**

This course studies of the primary conflicts and tensions of the contemporary world. Examines World War I and World War II, the Korean War, the Vietnam War, the conflict between Israel and the Arab countries, NATO and the Warsaw Pact, the Cuban Revolution, and Latin American revolutionary movements. Examines the Russian Revolution of 1917 and the Communist Revolution in China of 1911 and 1949. Requisites: HUMA 101-102

HIST 251-252**History of Puerto Rico****Six Credits**

This course studies Puerto Rico's history from Pre-Columbian times to the XXI Century. It emphasizes on the development of Puerto Rico's national identity up to the end of the XIX Century. The second parts consist of the study of Puerto Rico's history from the end of the XIX Century until the beginnings of the XXI. Requisites: HUMA 101-102 or HUMA 105-106

HIST 253**History of Puerto Rico – Compendium****Three Credits**

This compendium focuses on the study analysis of Puerto Rico's historical development from its beginnings to the present. Emphasis is given to the social, political, economic, and cultural development of the island.

HIST 261-262**Latin American History I & II****Six Credits**

This course studies the historic evolution of Latin American countries from pre-Columbian cultures to the present. Requisites: HUMA 101-102

HIST 271-272**History of the United States of America****Six Credits**

This course studies the political, social, economic, and cultural development of the United States from the colonial period to the present. Requisites: HUMA 101-102

HIST 273**History of the United States – Compendium****Three Credits**

This course studies the most important social, cultural, political, and economic events in the history of the United States, from the colonial period to the present.

HIST 305**Caribbean History****Three Credits**

This course studies of the Caribbean from the pre-Columbian era to the 20th century. It explores the political, economic, social and cultural development of this area. Requisites: HUMA 101-102

HIST 320**African History****Three Credits**

This course studies a broad view of the history of African countries. It studies of the political, economic, social and cultural development of the African continent from the Ancient World to the present. Requisites: HUMA 101-102

HUMA 101-102**World Cultures****Six Credits**

This course is a critical study of human cultural evolution from the origin of the cities and the urban life, until modern society. Special attention is given to critical cultural events. The course promotes understanding of the moral, social and cultural aspects of Puerto Rican society in the global context.

HUMA 105-106**Interdisciplinary Approach to the Study of the Humanities****Six Credits**

Thematic mini-courses which study human values, artistic and literary expression, religion, society, culture, and the Puerto Rican reality.

HUMA 201-202**Study of Western Civilization****Six Credits**

This course studies western civilization from the Renaissance to the present. It consists of thorough analysis of historical events and artistic works that are considered transcendental to modern society.

Requisites: HUMA 101-102 or HUMA 105-106

HUMA 203**Introduction to the Study of World Cultures - Compendium****Three Credits**

This course is a compendium of Humanities 101-102 for nursing students. Emphasis is given to the major accomplishments of World Cultures.

HUMA 204**Cultural Elements of Puerto Rico****Three Credits**

This course studies the ethnic origins of Puerto Rican culture. It includes the analysis of historical and geographical factors which have influenced the development of Puerto Rican culture as seen in politics, religion, folklore, and the arts. It examines the current Puerto Rican reality. Requisites: HUMA 101-102, or HUMA 105-106

HUMA 205**Puerto Ricans in the United States – A Split Culture?****Three Credits**

This course is an analysis of the causes of Puerto Ricans migration, particularly to the United States, during the XX and XXI centuries. It relates the migratory process to political and economic changes on the Island and emphasizes the cultural contribution of Puerto Ricans in the United States. Requisites: HUMA 101-102 or HUMA 105-106

HUMA 206**Puerto Rico and the Caribbean; African Heritage****Three Credits**

This courses studies and analyses the historical and cultural development of Puerto Rico and the Caribbean emphasizing the African heritage links. Requisites: HUMA 101-102 or HUMA 105-106

HUMA 211**Humanistic Studies****Three Credits**

This Humanistic Studies course exposes students to a comprehensive humanistic experience in its most diverse manifestations by studying contemporary philosophical and cultural issues. It promotes critical thinking about human beings and their historical circumstances. This course provides students with experiences and knowledge to enrich their values, and their moral, civic and professional attitudes.

MUSI 201**Music and Puerto Rican Society****Three Credits**

This course is a study of music history and an introduction to music appreciation. It provides a chronological analysis of the role of music in Puerto Rican society.

PHIL 103**Principles of Reasoning****Three Credits**

This course presents methods and principles of knowledge and reasoning. It introduces fundamentals of modern logic and its application. Emphasis is given to the development of analytical skills useful for effective problem solving. Requisites: HUMA 101-102

PHIL 201**Ethics****Three Credits**

The course promotes a philosophical reflection on the moral conduct and the principles on which it is based. It analyzes morality and its cultural implications (economic, political, social, etc.). It also includes the study of situations and now seeks moral development of the ability to make ethical judgments critical in this regard. It promotes knowledge and experience of values and ethical citizens and professionals. Study the thought of philosopher's representative of the mainstream ethical from antiquity to the present. Requisites: HUMA 101-102

PHIL 204**Philosophy and Religion****Three Credits**

This course presents religion as an aspect of philosophy. It examines several concepts commonly related to philosophy and religion such as divinity, soul, death and morality. It provides a panoramic view of the most important world religions. Requisites: HUMA 101-102

PHIL 205**Philosophical Introduction to Bioethics****Three Credits**

This course is intended for the entire university community, especially for science and technology, environmental education and health sciences majors. It promotes a critical evaluation and reflection regarding problems that arise in the fields of ecology, medical ethics, public health and scientific responsibility. It includes units in the study of ethics and philosophical aspects of life in general in its broadest sense.

PHIL 206**Philosophy of Sciences****Three Credits**

This course introduces basic concepts of philosophy and the sciences. It presents points of contingency in both disciplines and examines different branches of the natural sciences such as geometry, mathematics, biology and physics. The course emphasizes the implications and consequences of scientific inquiry. Requisites: HUMA 101-102

PORT 101**Basic Portuguese****Three Credits**

This course is an introduction to Portuguese. It emphasizes the study of Portuguese grammar and provides intense practice on Portuguese oral communication, reading, and writing skills. It also promotes the linguistic and cultural context to learn the target language.

SPAN 101-102**Introductory Spanish Language - Course-Basic Level****Six Credits**

The history and evolution of the Spanish language. Development of reading and writing skills. Vocabulary enrichment. Analysis of basic Spanish grammatical structures, supplementary readings.

SPAN 103-104**Introductory Spanish Language - Course –Intermediate Level****Six Credits**

Introduction to linguistics. The historical evolution of the Spanish language in Puerto Rico. Grammar review, vocabulary enrichment and written communication. Latin American Literature.

SPAN 105-106**Introductory Spanish Language - Course –Advanced Level****Six Credits**

Written communication. Readings of masterpieces of Hispanic literature. Emphasis on techniques of literary criticism and research.

SPAN 107**Introductory Spanish Language - Course –Bilingual Students****Three Credits**

A study of the phenomena of languages in interaction, specifically English and Spanish. Develops skills of reading, writing and grammatical analysis in Spanish from the bilingual point of view.

SPAN 201-202**Business Spanish****Six Credits**

Introduction to written business communication. Logical and psychological principles involved in commercial correspondence. Requisites: SPAN 101-102, or SPAN 103-104, or SPAN 105-106.

SPAN 211**Appreciation of Puerto Rican Literature****Three Credits**

A survey of outstanding themes and techniques which describe Puerto Rican literature. Study of the evolution of literary movements. Emphasis on oral and written reports from readings. Requisites: SPAN 101-102 or SPAN 103-104 or SPAN 105-106

SPAN 213-214**Literary Genres****Six Credits**

Analysis of literary genres through the study of representative works in the Spanish language. Requisites: SPAN 101-102 or SPAN 103-104 or SPAN 105-106

SPAN 215**Written Composition****Three Credits**

Develops proficiency in the practical use of written language; current idiomatic Spanish. Provides practice in the more complex problems of sentence structure and usage and in theme writing and analysis. Requisites: SPAN 101-102 or SPAN 103-104 or SPAN 105-106

SPAN 216**Oral and Written Spanish****Three Credits**

Span 215-218 compendium for nursing students. Develops skills through oral and written reports. Requisites: SPAN 101-102, or SPAN 103-104, or SPAN 105-106.

SPAN 218**Oral Communication****Three Credits**

Develops skills needed for public speaking. Emphasizes correctness, clarity, organization and delivery behaviors in accordance with subject matter and audience. Rhetorical skills are developed through instruction and practice. Requisites: SPAN 101-102, or SPAN 103-104, or SPAN 105-106

SPAN 221-222**Spanish Literature****Six Credits**

Introduction to the history of Spanish literature. Offers a panoramic view of the history of Spanish literature from its origins to the present. Familiarizes the student with the cultural movements and representative works of each period. Requisites: SPAN 101-102, or SPAN 103-104, or SPAN 105-106

SPAN 235**Linguistics****Three Credits**

Examines the development of the sciences of linguistics through the twentieth century. Emphasizes the analysis of the Spanish language and its teaching at the secondary level. Requisites: SPAN 101-102, or SPAN 103-104, or SPAN 105-106

SPAN 265**Advanced Grammar****Three Credits**

Examines the nature of the Spanish language, its components and structure: phonemics, morphology and syntax. Emphasizes types of linguistic change: phonetic, phonemic, analogic and semantic. Aims at improving written and oral communication. Requisite: SPAN 215

SPAN 451-452**Puerto Rican Literature****Six Credits**

A study of Puerto Rican literature from its beginnings to the twentieth century. Representative works from each period are analyzed. Requisites: SPAN 101-102, or SPAN 103-104, or SPAN 105-106

SPAN 461-462**Spanish American Literature****Six Credits**

A study of representative works of Spanish American literature from its beginnings to the 20th century. The work of representative writers from each period is examined. Requisites: SPAN 101-102, or SPAN 103-104, or SPAN 105-106

THEA 101**Theater Appreciation I****Three Credits**

The course familiarizes the student with the basic elements of a theatrical production. It also provides the student with the opportunity to acquire the knowledge of some theatrical techniques in practice. The emphasis of the course is basic acting and character development.

THEA 102**Theater Appreciation II****Three Credits**

This course is the continuation of THEA 101, in which the object of didactic emphasis is acting technique. The second part of the course familiarizes the student with the technical elements of a theatrical production. It also provides the student with the opportunity to acquire the knowledge of other theatrical techniques in practice. The student will learn about stylized acting and character development, along with the study of literary texts that belong to diverse literary periods. Requisites: THEA 101

DEPARTMENT OF COMMUNICATIONS

The Department of Communications prepares students to become professionals with the appropriate skills to face the challenges of a dynamic and changeable discipline. Our programs focus learning on technological knowledge, as well as critical thinking, social responsibility and creativity. We believe that a communicator of excellence must have a multidisciplinary vision, civic commitment and the necessary sensibility to be an agent of social change. The academic program offers a Bachelor's degree in Arts in Communications with one of three concentrations: **Digital Production**, **Media Management** and **Public Relations**.

All the programs are complemented by the Integrated Laboratory of Communications. This creative workshop has multiple technological resources to develop the capacities of the students and to offer a practical experience that strengthens and nourishes their academic performance.

The Laboratory counts with:

- Cinema and digital video production studio
- Radio and digital audio studio
- 4 digital video editing suites
- Oratory and presentations amphitheater used for:
 - Video conferences
 - Courses
 - General and audiovisual presentations
- Computers Lab
 - Internet
 - Graphic design
 - Writing

OBJECTIVES

- Educate Communications professionals versed in the most current theories and uses of technology, and with the conceptual criteria needed to become leaders in the field.
- Provide relevant academic and extra-curricular activities to enrich and complement the learning experience.
- Promote and support student research and practical experiences.
- Encourage local and international exchanges, alliances and collaborations.

ADMISSION REQUIREMENTS

To be admitted to the Communications Department, the candidates must fulfill all of UMET's general admission requirements and attain a cumulative high school grade-point average (GPA) of 2.50 or more. The applicant also has to obtain an average of 500 points or more in the Spanish section and 450 points or more in the English section of the College Entrance Examination Board (CEEB). As part of the Admission Requirements of the Communications Department, all students must participate of an interview with the Department's Admission Board.

Students with special needs have a number of available resources for the development of their academic skills, which include computer aids, academic counselors, study areas, tutoring, and a learning center with state-of-the art computer software and equipment.

FACULTY

BARRIOS LOPEZ, ERIC JOSE

Associate Professor

MA, New York University

BA, University of Puerto Rico

MORALES MOLL, RAFAEL

Assistant Professor

MA, Sacred Heart University

BA, Sacred Heart University

NIEVES MORENO, ALFREDO

Assistant Professor

PhD, Universidad de Nebrija, España

MA, Sacred Heart University

Post Graduate Degree, Universidad

Autónoma Metropolitana

BA, University of Puerto Rico

BACHELOR OF ARTS IN COMMUNICATIONS MAJOR IN DIGITAL PRODUCTION

123 Credits	Credits
General Education Courses	60
Core Courses	42
Specialization Courses	21

General Education Courses		60
SPAN 103-104	Introductory Spanish Language Course - Intermediate Level	6
ENGL 103-104	Introductory English Language Course - Intermediate Level	6
ENGL 451-452	Immersion English Language Course – Advanced Level	6
SCIE 111-112	Integrated Sciences I,II	6
HUMA 101-102	World Cultures	6
SOSC 101-102	Introduction to Social Sciences I,II	6
MATH 101-102	Mathematical Reasoning I,II	6
HIST 251-252	History of Puerto Rico	6
PHIL 103	Principles of Reasoning	3
SPAN 211	Appreciation of Puerto Rican Literature	3
Electives	Student can choose from any school or BA program of UMET	6

Core Courses		42
COMU 101-102	Fundamentals of Communications I,II	6
COMU 105 -106	Introduction to Computers in Communications I,II (graphic design)	6
COMU 210	Introduction to Management in Mass Media	3
COMU 200	Basic Principles of Writing for the Media	3
COMU 250	Cinema History and Appreciation	3
COMU 300	Research in Communications I	3
COMU 305	Effective Presentations Techniques	3
COMU 306	Script Writing	3
COMU 400	Communications Seminar	3
COMU 402	Communications: Legal and Ethical Aspects	3
COMU 403	Translation	3
SPAN 216	Written and Spoken English	3

Specialization Courses		21
COMU 199	Introduction to Mass Media Production	3
COMU 201	Video Production Level I	3
COMU 202	Audio Production Level I	3
COMU 301	Video Production Level II	3
COMU 302	Audio Production Level II	3
COMU 401	Professional Practice Workshop (internship)	3
COMU 404	Communications Final Project	3

BACHELOR OF ARTS IN COMMUNICATIONS MAJOR IN MEDIA MANAGEMENT

123 Credits	Credits
General Education Courses	60
Core Courses	42
Specialization Courses	21

General Education Courses		60
SPAN 103-104	Introductory Spanish Language Course - Intermediate Level	6
ENGL 103-104	Introductory English Language Course - Intermediate Level	6
ENGL 451-452	Immersion English Language Course – Advanced Level	6
SCIE 111-112	Integrated Sciences I,II	6
HUMA 101-102	World Cultures	6
SOSC 101-102	Introduction to Social Sciences I,II	6
MATH 101-102	Mathematical Reasoning I,II	6
HIST 251-252	History of Puerto Rico	6
PHIL 103	Principles of Reasoning	3
SPAN 211	Appreciation of Puerto Rican Literature	3
Electives	Student can choose from any school or BA program of UMET	6

Core Courses		42
COMU 101-102	Fundamentals of Communications I,II	6
COMU 105 -106	Introduction to Computers in Communications I,II (graphic design)	6
COMU 210	Introduction to Management in Mass Media	3
COMU 200	Basic Principles of Writing for the Media	3
COMU 250	Cinema History and Appreciation	3
COMU 300	Research in Communications I	3
COMU 305	Effective Presentations Techniques	3
COMU 306	Script Writing	3
COMU 400	Communications Seminar	3
COMU 402	Communications: Legal and Ethical Aspects	3
COMU 403	Translation	3
SPAN 216	Oral and Written Spanish	3

Specialization Courses		21
MARK 133	Principles of Marketing	3
MARK 206	Consumer Behavior	3
COMU 308	Mass Media Analysis and Management	3
COMU 309	Entrepreneurship Development in the Mass Media	3
COMU 410	Strategies and Marketing of Mass Media Companies	3
COMU 401	Professional Practice Workshop (internship)	3
COMU 404	Communications Final Project	3

BACHELOR OF ARTS IN COMMUNICATIONS MAJOR IN PUBLIC RELATIONS

123 Credits	Credits
General Education Courses	60
Core Courses	42
Specialization Courses	21

General Education Courses		60
SPAN 103-104	Introductory Spanish Language Course - Intermediate Level	6
ENGL 103-104	Introductory English Language Course - Intermediate Level	6
ENGL 451-452	Immersion English Language Course – Advanced Level	6
SCIE 111-112	Integrated Sciences I,II	6
HUMA 101-102	World Cultures	6
SOSC 101-102	Introduction to Social Sciences I,II	6
MATH 101-102	Mathematical Reasoning I,II	6
HIST 251-252	History of Puerto Rico	6
PHIL 103	Principles of Reasoning	3
SPAN 211	Appreciation of Puerto Rican Literature	3
Electives	Student can choose from any school or BA program of UMET	6

Core Courses		42
COMU 101-102	Fundamentals of Communications I, II	6
COMU 105 -106	Introduction to Computers in Communications I,II (graphic design)	6
COMU 210	Introduction to Management in Mass Media	3
COMU 200	Basic Principles of Writing for the Media	3
COMU 250	Cinema History and Appreciation	3
COMU 300	Research in Communications I	3
COMU 305	Effective Presentations Techniques	3
COMU 306	Script Writing	3
COMU 400	Research in Communications II	3
COMU 402	Communications: Legal and Ethical Aspects	3
COMU 403	Translation	3
SPAN 216	Written and Spoken English	3

Specialization Courses		21
MARK 133	Principles of Marketing	3
COMU 205	Introduction to Public Relations	3
COMU 303	Public Relations in the different Mass Media: Case studies	3
COMU 304	Public Relations Campaigns	3
MARK 251	Advertising and Promotions	3
COMU 401	Professional Practice Workshop (internship)	3
COMU 404	Communications Final Project	3

COURSES DESCRIPTION

COMU 101

Fundamentals of Communications I

Three Credits

General introduction to the world of communications that provides an overview of historical and cultural origins, development and social impact of various mass media. The course recognizes the role and importance of media in contemporary societies and explains its value as reproducers and producers of culture to promote critical reading and understanding of media content.

COMU 102

Fundamentals of Communications II

Three Credits

General introduction to the theories of communication. This course presents a historical overview of the basic concepts and major theories of communications. It also examines the development and impact of the media to present. The components of the communication system, from the different approaches to the diverse theoretical perspectives that have emerged in the development of communication studies as a discipline, are emphasized as well. The course also pays particular attention to theoretical contributions when working with different media narratives. Requisite: COMU 101

COMU 105

Introduction to Computers in Communications I

Three Credits

Historical development of computer systems. This course presents the importance of the communication principles applied to the use of computerized tools. Introduction to basic principles for the use and operation of computers for writing and production in the field of communications, including the physical components of operating systems. The necessary mechanisms for the development of the information skills that are involved in data processing and storage on the computer, as well as the use of programs related to the field of telecommunications, graphic design and writing for the media are also studied. The course also engages students with the critical analysis of digital communication and the ethical use of information through the Internet.

COMU 106

Introduction to Computers in Communications II: Graphic Design

Three Credits

Introduction to the design, visualization and production of graphic materials using the computer as the main tool. This course explains the basic concepts of typography and graphic design and presentations. The fundamentals and principal skills in the use of programmed digital design, as well as other uses in the production of logos, corporate images, digital design and other electronic and printed communications, are also discussed. Students will produce a portfolio of creative projects assigned throughout the course. Requisites: COMU 101, 105

COMU 199**Introduction to Mass Media Production****Three Credits**

This introductory course is a requirement to the production courses of the Digital Production Program. Students will be exposed to the basic production instruments used in the preparation, construction and presentation of audiovisual materials, including production personnel, the three stages of production, audio and video recording and the equipment employed for reproduction. Requisites: COMU 101 - 102

COMU 200**Basic Principals of Writing for the Media****Three Credits**

Studies the general aspects of writing for print media and elaborates on today's writing theories and techniques. Students will conduct special projects to put into practice the different kinds of writing styles used in journalism. This course will develop, specifically, the research, writing, reviewing and editing skills needed for print media. Requisites: SPAN 103- 104 o SPAN 105-106, SPAN 216, COMU 101, 102 and 105

COMU 201**Video Production - Level I****Three Credits**

Application of the production steps for the development of digital video projects. This course teaches concepts like visual composition, focal length and image exposure, among others. It also exposes the students to the use of cameras, microphones, audio consoles and production switchers. Requisite: COMU 101-102, COMU 199, COMU 200

COMU 202**Audio Production- Level I****Three Credits**

An introduction to sound production and editing, this course also describes the characteristics of sound and how the human brain understands it. It emphasizes in the difference between analog and digital sound, as well as in the use of the basic equipment needed for audio recordings and productions such as microphones, cables, connectors, mixing consoles, speaker systems, audio processors and the production studio, among others. Students will develop a basic proposal for a radio program and learn about different kinds of signals used in radio transmissions.

Requisites: COMU 101-102, COMU 199, MATH 101-102

COMU 205**Introduction to Public Relations****Three Credits**

This course presents the basic and most recent theories and practices in the public relations field. It also introduces the definition of the profession, gives an overview of its history and evolution and presents and discusses the existing codes of ethics and working tools inherent to this field of communication.

Requisites: COMU 101-102

COMU 210**Introduction to Management in Mass Media****Three Credits**

This course will provide students of the Media Management program the basic skills in managing a company in the communications field. It will also discuss the framework of the historical and theoretical development of media industries. A snapshot of the elements and features which distinguish the communications companies will be presented as well. As a complement, the course includes an overview and introduction to the most important aspects of the legal aspects governing the management processes in business communications. Requisites: COMU 101 -102

COMU 250**Cinema History and Appreciation****Three Credits**

This course provides an overview of the history of cinema, from its beginnings to the present. Through the appreciation of films that represent the major stages in the development of cinema worldwide, the student will also study the elements of this art in different eras. Requisites: COMU 101-102

COMU 300**Research in Communications I****Three Credits**

Introduction to the theoretical grounding of the research processes applied to the media. The student will design a research proposal, using the elements of scientific method, to study the different areas involved in the communication processes. Special attention is paid to the ethical considerations that the researcher must keep in mind in the development of research proposals.

Requisites: COMU 101 - 102, 210 and MATH 101 - 102

COMU 301**Video Production - Level II****Three Credits**

In this course, students will learn about the theory and practice of indoor and outdoor video production and direction. They will also experience all the stages involved in television production such as pre-production, production, post-production, visualization, administration of production personnel, proposals writing and non-linear editing, among others.

Requisite: COMU 101-102, 105-106, 199 and 201

COMU 302**Audio Production - Level II****Three Credits**

This course discusses the theory and practice of audio production and direction. Its content includes the study of the different stages of audio production and the computer programs available for sound editing. The students will complete practical exercises in the studio. Requisite: COMU 101-102, COMU 105-106, COMU 199, COMU 200, 202 y 301

COMU 303**Public Relations in the Different Mass Media: Case Studies****Three Credits**

Introduction to the peculiarities of the practice of a professional relations representative. This course teaches the student the process of writing and production of specific documents for public relations projects. It gives special attention to the particular tactics used in this field to solve communication problems or crises, to coordinate events and to develop sales and promotions strategies, among other things. The course includes simulations, case studies discussions and analysis of real examples to promote a better management and understanding of the various situations that may occur in the work setting. Requisites: COMU 101- 102, 105, 106, 205 and 210

COMU 304**Public Relations Campaigns****Three Credits**

Development of Public Relations campaigns. Students will have the experience of working in the research, planning, strategy development and evaluation processes to complete a public relations campaign. The course includes analysis of the types of campaigns that can be developed for conflict resolution or presentation of products, and examines, from a critical perspective, current trends in the practice of this profession. Requisites: COMU 101, 102, 105, 106, 205, 210 y 303

COMU 305**Effective Presentations Techniques****Three Credits**

In this course, students will learn the basic aspects of the communication process, how to communicate properly in public and understand the audiences, and to incorporate technological devices into spoken presentations. This course also focuses on the conceptual production of messages, information management and planning. Requisites: COMU 101-102, COMU 105

COMU 306**Script Writing****Three Credits**

This course presents a study of the different writing formats used in the communications filed. Its content includes the basic elements and structures used to develop scripts for movies, television and radio programs, among others, as well as the limits of each format. Requisite: COMU 101-102, 105, 199, 200, 205 and SPAN 216

COMU 308**Mass Media Analysis and Management****Three Credits**

The course will apply advanced management concepts to the administration of media organizations. It evaluates different organizational models under the light of the particular characteristics of media, and studies the development of its related industries in our cultural context. The characteristics and skills

needed by a media manager, such as leadership, decision-making processes, systems of authority, conflict and the importance of teamwork, will be also discussed. In addition, the course includes the study of the basic aspects to consider when preparing business plans and media companies' proposals, as well as the most effective ways to present these kinds of documents. Requisites: COMU 101-102, 105-106 and 210

COMU 309

Entrepreneurship Development in the Mass Media

Three Credits

The course focuses on the implementation of the acquired business skills to create and effectively develop a communication company. It emphasizes the application of the theory for the analysis of various companies, the structure of media markets, the legal and business considerations of implementing a business plan and the critical analysis of the economic and social performance of a company. The analysis of media audiences and the critical examination of corporate profiles from media companies are also part of the course. Requisites: COMU 101-102, COMU 105-106 y 210 COMU 308

COMU 400

Communications Seminar

Three Credits

This course prepares the student to complete the process of conducting research fieldwork and analysis, as well as weighting the main findings of the study. The writing skills necessary to communicate effectively the final report are also discussed. Particular attention is devoted to criticism and analysis of the various techniques and data collection tools that can be applied to the study of communication phenomena. Requisites: COMU 101 - 102, 105 - 106, 210 and 300-303.

COMU 401

Professional Practice Workshop (internship)

Three Credits

This course discusses and presents, in general terms, the types and areas of work offered in the field of communications. The student develops strategies for professional job search, to identify opportunities and to achieve effective job interviews. It also provides students with a practical experience in an area of particular interest. Requisites: All second and third year concentration courses. Requisites: COMU 101 - 102, 105 - 106, 200, 205, 210 and 300-303, 306 y 309

COMU 402

Communications: Legal and Ethical Aspects

Three Credits

This course studies the ethical codes that apply to the contents and tasks of the workers in the mass media. It presents an overview of what ethics has meant over time and across cultures. It also promotes the analysis of current issues and highlights the importance of implementing the codes of ethics of the different communications professional practices. The basic legal aspects, policies and regulations that govern both the operation of the mass media as well as the New Technologies of Information and Communication (NTIC's) are also studied. Requisites: COMU 101-102, 210, HUMA 101- 102 and PHIL 103

COMU 403**Translation****Three Credits**

This course provides basic practice in the translation of messages from English to Spanish. It also comprises the analysis and revision of texts of relative idiomatic difficulty. Requisite: COMU 101-102, 105 -106, 200 and 306, SPAN 103 - 104 or 105 - 106 and 216, ENGL 103 - 104 or 105 - 106

COMU 404**Communications Final Project****Three Credits**

The student develops a final project in their area of expertise or expected professional practice to demonstrate the knowledge acquired in the Program. The course promotes the practical experience of producing a project for distribution or publication in written, electronic or digital media. Requisite: COMU 101-102, 105 -106, 200 and 306, SPAN 103 - 104 or 105 - 106 and 216, ENGL 103 - 104 or 105 - 106

COMU 410**Strategies and Marketing of Mass Media Companies****Three Credits**

This course provides the rationale for the study of basic and essential skills to effectively manage communication companies. Definitions and examples of various types of corporate strategies to address media companies complement the content of the course. Financing models, internal and external Entrepreneurship environments, planning and evaluation of marketing strategies and economic dimensions of media companies are also emphasized. The course should be taken during the final year of study. Requisite: COMU 101, 102, 210, 308 y 309

SECURITY AND PROTECTION INSTITUTE (ISEP)

MISSION

The Institute for Security and Protection (ISEP) is an academic institute within the Ana G. Mendez University System. ISEP's mission is to broaden education opportunities in security and protection for the personnel of municipal, state and federal agencies, as well as for ordinary citizens from our communities. ISEP promotes the professionalization of the security y protection personnel with the highest quality standards. In this manner, ISEP contributes to the social and economic development of Puerto Rico.

PROGRAM DESCRIPTION

The Associates Degree in Penal Justice with emphasis on Security and Protection or emphasis on Correctional Security is a program dedicated to professionalization and training of individuals in the area of security. This program prepares individuals to apply the theory and practice of police sciences and criminal justice in their daily work. Includes instruction in the history and theory of law and order agencies, human and community relations, mediation, crime scene investigation, first aid, vehicle operations, use of fire arms and less lethal weapons, tactical defenses, among others.

ADMISSIONS REQUIREMENTS TO THE PROGRAM

These are in addition to the general admissions requirement at UNE.

- High School grade point average of 2.0 for Associate programs in:
 - Penal Justice

GRADUATION REQUIREMENTS THE PROGRAM

The graduation requirement for the general grade point average is of 2.0 and for the major component is 2.3.

ASSOCIATE IN PENAL JUSTICE WITH EMPHASIS IN SECURITY AND PROTECTION

54 Credits	Credits
General Education	27
Professional Education	11
Major Courses	16

General Education Courses		57
SPAN 111-112 or SPAN 115-116 or SPAN 125-126	Reading and Writing I Reading, Writing and Oral Communication in Spanish I Language, Reading and Writing I	6
ENGL 108-109	Oral Communication I, II	6
PJPS 108	Basic Ethical Values	3
PJPS 112	Civil Rights and Crisis Situations	3
PJPS 116	Intervention with Special Populations	3
PJPS 120	Mediation and Intervention	3
PJPS 124	Human Relations and Community	3

Professional Education		11
PJPS 132	Information and Communication Technologies for Officials	2
PJPS 204	First Aid for Penal Justice Officials	2
PJPS 216	Traffic Accident Investigation	2
PJPS 210	Integrated Seminar in Criminal Law, Criminal Procedure and Evidence	3
PJPS 214	Scene Investigation	2

Major Courses		16
PJPS 208	Physical Training And Nutrition For Penal Justice Officials	2
PJPS 220	Transit Interventions	2
PJPS 224	Vehicle Operation	2
PJPS 228	Police Patrol I	2
PJPS 229	Police Patrol II	2
PJPS 236	Use And Management Of Less Lethal Weapons	2
PJPS 238	Principles of Tactic operations	2
PJPS 240	Use and Handling of Firearms	2

BACHELOR IN PENAL JUSTICE WITH MAJOR IN SECURITY AND PROTECTION

120 Credits	Credits
General Education	30
Professional Education	29
Major Courses	58
Free elective	3

General Education Courses		30
SPAN 111 or SPAN 115 or SPAN 125	Reading and Writing I Reading, Writing and Oral Communication in Spanish I Language, Reading and Writing I	3
ENGL 108-109	Oral Communication I, II	6
SPAN 112 or SPAN 116 or SPAN 126	Reading and Writing I Reading, Writing and Oral Communication in Spanish I Language, Reading and Writing I	3
PJPS 108	Basic Ethical Values	3
FYIS 101	Induction Seminar	3
PJPS 116	Intervention with Special Populations	3
PJPS 120	Mediation and Intervention	3
BIOL 101	Biological Sciences	3
MATH 120	introductory algebra	3

Professional Education		29
PJPS 132	Information and Communication Technologies for Officials	2
PJPS 204	First Aid for Penal Justice Officials	2
PJPS 216	Traffic Accident Investigation	2
PJPS 210	Integrated Seminar in Criminal Law, Criminal Procedure and Evidence	3
PJPS 214	Scene Investigation	2
POSC 380	Constitutional Law	3
PJPS 124	Human Relations and Community	3
PJPS 112	Civil Rights and Crisis Situations	3
STAT 300	Statistical Foundations I	3
SOCI 216	Contemporary Social problems	3
CRIM 435	Case Preparation and Court Testimony	3

Major Courses		58
PJPS 208	Physical Training And Nutrition For Penal Justice Officials	2
PJPS 220	Transit Interventions	2
PJPS 224	Vehicle Operation	2
PJPS 228	Police Patrol I	2
PJPS 229	Police Patrol II	2
PJPS 236	Use And Management Of Less Lethal Weapons	2
PJPS 238	Principles of Tactic operations	2
PJPS 240	Use and Handling of Firearms	2
CRIM 305	Criminal Justice System in Puerto Rico	3
CRIM 320	Criminal Investigation Techniques	3
CRIM 325	Juvenile Delinquency in Puerto Rico	3
CRIM 327	Foundations of Management of Correctional Facilities	3
PUAD 203	Human Resources Management in Public Administration	3
PUAD 310	Personnel Training	3
PUAD 400	Government and Planning	3
PUAD 405	Public Budget	3
PUAD 358	Administrative Law	3
PUAD 231	Management and Supervision for Security and Protection Officers	3
PJPS 300	Tactical Planning	3
PJPS 310	Incident Management System	3
PJPS 400	Management and Supervision of the Crime Scene	3
PJPS 410	Criminal Intelligence	3
TOTAL		
Free elective		3

COURSE DESCRIPTION

CRIM 305

Criminal Justice System in Puerto Rico

Three Credits

Introductory course in which the origin and development of the Criminal Justice system in Puerto Rico will be studied. The class will examine the aspect and basic functions of the police, the courts, the lawyers of the defense, the district attorney, the correction facilities and the juvenile justice system. Consideration is given to the study of the crime, definition, reach and factors associated with crime.

CRIM 320

Criminal Investigation Techniques

Three Credits

The course includes the study of the origin and evolution of the criminal investigation and its relation with the antisocial behavior in Puerto Rico. The criminal investigation process is analyzed from the study of the crime scene down to the judicial process. Basic scientific interviewing techniques, interrogations and investigation methods are studied.

CRIM 325

Juvenile Delinquency in Puerto Rico

Three Credits

The course presents a broad vision of juvenile delinquency. The theories relating to the causes of delinquency (nature and extent) are studied in order to analyze the causes of illegal behavior of youths, within the context of the family, school, and community, are discussed. Delinquent behavior and due process of the law related to the modern social institutions in Puerto Rico will be discussed. The students will analyze the social relations to the problems of juvenile crime (prevention, treatment, and control), as well as, the analysis of the history and role of the juvenile court system. Students must approve CRIM 103 and 203 as pre-requisites for this course.

CRIM 327

Foundations of Management of Correctional Facilities

Three Credits

Principles of the correction system in Puerto Rico, its philosophy, legal bases, organization and administration of correctional facilities. Included are the area of penal institutions, community programs, the parole board, community rehabilitation, the bureau of evaluation and canceling, program of treatment and assistance for people confined to penal institutions and the penal officers group. Students must approve CRIM 103 and PALE 105 as pre-requisites for this course.

CRIM 435**Case Preparation and Court Testimony****Three Credits**

A study of the rules of evidence relating to the judicial process, with emphasis on hearsay and its exception, how to prepare an effective presentation of a case before a court, and how to present to evidence. Students must approve CRIM 103, 203 and 206 as pre-requisites for this course.

PJPS 108**Basic Ethical Values****Three Credits**

Study of the basic ethical values and the importance of its application in labor scenario by security, protection and correctional officers. Discussion of applicable legislation and jurisprudence.

PJPS 112**Civil Rights and Crisis Situations****Three Credits**

Study of Civil Rights in Puerto Rico and the United States. It presents the Constitutions of both countries and highlights the Bill of Rights, Privileges and Immunities within those Constitutions. This course prepares students for the effective implementation of strategies for safety and security while ensuring respect for civil rights. Teaching strategies include lecture, discussion and case analysis.

PJPS 116**Intervention with Special Populations****Three Credits**

Study of theoretical and practical aspects related to the intervention of security officers, correctional officers protection and intervention with special populations such as children, elderly, victims of domestic violence, ethnic groups and alcoholics and people with health conditions mental.

PJPS 120**Mediation and Intervention****Three Credits**

Mediation promotes communication and understanding between the parties in conflict dialog offering alternatives to the parties involved. This course includes concepts of conflict resolution, the relevant legislation, communication skills and aspects of the intervention in situations related to the work environment and tasks performed by legal professionals.

PJPS 124**Human Relations and Community****Three Credits**

Study of human relationships and the community for public safety personnel. It focuses on describing the characteristics of the police system for the community, its relevance and applicability in today's society. It also seeks to develop a sense of commitment to working with communities and the

development of preventive and proactive rather than reactive or palliative to the crime. Teaching strategies include lecture, discussion and case analysis.

PJPS 132

Information and Communication Technologies for Officers

Three Credits

Course aimed at studying the evolution of human communication and application of technology to exchange information. It is based on the principles governing communications technology for achieving effective management of information. It lays the foundation in the methods of safety and security of communications between individuals. It describes the processes of verbal interaction and written in a laboratory for the application of technology to the processes that occur in class.

PJPS 204

First Aid for Penal Justice Officers

Three Credits

Instruct students in the primary care of a medical emergency and include the occupation of public safety personnel as the first rescuer. The student will learn to provide services in settings which require special knowledge and skills: anatomy, basic physiology of the human body, vital signs, shock or fainting, burns, diabetes, childbirth, epilepsy and stroke. Through practical exercises are taught to handle emergencies: choking, bleeding, and basic measures of cardiopulmonary resuscitation (CPR).

PJPS 208

Physical Training and Nutrition for Penal Justice Officers

Three Credits

The students will learn different workout routines that will allow them to perform each of their tasks or functions as an agent of law and order. Emphasis in the holistic physical development, including aspects of nutrition, rest and exercise.

PJPS 210

Integrated Seminar in Criminal Law, Criminal Procedure and Evidence

Three Credits

Study of the general principles of the Puerto Rico Penal Code, the Special Penal Laws, Rules of Criminal Procedure and the Rules of Evidence, which govern the area of criminal law in Puerto Rico. It lays the foundation as to the legal rules applicable to minor offenses, special procedures and exceptions to exceptions previously established standards. It is used as the main methodology of the analysis of case study on the techniques of legal hermeneutics.

PJPS 214

Scene Investigation

Three Credits

The study of the history and purpose of criminal investigations and the terminology of this specialty. Provide adequate instruction in the elements, concepts and fundamental techniques in criminal investigations, such as: profile of the delinquent or criminal, emphasizing criminology, crime scene

management, development of confidants and informants, and characteristics of an investigator. Practical exercises that apply the acquired knowledge will be presented.

PJPS 216

Traffic Accident Investigation

Three Credits

This course will discuss the duties, responsibilities, and regulations of drivers mandated by Vehicles and Transit Law of Puerto Rico. Additionally, the student will learn how to apply and enforcement this law. Also, the student will understand the different determining factors and legal aspects of accidents in order to conduct traffic accident investigations.

PJPS 220

Transit Interventions

Three Credits

Discussion of the duties and responsibilities of law enforcement officer, the driver according to the Vehicle and Traffic Law and Puerto Rico and the regulations have been promulgated for implementation and applicability. The student will know the internal guidelines and protocols to follow in a safe and effective intervention.

PJPS 224

Vehicle Operation

Three Credits

Will discuss the form and manner as the operation and execution of motor vehicles to travel on public roads are an unknown factor if the provisions of the Vehicle Traffic Law of Puerto Rico and the regulations have been promulgated for implementation and applicability. In addition, the student will know and identify the different categories of licenses for driving on roads in Puerto Rico.

PJPS 228

Police Patrol I

Three Credits

Study skills and techniques of patrol officers to safety and security need to respond appropriately to the different calls. Will emphasize methods of approach to high-risk situations: techniques of patrol vehicles, safety interventions and structures, foot patrol, responding to crimes in progress, communication and report writing. Includes practice exercises. It is a pre-requisite for PJPS 229.

PJPS 229

Police Patrol II

Three Credits

This course provides skills to respond to Hazardous Material incidents, bomb Threats, building evacuation, and weapons of mass destruction. The students are introduced to the Existence and Activities of criminal groups, tumults and extremist groups. Practical exercises included. Students must approve PJPS 228 as a pre-requisite for this course.

PJPS 236**Use and Management of Less Lethal Weapons Three Credits**

This course is the study and management of less-lethal weapons, from its structure, components and definition to its effects. The student will learn the types of less lethal weapons and how they differ from firearms. Likewise, know the importance of responsible use of these weapons and the proper equipment to protect yourself and others.

PJPS 238**Principles of Tactic Operations****Three Credits**

Study and practice in self-defense techniques, use and management of rattan (expandable baton). The student is trained in the techniques and mechanics of arrest. It trains the student in tactical formations to handle situations of civil unrest and crowd control. Students will learn and apply the water rescue. We study the procedures applicable in situations and hostage negotiation.

PJPS 240**Use and Handling of Firearms****Three Credits**

This course enables students to handle the gun carriage and regulations of the Police of Puerto Rico in a proper and legal. Emphasis is given to the laws, both state and federal regulations and the General Orders of the Police of Puerto Rico, in the use of the weapon. Also become familiar with the use and management of the Remington shotgun cartridge 12, the Rifle Colt M-16 A-1 and A-2, including tear gas and pepper spray.

PJPS 300**Tactical Planning****Three Credits**

Study about the elaboration of the operational and strategic plans aimed at determining the essential resources needed to execute security plans as well as the effective use of such resources by the security agencies. Efficient assignment of specific tasks to particular operational units and individuals. Determine the specific tasks and responsibilities of the people assigned to the execution of plans.

PJPS 310**Incident Management System****Three Credits**

Analysis and discussion of the Emergency Management System, kinds of incidents and emergencies. Study of the Unified Command System, levels of operation and communication by situation. Strategic planning and programming of risk and dangers mitigation. Study of the respond and recovery procedures. Study of the responsibilities of the private sector, the state government, the municipal government and the federal agencies in the emergency management system.

PJPS 410**Criminal Intelligence****Three Credits**

Analysis and evaluation of search strategies, analysis and dissemination of information about criminal activity. Criminal Intelligence seeks to satisfy the need of information of the security personnel in the prevention area, prosecution and judiciary. Also provides information about organized crime in order to implement coordinated actions to establish plans and policies against crime in all its manifestations. Criminal Intelligence is presented as advance knowledge achieved through information processing and emphasizes its timely dissemination to contribute to decision-making and to meet safety and welfare.

PJPS 400**Management and Supervision of the Crime Scene****Three Credits**

Study and critical analysis of the management of a crime scene. Study of the theoretical fundamentals, stages in the process of intervention of the scene. Effective strategies and techniques in managing the crime scene by officers of law and order from an administrative and supervisory position.

POSC 380 Constitutional Law**Three Credits**

Study of the principles, figures and foundation of the Puerto Rican and American Constitutions. The course focuses on the study of civil rights, as well as the privileges and immunities granted by these constitutions.

PUAD 400**Government and Planning****Three Credits**

Analysis of the meaning, the nature, the scope and the utility of planning and its methods. Examination of the current trends in social movements and styles of planning.

PUAD 405**Public Budget****Three Credits**

Study of the constitutional, legal and administrative nature of the public budget. Discussion of the budgetary cycle and the formulation, execution and control process. At the end of the course students will formulate a budgetary petition.

PUAD 203**Human Resources Management in Public Administration****Three Credits**

Study of the theoretical, legal and practical aspects of personnel administration. The Commonwealth Personnel Law (Law number 5 of 1975) and its regulations are studied to gauge their impact on Puerto Rico's public administration practices.

PUAD 231**Management and Supervision for Security and Protection Officers****Three Credits**

In this course students will learn the basic principles of management and supervision of security staff. Students will learn about supervisory styles, different types of public agencies and private monitoring strategies. In addition, students will develop skills in planning and logistic aimed at managing the staff that provides security, surveillance and protection services.

PUAD 310**Personnel Training****Three Credits**

Training of Personnel is a course designed to provide the student with an understanding of the importance of training in a large organization and practical view into the management of the training function.

PUAD 358**Administrative Law****Three Credits**

Study of the doctrines and principles of the administrative law in public administration. Discussion to the relationship between administrative law and the regulation of the executive branch in regard to the of role state. Discussion of the Law 170, Administrative Uniform Procedure Act, and the Law 12, Governmental Ethics Act. Discussion of applicable case law.

MATH 120**Introductory Algebra****Three Credits**

Study of elementary algebra topics such as: theory of sets, real numbers, algebraic expressions, equations, linear inequalities and operations with polynomials.

SOCI 216**Contemporary Social problems****Three Credits**

Critical, theoretical, and empirical examination from the sociological perspective of the social problems, their classification of deviant behavior and the subsequent informal and formal social control. The course includes the influence of the social communication media and the structures in the construction of social problems. Comparative analysis of these local and global problems, their possible solutions by means of citizen actions and by the governmental structures that generate public policy destined to attend to and extenuate them. Analysis of readings and simulation exercises, case studies, statistical analysis, responsible use of technology, and the study of public policies related to the course will be used.

STAT 300**Statistical Foundations I****Three Credits**

This course is an introduction to statistics applied to Social Sciences. It focuses on descriptive statistics.

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