

**Annual Report 2023-2024**

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## I. General Information of the Dean's Office and Associated Units

### a. Mission and Vision

#### i. Mission and Vision of the Dean's Office

#### Vision

Be a leading college, known for its high standards, its contribution to social and economic development of the local and international community by seeking and implementing new knowledge.

#### Mission

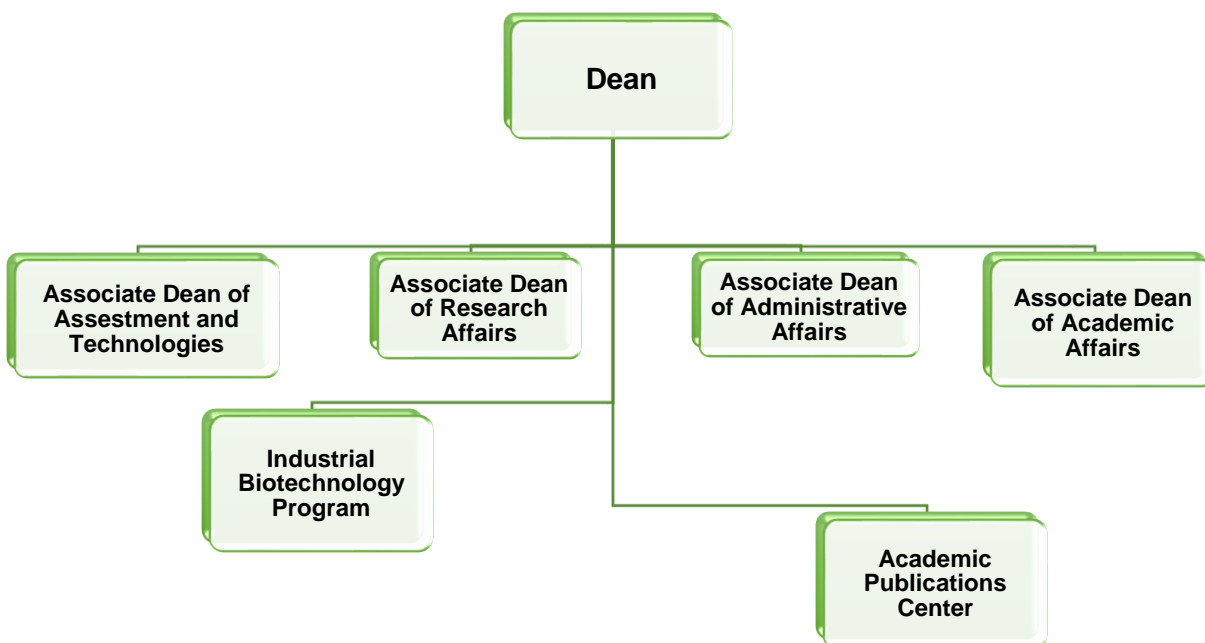
Provide an excellent service to Puerto Rico and the world:

- Forming educated citizens, capable of critical thinking and professionally prepared in the arts and sciences so that they can contribute in an educational, cultural, social, technological and economic development.
- Perform creative work, of research and service, that meets the needs of society and divulge the results of these activities so they can be accessible for everyone.

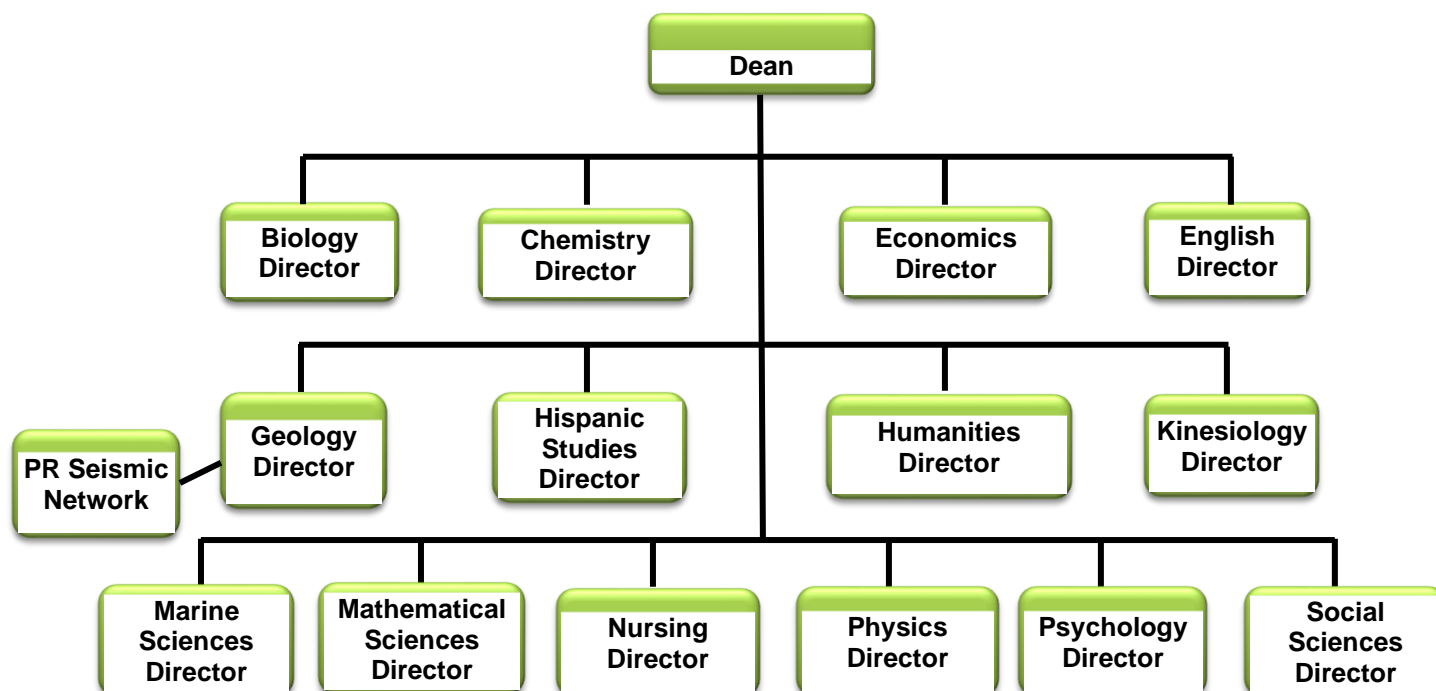
Provide our students with the necessary skill and sensitivity, to effectively solve the problems we face and be an example of the values and attitudes that must prevail in a democratic society that values and respects diversity.

### b. Organizational Structure

#### i. Organizational Chart of the Dean's Office



## ii. Organizational Chart of associated units under the Dean's Office



## II. Report on Initiatives, Activities, and Achievements in Accordance with the Strategic Plan

## a. Executive Summary

The College of Arts and Sciences has 14 departments offering 44 undergraduate and graduate academic programs. In addition, we have an interdisciplinary undergraduate program in industrial biotechnology. The annual work by these departments actively contributes to the mission of our institution. During the 2023-2024 academic year, all departments carried out multiple initiatives of teaching, research and creative work that are summarized in a very limited way in this report. However, the wide dissemination of these important achievements and events can be accessed in several ways. One of them is through the website of the Deanship ([www.uprm.edu/arci/](http://www.uprm.edu/arci/)), which allows to know more details of the departmental initiatives. We also have an information technology person, who gives the appropriate maintenance to the page and facilitates the use of other technologies for the dissemination of the different initiatives. The Deanship also has a Facebook page where events and information of general interest are published. This allows for more outreach to the university community, as well as others off campus. One of the main activities carried out by the departments has to do with the culture of strategic planning and assessment. Each unit has a planning committee and an assessment coordinator who facilitate the work according to the particular needs. Some of their important tasks are reported here, highlighting the work related to the revision of strategic plans and the assessment of student learning. The third volume of the *Avalúo Plus* magazine was published with six articles of assessment projects. It is also important to highlight the efforts made to improve academic offer and faculty recruitment. Regarding the objective of guaranteeing the best education for our students, all departments are carrying out curricular revisions that will allow our programs to be more competitive and modern. This task has included the review of courses, sequences and

complete programs. Distance education has been strengthened through different initiatives, including the preparation of classrooms with appropriate technology to have face-to-face and remote students at the same time. Several departments are working with new graduate programs like the Master's Degree in Sustainable Economic Development and a Ph.D. program in Physics. Professors from different departments organized or participated in events that positively impacted our students. On the other hand, the different units of our Deanship have continued their efforts to increase and diversify their sources of revenue. That includes the search for private donations, research proposals, services provided such as educational talks and workshops, use of facilities, writing books, RUMex courses, continuing education programs and intramural practice. In addition, departments have made efforts to achieve more agile and efficient administrative processes. This included continuing to improve communication mechanisms, automation and digitalization of processes, staff training activities, paper reduction policies, updating forms, self-studies, and administrative assessment projects. Here we can highlight the great effort made by several departments in order to create and maintain a new and better webpage using the Wordpress software. The departments have made multiple efforts to strengthen research and creative work. Several proposals for external funding were submitted and approved as described in this report. In addition, various activities were carried out to disseminate the work, such as peer-reviewed scientific publications, books, conferences and virtual events. The social impact of the various efforts made by our departments was demonstrated through collaborations with the University Institute for the Development of Communities, educational talks to various groups, activities of student associations, Mathematical Olympiads, Summer Camp, Open House, collaborations with the municipality of Mayagüez and other private non-profit entities, tutoring activities, radio interventions, voluntary consultancies, activities of the Landslide Office, among many others. The strengthening of the school spirit, pride and identity can be seen reflected in various activities, such as the celebration of anniversaries and those carried out by student organizations. Our teachers and students have proudly represented our campus in various local and international activities such as congresses and competitions. Several departments organized activities to recognize the effort of our honor roll students. In various events, such as exhibitions and artistic creations, students had a leading role in which they demonstrated their talent to the entire community. In summary, the great richness and diversity that exists in the College of Arts and Sciences demonstrates our strong commitment to continue strengthening the academic excellence of the programs.

**b. Objective 1: To institutionalize a culture of strategic planning and assessment**

**Department of Economics**

- The Assessment Plan (academic and administrative assessment) of the Department of Economics was reviewed. The Assessment Plan covers the academic and administrative affairs of the Bachelor of Arts Program in Economics, and the Minor Concentration in Economics thought-out the Academic Years 2023-2024 and 2024-2025.
- On Monday, November 6, 2023, the faculty members reviewed the mission and vision of the Department of Economics. This exercise is part of the review process of the departmental Strategic Plan and the requirements of Certification No. 55 (2021-2022) of the Board of Governors of the University of Puerto Rico and accrediting agencies, such as the Middle States Commission on Higher Education (MSCHE). The mission and vision were reviewed and approved by the department's faculty at the first regular meeting of the second semester of the academic year 2023-2024 held on Thursday, February 7, 2024.

- Dr. Ricardo R. Fuentes Ramírez informed that the preparation of the Departmental Assessment Plan was completed. In addition, the Avalúo Plus Magazine was published, of which he was editor/coordinator, and which included an article on the assessment efforts in the Department of Economics. Dr. Fuentes presented his article titled Incorporating qualitative methods to evaluate the role of Economics courses in achieving the Departmental Educational Objectives at the official presentation of the Volume 3 of the Avalúo Plus Magazine on May 2, 2024.
- The Department of Economics Bachelor of Arts in Economics Program Learning Outcomes (PLOS) and the Bachelor of Arts in Economics Program Learning Outcomes (SLOS) were reviewed and approved at the regular departmental meeting held on Thursday, March 7, 2024.
- A report presenting the answers to the questionnaire distributed to the freshman students of the Bachelor of Arts in Economics Program who attended the welcome and orientation of the Department on Friday, August 4, 2023, was presented and discussed at the 1st regular Departmental meeting held on Thursday, September 18, 2023.
- The 2024 graduating class of the Department of Economics completed the Class of 2024 Exit Questionnaire which was carried out in April 2024. The results of the exit questionnaire will be presented and discussed for approval at the first departmental meeting of the First Semester of the Academic Year 2024-2025.

### **Department of Geology**

The Geology Department is currently in the process of reviewing the Strategic and Assessment Plans. The new versions should be ready for the 2024-25 academic year. Assessment exercises were continued, especially related to the undergraduate research courses.

### **Department of Hispanic Studies**

- An academic assessment plan for 2024-2027 was developed and will be submitted for faculty approval in August.
- An exit survey was given to students who graduated in the 2023-2024 academic year.
- All hiring processes for a new Literature faculty member were finalized by December 31, 2023.
- All hiring processes for a new Linguistics faculty member were finalized by June 30, 2024.

### **Department of Humanities**

- In the academic year 2023-2024, the Department of Humanities made significant strides in academic assessment and strategic planning with the establishment of an Assessment Committee, a pivotal development aimed at enhancing student experience and program effectiveness. Spearheaded by Dr. Edgardo Ramírez, a temporary hire with expertise in academic assessment, the committee began its foundational work by designing comprehensive questionnaires to gauge student needs upon entry into and exit from the programs. This initial phase focused on refining survey methodologies to ensure robust data collection and meaningful insights. Looking ahead, the department plans to implement these questionnaires starting with freshmen orientation on August 1st, 2024, and culminating in a dedicated event for graduating students at the end of the 2024-2025 academic year. Moreover, each program within the department conducts its own assessments biennially, seeking student feedback on course offerings and other pertinent aspects, thereby fostering continuous improvement and alignment with student

expectations. These initiatives underscore the department's commitment to proactive assessment practices and strategic planning to optimize academic experiences and outcomes for its student community.

- Additionally, the Department of Humanities has undertaken a thorough review of its programs, particularly in response to shifting enrollment trends observed in Fine Arts, Philosophy, French Language and Literature, and Comparative Literature. Recognizing the need to adapt to changing student interests and market demands, faculty members within these programs have proactively initiated curriculum adjustments. For instance, the Fine Arts program, historically broad in scope, recently introduced a series of minors aimed at specialization, responding directly to student demand and industry requirements. Notably, the Art Theory program has experienced a notable increase in new admissions, signaling a growing interest in its offerings. In response, the program is undergoing substantial curriculum revisions to enhance relevance and focus. Proposals for new minors in Latin American and Caribbean Art History, as well as Museum Studies with concentrations in theoretical and restoration aspects, have been submitted, aiming to better prepare students for careers in museums while expanding research opportunities within the program's academic framework. These strategic adjustments reflect the department's proactive approach to ensuring program vitality and alignment with both student aspirations and emerging academic and professional landscapes.

### **Department of Kinesiology**

- We have a part-time computer engineer graduate student and a physical education assistant (Mr. Orlando Cruz) that received the WordPress certification that maintained departmental website. The website provides update information regarding social activities, academic programs, research, community programs, faculty members, strategic plan, facilities, and employment opportunities. Additionally, administrative staff maintained a social media including Facebook page.
- Our department developed a variety of modification in the academic curriculum, class hours available for student, higher involvement with community work, and higher research participation. For example: 1) the Physical Education programs presented an academic curricular changes in order to maintained the Department of Education teacher requirements (Certification 24-17 *Senado Académico* UPRM is under revision UPR Academic Unit), 2) the Kinesiology Master Program implemented Plan III option to maintain the institutional assessment in order to provide opportunities for students (Certification 23-19E 2023), 3) coaching courses programing changes (from morning to evening), all sport coaching courses (8 courses) were available in the evening (3:00 to 7:00pm) to provide practice hours in sport settings. 4) undergraduate students' participation (EDFI4998) and graduate research (KINE6991) to work with different research topic (technology in sport, territorial discrimination in sport settings, recreational satisfaction among students, burnout amount collegiate athletes, among others). 5) Officially changed the Program and diploma name from Physical Education to Kinesiology (Cert. Num 188, 2023-24).6) New courses to update the undergraduate curriculum with Anatomy and Kinesiology and Introduction to Kinesiology.
- In 2023-24, the Department of Kinesiology began to provide metric analysis regarding students' active participation in community programs, freshmen student retention plan, and graduation rate. Every month, the Department meeting presented updates among our students, maintaining the institutional strategic plan and the assessment evaluation plan.

### **Department of Marine Sciences**

- The last version of the Department of Marine Sciences (DMS) strategic plan covered the period from 2014 to 2022. We are currently updating the plan for the next six years. The previous plan included eight objectives, each with strategies and metrics for evaluating success (appendix 6). Objectives one and two are crucial as they focus on increasing the quality, diversity, and expertise of faculty, strengthening academic links, providing teaching and research assistantships, and improving administrative protocols. Metrics for these objectives include faculty composition, agreements with other departments, teaching and research assistantships, research theses, external grants, and new courses.
- Recent data shows an increase in student applications and graduates, peer-reviewed publications, and externally funded projects. For instance, 18 applications were received in 2023, the highest in many years. The valuation committee is developing an assessment protocol to evaluate the strategic plan's objectives, using these metrics as indicators of the program's success.

### **Department of Mathematical Sciences**

- The Math Department promotes a collaborative and systematic approach to ensure our educational and administrative practices align with institutional goals, fostering comprehensive student development and professional staff growth. This strategy aims to improve academic performance, respond to educational challenges, and create a dynamic, continuous learning environment.
- Departmental Colloquium: A series of conferences by prestigious national and international mathematical community members designed to promote professional improvement among professors, graduate students, and undergraduate students, and to encourage inter-university collaboration.
- Interuniversity Seminar on Mathematics Research (SIDIM): SIDIM is an international academic activity showcasing the latest research in Pure Mathematics, Applied Mathematics, Mathematics Education, and Computer Science. This seminar, proven in RUM, celebrated its XXXVIII edition. Future venues are selected at the year's closing meeting. The Steering Committee organizes the activity and selects plenary speakers. Registration is required for recurring lectures and poster presentations.
- Awards and Competitions: Gauss Medal: Annual award for the best averages in high school programs. Pre-Calculus and Calculus Competitions: Organized by Dr. Reyes M. Ortiz and Dr. Pedro Vásquez, held on March 14, 2024, to promote mathematical culture among future university students. COMATEQ International Competition 2024: 8th edition on March 2, 2024.
- Achievements and Awards: Visit of Astronaut Dr. Marcos Berríos: Highlighted the importance of the Puerto Rico Mathematical Olympiad in developing academic discipline. Pre-Graduation Activity: Recognized 13 MS students who completed their degrees.

### **Department of Nursing**

- The Evaluation Committee carried out all the evaluations of courses, competencies assessment, and expected outcomes according to the requirements of the Accrediting Agency and expectations of excellence of the Program and institutional mission.
- The strategic research plan for the identification of external funds identified various opportunities that were not available at this time due to the lack of a graduate program in Nursing.



- The Curriculum Committee completed a proposal for a graduate program (MSN) and three specialties.
- The Personnel Committee completed the formative evaluations of contract faculty and the peer evaluation on class performance. To lead higher education throughout Puerto Rico while guaranteeing the best education for our students
- Integration of students in diverse clinical and community experiences.
- Students participating in the COOP received excellent ratings from employers (Mayagüez Medical Center, Bella Vista Hospital, Pavía Perea Hospital, RUM Medical Services).
- Community health promotion activities were incorporated into maternity, pediatrics, psychiatry, medical-surgical I-II, and community health courses.

### **Department of Physics**

- During the academic year 2023-24, the Department of Physics continued to review the Strategic Plan, which was last revised during the academic year 2021-22. The Department of Physics has begun to implement part of the new administrative Assessment Plan. The review of the Physics Department Strategic Plan has not yet been completed and we expect to be able to continue its review early next academic year.
- The current Strategic Plan of the Department of Physics is aligned with the Strategic Plan of the Faculty of Arts and Sciences 2012-2022 and with the goals of Ten for the Decade: Diary for the Planning in the University of Puerto Rico (2005-2015). We hope that as the strategic plan changes at the level of the University of Puerto Rico changes, our plan will show the necessary alignment with it.
- The Department of Physics continues to send the Exit Survey by e-mail to its graduates from all the programs offered by the Department. The results of the survey are currently being analyzed and we hope that they will help us to update all our strategic plans so that we can adapt our academics offer accordingly.

### **Department of Social Sciences**

To facilitate the strategic planning of the academic offer and continuous curricular review, the faculty is assigned to one of the academic programs and these in turn select a coordinator to facilitate the planning of the academic offer of each program. However, there are faculty members who offer courses in more than one program. During this year, the program coordinators together with the director of the Department coordinated the course programming of all the programs.

In the same way, our students maintain a database of the Social Sciences program. Its purpose is to generate information that helps us to describe the effectiveness of the Programs, to identify areas that need attention, and to develop strategies to improve the teaching and learning process in them.

## **c. Objective 2: To lead higher education throughout Puerto Rico while guaranteeing the best education for our students**

### **Department of Chemistry**

- A new General Chemistry for Engineering course was created for engineering students. This course was approved for the Chemistry faculty. It also has been approved by the university Academic Senate.

- Twenty-five seminars were offered in the Department of Chemistry during this academic year.
- In the 2023-2024 academic year, 65 new graduate students were accepted. On the other hand, 30 students completed their B.S. degree in Chemistry, 4 completed their MS degree in Chemistry, and 4 students completed their Ph.D. degree in Applied Chemistry.

### **Department of Economics**

- Dr. Ivonne del C. Díaz Rodríguez reported the approval of the new course, Economics for Well-being and Sustainability (ECON 3026), which will be offered by the Department of Economics starting August 2024. This course has also been integrated into the proposal for a curricular sequence in Sustainability Engineering (ISOS) at UPRM. Dr. Díaz also organized a workshop on sustainability and circular economy for high school students during Earth Week in Santa Isabel, conducted by UPRM students.
- Dr. Ricardo R. Fuentes Ramírez, Assistant Professor, submitted an initial draft for a Master's Degree in Sustainable Economic Development to the Departmental Curriculum Committee. This draft received favorable review from the University of Puerto Rico Vice Presidency of Academic Affairs.
- Dr. Fuentes announced a second collaboration agreement with the Puerto Rico Planning Board to provide technical assistance in producing national accounts and the input-output matrix.
- Dr. Fuentes, along with Dr. Julio C. Hernandez Correa from the Department of Agriculture Economics, and students from the Econometrics course (ECON 4017), presented their ongoing research at the fourth edition of the Applied Economics Congress at UPRM on May 10, 2024.
- The UPRM Dean of Academic Affairs authorized the permanent offering of ECON 3026: Economics for Well-being and Sustainability, and ECON 3036: Social and Solidarity Economy, effective Summer 2024, as per Certification No. 23-71 of the UPRM Academic Senate.
- On November 16, 2023, the VPAAI informed the Rector's office of its support for the Department of Economics' intention to create a Master's Degree in Sustainable Economic Development.
- A syllabus model for standardizing all ECON courses was presented at the first ordinary meeting of the second semester of the 2023-2024 academic year on February 7, 2024, based on Certification No. 125 (2023-2024) of the Board of Governors of the UPR.
- The Department of Economics organized its participation in the third edition of the Summer Camp, expecting around 100 high school students from Puerto Rico. The camp will be held at UPRM from June 24 to 27, 2024.
- The Department is contributing to the RUMex project by offering two online courses: ECON 3021: Principles of Economics: Microeconomics, and ECON 3022: Principles of Economics: Macroeconomics.
- The Department is also collaborating in the UPRM Program "Massive Self-Directed Open Courses" (CAAM Courses), a pilot initiative of the RUMbo EX Learning and Success Center, developed by the Resource Center for Distance Education (CREAD), and subsidized by HEERF funds to strengthen academic achievement.
- To enhance the academic offerings, the UPRM Recruitment Plan (version May 10, 2023) includes the hiring of a probationary teaching position for the Department of Economics.

### **Department of Geology**

- We have approved a complete curricular revision of the Bachelor's program. This includes the creation and revision of courses, which has all be completed. The process is currently in the Curricular Committee at the Faculty level, starting with the course revisions and creations.
- On July 27, 2023 student assistants of the SLIDES-PR group had a meeting with a community organization in Corcovada (Añasco) about landslide hazards and potential partnerships. The students from SLIDES-PR were Anishka Ruiz, Danishka Medina, and Astrid Romero.
- On February 2024, graduate student Jarelys Gonzalez participated in collaborative field work at Popocatepetl volcano, to conduct SO<sub>2</sub> gas measurements with UV cameras. The collaboration was with volcanologists from the Universidad Nacional Autonoma de Mexico, the Royal Belgium Institute for Space Aeronomy, and the Istituto Nazionale di Geofisica e Vulcanologia (INGV, Italy).
- Residencia 4A has been reconditioned to become the Puerto Rico Landslide Hazard Mitigation Office, which will start operations in the first semester 2024-2025, under the coordination of Dr. K. Stephen Hughes.
- Acquisition of specialized equipment: 18" Slab Saw - Covington, Engineering, and 2 Trinocular Polarizing Microscopes.

### **Department of Hispanic Studies**

- The following proposals were submitted to the departmental Curriculum Committee:
  - Curricular Sequence in Writing and Oral Communication
  - Course: Oral Communication I
  - Course: 21st Century Science Fiction by Puerto Rican Women
- The course ESPA 3131 was evaluated through: Pre and post-tests to assess digital literacy knowledge, and Course satisfaction survey.
- Two professional development lectures were organized: one by Dr. Vibeke Betances on managing inferences for reading comprehension, and another by Dr. Hilton Alers on the use of artificial intelligence in the classroom. Both lectures were recorded, edited, and uploaded to YouTube.

### **Department of Humanities**

- The bachelor's degree in Philosophy at UPRM offers a diverse range of courses and is increasingly focusing on specialization in Ethics, addressing a critical area of study in Puerto Rico. Graduates of the Philosophy program are well-equipped to contribute to various sectors such as law firms, government agencies, and healthcare institutions, where expertise in ethics is essential.
- The Art Theory program at UPRM stands alone in Puerto Rico, complementing existing undergraduate programs in Art History by emphasizing theoretical perspectives. The faculty at UPRM's Department of Humanities is nationally recognized for their leadership in research, particularly in Puerto Rican and Latin American Art. Notably, Drs. Melissa Ramos Borges and Emilia Quiñones Otal have curated exhibitions at major museums in San Juan, reviewed in prestigious art magazines in the United States, such as Art Review (Santiago Cortés, "How Regina José Galindo Unearths the Colonising Gaze", 14 June 2024). Their scholarly contributions have also been instrumental in shaping courses and academic dissertations at universities across the United States, underscoring the department's influence beyond Puerto Rico.

- Dr. Emilia Quiñones Otal was invited by the University of Nebraska in February 2024 to teach a course where her research and publications had been key to the curriculum and to deliver a lecture on her current investigations.
- Dr. Melissa Ramos was invited by Cornell University to present her exhibition Suzi Ferrer, opening in January 2025.
- The program in French Language and Literature at UPRM fills a unique niche in the Caribbean context, focusing on French-derived languages spoken throughout the archipelago. Dr. Frances Santiago, a leading scholar within the program, has made significant contributions to the study of Caribbean French-derived literature, reflected in her lectures and influential research. Recently, her work influenced an exhibition at The Modern Art Museum in Fort Worth (titled Surrealism and Us: Caribbean and African Diasporic Artists since 1940), highlighting the program's regional and international relevance. Dr. Stephane Pillet's research has also been recognized in the US, and he was recently invited for a lecture at John Hopkins University.
- In February 2024, the Department initiated a partnership with the Department of Humanities at UPR Ponce to develop articulated transfer programs, enabling students to commence their bachelor's degrees in Philosophy or Art Theory at UPR Ponce and seamlessly complete them at UPRM. This collaboration aims to enhance educational opportunities and facilitate academic pathways between the two campuses. Also, the Graduate Program in Cultural and Humanistic Studies is unique in Puerto Rico, and it is an attractive option for people in Puerto Rico and the Caribbean who are interested in pursuing graduate theoretical and research studies. These distinctive programs and scholarly achievements reinforce UPRM's Department of Humanities as a pivotal hub of academic excellence and innovation in Puerto Rico and beyond.

### **Department of Kinesiology**

- Active participation in professional conferences (Association of physical education and recreation, ACSM, Annual Conference of Sport and Recreation, Paralympic Annual conference) and internship in different areas of kinesiology (adapted sport, anthropometry, physical activity for elderly, and physical activity for kids).
- Currently, the Department of Kinesiology is updating and modernizing the curricula by decreasing the number of credits, new courses (pickleball and first aid in sport settings, anatomy and kinesiology). Since 2024, the Department is member of the American Kinesiology Association providing guidelines to update and shorten the curriculum.
- All faculty are active leaders in their academic specialization. For example, some created new courses (Torres, Mendoza, Soltero), offered new courses (Cordero, Rivera, Quiñones), implemented innovative teaching strategies (Figueroa, Alvarez, Silva, Colón, A. Rodríguez, E. Rodríguez, Morales), developed research projects or community programs (Figueroa, Alvarez, Del Río, Fernández, Torres).
- Improve students' experiences and quality of higher education by modernized the appearance and equipment in the exercise physiology lab and strength and conditioning lab. These changes followed the institutional safety measures. The Department provides new space for students to study (Mangual B-7) and students' meeting launch (Mangual).
- In 2023-24 the Department began to offers an in-service training for all employees (faculty and non-faculty) such as: Sexual harassment in Campus (Dr. Enid Rodríguez) and Risk management prevention in sport settings (Dr. Mendoza). In order to used technology and monitor safety environment the administrative coordinator (Mendoza) developed the safety manual for the Department of Kinesiology, open a virtual emergency form used by all faculty and staff (E. Rodríguez) and formal collaboration agreement between Athletic

Department and Kinesiology Department (E. Rodríguez & M. García) allowing share responsibilities and recreational facilities.

### **Department of Marine Sciences**

- Dra. Rotterova, our new Assistant professor updated the course syllabus and program for the course Marine Microbiology and Marine Parasitology to be a curricular sequence, Marine Microbiology I (CMOB8635) and Marine Microbiology II (CMOB8636). She is also developing a new course in Marine Symbiosis (CMOB-XXXX), an extremely important topic for any marine biologist. The first two are already in the program for students to register.
- The Department is pushing the administration to finish the process and certify the new *Professional Master's in Marine Sciences* program, with Plan II (with project) and Plan III (courses and final exam). The program was offered one semester and attracted several new students to the Department, furthermore, several of the current students enrolled in the master's program (Plan I) switched or want to switch to this new program. The DMS hopes that the program will be certified and will be available for the second semester of the 2024-25 academic year.

### **Department of Mathematical Sciences**

- **Curriculum Enhancement:** The curriculum is continuously updated to align with global standards and emerging trends, incorporating interdisciplinary approaches, modern technological tools, and real-world applications to prepare students for academic and professional challenges.
- **Faculty Development:** Investment in faculty training and development is prioritized to foster excellence in teaching, research, and mentorship. This includes support for advanced degrees, conference attendance, and collaborative research projects.
- **Student Support Services:** Comprehensive support services are implemented to cater to diverse student needs, including academic advising, tutoring programs, career counseling, and opportunities for internships and research experiences.
- **Research and Innovation:** A culture of research and innovation is promoted within the department, encouraging faculty and students to engage in innovative research that addresses significant mathematical challenges and advances the field.
- **Community Engagement:** Strong ties with the local community and industry partners are maintained to create collaboration opportunities, internships, and outreach programs that highlight the practical applications of mathematics and promote social responsibility among students.
- **Infrastructure and Resources:** The department ensures access to advanced facilities, laboratories, and resources necessary to support teaching, research, and learning activities, including technology upgrades and a conducive academic environment.
- **Continuous Improvement:** A system of continuous assessment and improvement is implemented to monitor student learning outcomes and gather feedback to enhance the overall quality and effectiveness of the mathematics programs at UPRM.

### **Department of Nursing**

- Collaborative agreements with the agencies that provide clinical experiences were reestablished and the requested changes were incorporated, such as a decrease in students per section.

- Collaborative agreements with University of Rochester Medical Center in Rochester NY, is being completed to engage in clinical practice, students' internships and academic endeavors.
- Student Recognition Awards Day: to honor student's academic achievement and leadership (Sigma Theta Tau International- Epsilon Lambda Chapter, Student Association and College of Nursing Professionals of PR). The Laura Guillen Award was awarded for community service to one student during the ceremony.
- Nursing Student Association of UPRM – inducted new students and 9 students to the new board 2024-2025.
- The Sigma theta Tau, International (Honor Society of Nursing) inducted 18 students from UPRM Nursing, 15 from other universities and 8 Clinical Leaders from all hospitals.
- All faculty completed professional continuing education, maintained professional licenses to practice nursing and kept the legal requirement by the College of Professional Nursing in PR and the Board of Nursing.

### **Department of Physics**

- An ad hoc committee is being formed by the Department to work on the establishment of a Ph.D. program in Physics which, if approved, will offer numerous benefits, including the opportunity to delve deeply into cutting-edge research and make significant contributions to scientific knowledge. Among other things, it provides a platform for intellectual growth and will open doors to a wide range of career options, including academia, research institutions, industry, and entrepreneurship, where advanced expertise is highly valued. The committee is currently working on a draft which will be submitted to the faculty for further consideration and then to the Faculty of Art and Sciences and beyond. The committee is composed of Dr. S. Lysenko, Dr. F. Bezares, Dr. S. Santana, Dr. H. Méndez, Dr. S. Malik and Dr. D. Sánchez.
- An interdisciplinary program in Marine Atmospheric Sciences in collaboration with the Department of Marine Sciences is also being considered as a new emerging program in the Department.

### **Department of Social Sciences**

- Student Internships: During the 2023-2024 academic year, several students from the Department of Social Sciences participated in various internships:
  - Luis A. Ferré Internship: William Santiago and Claudia Ramírez (Political Sciences Program).
  - Shadowing Law Summer: José G. Rullán (Political Sciences).
  - MIT Political Science Department: Bryan J. Meléndez.
  - Summer Pre-Law Academy (SPLA), Boston University School of Law: Dylan J. Alvarez.
  - NSF Research Site Internship: Natalia R. Rodriguez (Political Science Program).
  - Congressional Cordova y Fernos Internship: Marla M. Rau (until September 2024).
  - Summer Consulting Internship: Olearys Crespo (Political Science and International Relations Programs).
  - Inspector General's Office Internship: Monica Rodriguez (Political Science Program).
- Mayoral Debate: On May 9, the Department of Social Sciences organized a debate for mayoral candidates of the Popular Democratic Party in Mayagüez. The event was supported by students from the Public Administration course taught by Dr. Edwin Asencio, who played a key role in organizing and executing the debate. The event received

significant media attention, showcasing the intellectual capacity and organizational skills of the students and highlighting the department's educational impact.

- Recognition of Professor Luisa R. Seijo Maldonado: The Caribbean Division of the American Association for the Advancement of Sciences (AAAS) recognized Professor Luisa R. Seijo Maldonado for her long career fighting for social causes and women's rights in Puerto Rico. She was honored during the annual convention for her contributions, including founding eight organizations such as the Siempre Vivas project and the University Institute for the Development of Communities at RUM. Her work has significantly impacted communities and youth in Puerto Rico, promoting social justice and community development through education and participatory action research.
- A joint Master's and Doctorate program in Applied Social Sciences is being planned. This graduated program would be offered online and in the evening. The program would be made up of 51 credits, practice and dissertation. The program can be completed in a minimum of 4 years and a maximum of 6 years.

#### **d. Objective 3: To increase and diversify the Institution's sources of revenue**

##### **Department of Chemistry**

Our Faculty members, submitted over 50 proposals during this year.

##### **Department of Economics**

- Collaboration with Puerto Rico Planning Board: Dr. Ricardo R. Fuentes Ramírez announced a second agreement with the Puerto Rico Planning Board, providing technical assistance for national accounts and the input-output matrix. This agreement grants \$1 million to UPRM for faculty and student support.
- Ongoing Projects: Dr. Fuentes Ramírez continued work on: The CDBG-DR Project for Comprehensive Community Resilience Planning, providing \$1.4 million to UPRM for faculty and student support. The Nonprofit Strengthening Initiative for Economic Development project, providing ~\$500k to UPRM for faculty and student support.
- Proposal Submission: Dr. Fuentes Ramírez submitted a proposal titled "Imputing an Input-Output Table for Puerto Rico and Applications to Policy Analysis" (USDA-NIFA/Purdue), currently under evaluation.
- External Funding: Dr. Fuentes Ramírez continues research with external funds from the US EDA, the Federal Department of Housing, and the Planning Board.
- Co-PI on Proposal: Dr. Fuentes Ramírez is a Co-PI on the proposal "Imputing an Input-Output Table for Puerto Rico and Applications to Policy Analysis," with Dr. Russell Hillberry and Manuel I. Jimenez (doctoral candidate) from Purdue University's Department of Agricultural Economics.

##### **Department of Geology**

- Ongoing collaboration agreement with the United States Geological Survey (USGS) to establish the UPRM Puerto Rico Hillslope Soil Hydrological Monitoring Network, coordinated by Prof. Stephen Hughes. Since August 2021.
- On July 13, 2023 Prof. Stephen Hughes participated in a meeting at the USGS Geological Hazards Science Center in Golden, Colorado. The meeting was with the Director (Jonathan Godt) and Associate Director (Stephen Slaughter) of the USGS Landslide Hazards Program located Also present in the meeting were Alesandra Morales of the UPRM Dept of Civil Engineering and Rafael Bras from Georgia Tech.

- Several landslide monitoring stations around the island were installed by the SLIDES-PR group, which includes undergraduate and graduate students.

### **Department of Hispanic Studies**

The department has a funding source through Rumex courses. This funding enabled the acquisition of air conditioners for four classrooms, enhancing the facilities for students and professors. The AC units are scheduled to be installed in July 2024.

### **Department of Humanities**

Despite receiving substantial funding totaling over \$1,123,000 from esteemed foundations like Mellon, Teagle, Tiznado el País, and Fundación Puertorriqueña para las Humanidades, the Department of Humanities at the University of Puerto Rico at Mayagüez remains proactive in diversifying its funding sources under the leadership of its new director. In addition to existing funding, efforts have been initiated to cultivate relationships with residents of Rincón, many of whom are from the United States and are eager to support local cultural institutions through donations. Furthermore, a collaborative project with MUSA is underway, aiming to secure funds for artwork restoration via a private event. Looking ahead, the department intends to continue applying for grants from foundations and federal entities to sustain and expand its initiatives.

### **Department of Kinesiology**

- Implementation of the Certification 20-21-090 that provides guideline to loan/rent facilities for external services. The department received \$1,570.50 in Nov. 17, 2023. Also, department used the equipment 360 to raise donations for student and faculty professional conferences or travel (\$500).
- *Donation for Kinesiology lab* – Received \$10,000 the equipment valued and electrocardiogram valued in \$3,000 for the exercise physiology lab (Dr. Torres proposal to obtain lab equipment).
- *External funding* – Dr. Torres received \$300 for the Mascot Challenge by the Program Exercise is Medicine on Campus. Dr. Del Río in alliance with Alumni association received a donation for \$2,000 for the department.
- *NIH External funding* – The Department has promoted and encouraged faculty for external funding. In 2023, Dra. Figueroa applied for proposal (Project Aware) for \$5 millions for 5 years. Meanwhile, in 2024 Dr. Torres applied for \$75,000 research proposal.

### **Department of Marine Sciences**

- Faculty members are constantly encouraged to write and submit as many proposals as they can to bring funds to the DMS to support our students and infrastructure. They are also looking for new sources of funding, including private foundations, private companies, and joining as Co-PIs with local NGOs to increase potential sources of research and academic funding.
- Mou's with CARICOOS and Ecoelectrica were renewed. New MOUs with ISER and DNRA are in progress for the Coral reefs restoration projects. A new MOU with the Puerto Rico Council on Research and the Department of Energy and development for the installation of a photovoltaic system to cover yet electrical needs of the main building (MG831) in Magueyes was developed and is in the legal department for review.



## Department of Mathematical Sciences

Efforts to enhance its budget and academic impact:

- Book Development: The department has taken the initiative to write, proofread, and market textbooks for basic courses, including: MATE 3171: Text and Exercise Manual (Precalculus I), MATE 3172: Text and Exercise Manual (Precalculus II), and MATE 3086: Text (Mathematical Reasoning). This initiative aims to reduce the cost of textbooks for students while generating additional income for the department. The funds will be used to support student, academic, and research initiatives.
- Institute of Mathematical Strengthening (INFOMATE): offers review sessions for the Mathematics Diagnostic Exam, helping students prepare effectively. The institute has become a source of income, which is reinvested into services that enhance teaching, research, and administrative processes.

These strategies reflect the department's dedication to both improving the affordability of educational resources and ensuring continued excellence in its academic and research activities.

## Department of Nursing

- Continuing education courses were offered in flexible formats (face-to-face, modules and distance learning).
- Revenues from continuing education were invested in Meta Oculus virtual reality equipment to strengthen student skills and competencies through simulation.
- The Department of Nursing was recertified as a provider of Continuing Education for health professionals. It received approval from the Board of Professional Nursing, Technicians on Sonography and Xray, Pharmacy and other boards.
- Completed proposal for professional certifications in various areas of interest, for example: cardiovascular, forensic, Public Health. These professional certifications will increase and diversify the department's source of revenue.
- The faculty is providing CEU at hospital sites to facilitate the registration of the courses offered and comply with contractual agreements with affiliated agencies.

## Department of Physics

- External Funds Received: Dr. Armando Rúa to Gordon and Betty Moore Foundation, "Unraveling the switching mechanism in phase-change materials for brain-inspired computing applications": Funds \$1,246,082, PI. Dr. Henri Radovan (NANOGrav collaboration), NSF award #2216793, "NANOGrav@UPRM: Growing and characterizing the NANOGrav gravitational-wave detector": Funds \$520,646 (duration: August 1, 2022 to July 31, 2025), PI. Dr. Sudhir Malik (CMS), NSF, "S2I2: Institute for Research and Innovation in Software for High Energy Physics (IRIS-HEP)": Amount requested \$385,769 (submitted, period: September 1, 2023 to August 31, 2028), PI
- Proposals by Dr. Francisco Bezares (Condensed Matter):
  - NSF MRI with UPR Humacao, "Acquisition of AFM-Confocal Microscope System": Budget \$599,878 (active proposal), Scientific Personnel
  - NSF CAWT IRG2, "Exploration of the Photonic Properties of PVDF for Energy Harvesting and Generation on Advanced Wearable Technologies": Budget \$50,000 (not approved), PI
  - NASA Bridge, "MOCVD Growth of III-N Materials for Quantum Photonic Technologies": Budget \$300,000 (Pre-proposal active, Proposal pending), PI

- NSF EPSCoR E-RISE, "Incubator Center for Monitoring Air Pollution and Respiratory Diseases in Puerto Rico": Budget \$7,500,000 (UPRM \$2,093,038) (not approved), Scientific Personnel
- PRSRT Trust, "Physical Vapor Deposition of Metal Nanoparticles for the Scalable, Cost-effective Fabrication of Novel Nanophotonic Devices": Budget \$70,000 (pending), PI
- Proposal by Dr. Yong Jhin Kim (Materials): NSF SBIR, "Manufacturing and characterization of Room Temperature Ambient Pressure Superconductor": Budget \$275,000 + \$100,000 (cash match from PR Science Trust), PI with subaward to O. Marcelo Suarez.
- Proposal by Dr. Sergiy Lysenko (Materials): Department of Defense, "Transient Dynamics": PI, Sergiy Lysenko

**e. Objective 4: To implement efficient and expedient administrative procedures**

**Department of Chemistry**

- In the week of the administrative staff, an activity was carried out to recognize all the staff with the contributions of the Department faculty members.
- The meetings of the different committees were held in person, hybrid and virtually.
- The administrative staff of the Department of Chemistry continues to take training in the use of technology to carry out administrative procedures, to hold meetings, and to serve students virtually and in person.

**Department of Economics**

- The Office of Legal Affairs of the UPRM reported the following aspects: The Application for Renewal and Declaration of Use for the logo of the Department of Economics, registration number 202816, was filed with the Department of State (Puerto Rico Trademark Office), on February 12, 2019. The logo of the Department of Economics was duly renewed, but as of today, the Logo Renewal Certificate has not been reflected, which has an expiration date of February 6, 2029. For the above, this logo is valid and can be used. As soon as this certificate is received, it will be immediately forwarded to the Department.
- The Department of Economics has a form designed for the faculty personnel in order to report any situation that arises in the areas under the jurisdiction to the Department of Economics. The form is available in the menu of the Department's website entitled About Us under the Faculty submenu at the end of the list of teaching staff information (see <https://www.uprm.edu/economia/facultad/> ).
- The inventory of keys assigned to the Department of Economics was updated, including the keys assigned to the faculty personnel, non-faculty staff and students association.

**Department of Hispanic Studies**

Administrative staff completed a government contracting course from the *Oficina del Controlador* de Puerto Rico. The digitization of student and faculty records is ongoing.

**Department of Humanities**

The Department of Humanities faces significant challenges due to the lack of streamlined administrative procedures and inconsistent document formats. These issues persistently hinder efficiency and promptness in executing administrative tasks. Frequent changes in

document formats often result in documents being submitted and approved, only to be returned later due to format discrepancies that occurred during the processing period. For example, the recent revision of the chronogram chart for semester course offerings necessitated departments to resubmit documents in the new format a year after their initial submission. Additionally, bureaucratic delays caused by excessive signing logs further impede timely task completion. The department has advocated for institutional changes to address these issues, proposing the creation of standardized forms encompassing all required documents and signing logs for processes involving multiple offices. However, implementing such reforms requires collaborative effort beyond the department's scope, underscoring the ongoing challenges in navigating administrative procedures effectively.

### **Department of Kinesiology**

- The department initiated the automatization of some administrative process in order to maintained data analysis. Some of the actions implemented were: 1) accident report previously was in paper changing to a QR code that access immediate to digital report, 2) student can access an academic appointment by checking date and time to meet with the academic coordinator, 3) all students' academic evaluations are available in digital folder in TEAMS, 4) all administrative documents are shared and storage in TEAMS, 5) all academic programs and requirements are available by QR codes for easy access, and 6) faculty and administrative staff share electronic calendar for activities and academic calendars.
- All faculty and staff actively participate in departmental activities such as 5K, Día Mundial de la Actividad Física, Campamento de Artes y Ciencias, School recruitments among others.
- From 2023-24, all personnel (faculty and non-faculty) perform their roles and responsibilities without any administrative compliance.

### **Department of Marine Sciences**

- The department was able hire three new guards this year, completing the needed number to cover the three daily turns 365 days a year. A new janitor was also hired which will help to keep facilities clean and well maintained. The DMS still needs other workers such as a refrigeration technician, small boat fiberglass repair, work on the general maintenance of facilities, small construction projects, maintenance of the boats and docks. A Magueyes supervisor is also essential.
- Two members of our personnel retired this year, both of whom must be replaced quickly because they had essential positions in the DMS. Mrs. Monserrate Casiano, the Student Affairs Officer in charge of all the student's retired this year on May 2024. Jorge D. Ramos "Peje", a Magueyes worker in charge of repairing and maintaining the boats also retired on December 2023.
- The administrative personnel performed extremely well during 2023-24 given the amount of work the DMS has and the few of them. They attended most of the training workshops related to the improvement of the different academic (registration) administrative (sign-request, use of programs,etc.) processes that were provided by the administration during 2023-24.

### **Department of Mathematical Sciences**

- Improvement of the servers and updating of the archives to continue offering the Institute for Mathematical Strengthening (INFOMATE) online. This initiative has had a significant

impact, as it allows users to connect, regardless of where they are. The INFOMATE serves as a support for all students of the RUM, as well as for anyone who wishes to review the content of the topics prior to pre-calculus.

- Improvement of the servers and updating of the files to continue offering the Diagnostic Mathematics Test online, to increase its accessibility to all those new students who score 604 or less on the College Board PAA exam.

### **Department of Nursing**

- The official page of the Department of Nursing is kept updated <https://www.uprm.edu/enfermeria>
- Communication is maintained with alumni, users of the continuing education program, and visitors, through email, Instagram, Facebook, and the website.
- Workshops for administrative secretaries on stress reduction, increased communication skills and teamwork continued to be offered (one per semester).
- Meetings and committees are in person, alternative methods of communication with faculty and active students continue to be through the use of WhatsApp, chats, Meet, and Teams.

### **Department of Social Sciences**

In order to streamline administrative processes and provide updated information about the Department throughout the year, the Department's WEB page continued to be updated on the WordPress platform: <https://www.uprm.edu/cienciassociales/>.

## **f. Objective 5: To strengthen research and competitive creative endeavors**

### **Department of Chemistry**

- During the 2023-2024 academic year, researchers from the Department of Chemistry, for the most part, continued with the development of their research projects and the mentoring of graduate and undergraduate students.
- Thirteen scientific articles were published during this academic year 2023-2024.

### **Department of Economics**

- Dr. Ivonne del C. Díaz Rodríguez: Participated in a collaborative project between UPR, the Department of Agriculture, and UPR Utuado. Collaborating with Dr. Iván Baigés on the Sustainability Engineering (ISOS) program at UPRM. Researching sustainability and circular economy in agrivoltaics at UPR Utuado, involving six UPRM students from various departments.
- Dr. Carlos A. Del Valle González: Co-PI on two research proposals, including an NSF proposal with Civil Engineering professors at UPRM. Presented NICR 3-2 research results and traffic congestion research at various conferences. Appointed to draft the UPRM Infrastructure Master Plan 2024-2034 with additional compensation. Gave a conference on promoting collective transport and micromobility at UPRM.
- Dr. Ricardo R. Fuentes Ramírez: Presented on industrial policy and development strategies at international conferences. Published Volume 11 of the Ceteris Paribus Journal. Engaged in multiple research projects, including technical assistance for national accounts and community resilience planning. Submitted an NSF proposal for climate-resilient communities and authorized to offer services to the Puerto Rico Institute of Statistics until June 30, 2024.

- Dr. Eduardo Kicinski Martín: Panelist in a virtual presentation on Puerto Rico's economic status change, sponsored by the Association of Economists of Puerto Rico.
- Dr. Alberto M. Figueroa: Involved in a proposal for a Research Center for Mobility Equity, submitted to the Department of Federal Transportation.
- Student Alejandro Ouslan Cerritos: Participated in the LEADING Hispanics Symposium and Career Fair at Texas A&M University-Kingsville. Conducting research in Agricultural Economics with Dr. Julio C. Hernández Correa and received research grants. Evaluated for a summer internship at the U.S. Department of Agriculture's Economic Research Service.
- Department Initiatives: *Ceteris Paribus* Journal: Volume 11 published with individual DOIs for articles. The journal is expected to be included in CePa's virtual catalog. Interagency Proposals: UPRM's institutional services were requested by the Department of Economic Development and Commerce of Puerto Rico for technical assistance in data management and operational efficiency. The proposal is under evaluation by the UPRM chancellor's office.

### **Department of Geology**

- New Project: On August 1, 2023, the USGS Landslide Hazards Program funded a \$500k/3-year project titled "Puerto Rico Landslide Hazard Mitigation Project 2023-2026," managed by the PR Landslide Hazard Mitigation Office, with Prof. Stephen Hughes as the PI.
- PR Seismic Network Grant: The PR Seismic Network received a \$334k grant for the tsunami program of PR and a \$192k NOAA contract to support the tsunami center.
- Student Internships: Over 20 undergraduate and graduate students participated in summer research internships in 2023 across various institutions, including universities, agencies, and WAPA-TV's Laboratory of Communication in Meteorology.
- AURUM Research Initiative: Led by Dr. Thomas Hudgins and Dr. Bilenker, this initiative completed its third annual field season, involving students working on the iron deposits of Puerto Rico, forming the basis for an upcoming NSF-funded workshop.
- SLIDES-PR Meeting: On July 27, 2023, SLIDES-PR student assistants met with a community organization in Corcovada (Añasco) to discuss landslide hazards and potential partnerships.
- Field Work at Popocatepetl Volcano: In February 2024, graduate student Jarelys Gonzalez conducted SO<sub>2</sub> gas measurements at Popocatepetl volcano in collaboration with international volcanologists.
- Annual Field Trip: From March 21 to 31, 2023, the Department's annual field trip, led by Profs. Quintero, Hudgins, and Joyce, took students to geologic sites in Texas, including Big Bend National Park and the McDonald Observatory.
- Research Publication: A paper co-authored by department professors and students was published on July 18, 2023, in the *Journal of Sedimentary Research*, resulting from undergraduate research years ago.
- Report Publication: On August 3, 2023, a report co-authored by Prof. Stephen Hughes was published, highlighting social vulnerability to landslides in rural Puerto Rico, funded by the NSF and CDC.
- GSA Conference: Prof. Raiza Quintero presented at the Geological Society of America conference in October 2023 and mentored students on CV writing and career paths.
- Quintero's Manuscript: Prof. Raiza Quintero published a manuscript in *Meteoritics & Planetary Science* on the shocked quartz in sandstone from the Ilkurlka impact structure.

- World Landslide Forum: Prof. Stephen Hughes presented at the World Landslide Forum in Florence, Italy, in November 2023, discussing landslide events in Puerto Rico.
- FEMA Workshop Presentation: On December 8, 2023, Prof. Stephen Hughes presented at a FEMA workshop on land-use strategies for managing landslides and coastal erosion, with participation from graduate students Tania Figueroa and Anishka Ruiz.
- AGU Advances Paper: On January 28, 2024, a paper co-authored by Prof. Stephen Hughes and MS alumnus Kimberly Mendez was accepted for publication in "AGU Advances," focusing on volcanic arc weathering rates.
- Cities on Volcanoes Conference: Prof. Lizzette A. Rodríguez participated in the Cities on Volcanoes 12 conference in February 2024, presenting on the history and offerings of the Latin American Association of Volcanology (ALVO).
- International Geomorphology Week: On March 4, 2024, Prof. Stephen Hughes gave a virtual presentation on advances in landslide hazard science in Puerto Rico for the International Association of Geomorphologists.
- GSA Meeting Presentations: MS students Adriel González Rivera and Anishka Ruiz Perea, and undergraduate student Christian Lugo Matos, presented their research on garnet chemistry and mineralization at the Southeastern GSA meeting in April 2024.
- Graduate Assistantships: The department provided research and teaching assistantships, with 17 TAs totaling ~\$57,912.50 and 14 RAs totaling ~\$82,199.85.

### **Department of Hispanic Studies**

Our faculty members report ten (10) new publications during this academic year. Also, member of our faculty reports about 13 presentations.

### **Department of Humanities**

- The Department of Humanities has undertaken several initiatives to foster research and creative endeavors, positioning itself as a vibrant, multidisciplinary hub. Emphasizing creative output, particularly within the Fine Arts program, the department encourages faculty to actively showcase their artistic work in esteemed venues.
- Exhibitions: Professor Baruch Vergara held his solo exhibition "Lo Múltiple en Uno" in January 2024 at the Gallery of the Liga de Arte de San Juan, funded by the Mellon Foundation. Professor Ramón López Colón presented "Memento Bori" in February 2024 at the Art Gallery UPRM. Professor Claudia Torres Guillemard's artwork is currently on display at the Museum of Art Francisco Oller in Bayamón.
- Research and Funding: The department has significantly enhanced its research initiatives through Mellon Foundation funding, enabling ambitious projects and scholarly pursuits. Graduate research assistants have produced podcasts and interviews with prominent Puerto Rican authors. Dr. Mariam Colón Pizarro is advancing her research on 1940s and 1950s tourism pamphlets of Puerto Rico with Mellon Foundation support. Plans for continued research and creative initiatives include assigning research assistants to faculty across disciplines.
- Collaborative Projects: A research group led by Drs. Melissa Ramos Borges, Elsarís Nuñez, Emilia Quiñones Otal, and Prof. Sabrina Ramos Rubén is working on securing grants for a multi-volume book project on Puerto Rican Art History. In October 2023, **Dr. Emilia Quiñones Otal's** book "Turned Into Sterile Land" was presented at UPRM and is being adapted into an audiobook.
- Residencies and Further Research: Drs. Mariam Colón Pizarro, Melissa Ramos Borges, and Emilia Quiñones Otal have been appointed as Scholars-In-Residence at New York University for research on Puerto Rican Art History and Visual Culture in June 2024.

- **Art Gallery as a Research Hub:** The department's Art Gallery not only showcases artistic expression but also serves as a research hub where creativity and investigation converge. Each exhibition is curated with thematic connections and narratives, often resulting in scholarly essays. Notable exhibition "Resonancia Ancestral" in October 2023 featured works by Bárbara Pérez and marked Janía Martínez's first post-graduate research experience, inspiring her to apply for the Master's Degree program in Cultural and Humanistic Studies.
- These initiatives underscore the Department of Humanities' commitment to nurturing a vibrant creative environment and contributing significantly to the cultural landscape of Puerto Rico and beyond.

### **Department of Kinesiology**

- *Support and essential resources:* The Exercise Physiology Lab and the Force and Strengthen Lab have been modernizing the appearance (lighting, painting) and equipment (technology, software) in order to provide an appropriate research atmosphere. These changes provoke intramural project to work with high performance athlete in kinesiology labs (e.g. Programa METAS).
- *Graduate studies:* The new approved plan III has improved new graduate application for the Kinesiology master program. However, we have promoted graduate studies by 1) maintaining assistantship, 2) higher involvement in research participation, and 3) advanced undergraduate students participate with graduate students in research projects promoting the graduate enrollment.

### **Department of Marine Sciences**

- Even though the DMS has only nine (9) active, full-time professors, eleven (11) research proposals were submitted during this year to Federal agencies (NOAA, ONR, NSF and NASA) for a total of \$10,235,793.01.01 in external research funding. Of these, three were approved with a total funding of \$1,544,411.00.
- Two projects in which DMS faculty are collaborators (co-PIs) with NGO's and the DNRA started in 2023. The largest one (\$ 10,500,000) is entitled "*multi-strategic approaches to scaling-up ecosystem-based restoration to improve coral reef recovery and resilience around Puerto Rico*", will allow the expansion and improvement of the current on-land coral-, sea-urchins and crab cultures, and expanding the outplanting protocols to increase survivorship of the bleaching and disease resistant cultured fragments, to aid in the restoration of impacted coral reefs around Puerto Rico.
- ISER will be the official administrator, with the other collaborators, including the DMS, as subcontractors or participants, for four years (2023-2027). The DMS will benefit by several infrastructural improvements, including a new, more efficient sea-water system with enough seawater pumping and storage capacity to last several days feeding the culture tanks if there is a power failure. Twelve research assistantships/hourly wage contracts will be available (> \$ 120,000 per year for 3 years) for DMS graduate- and BIO undergraduate students, and funds to pay for use of DMS space, boats and dive Page 16 de 21 Department of Marine Sciences Annual Report 2023-2024 facilities, and equipment is also included. The new water system will help other aquaculture projects on Magueyes such as the fish and mangrove, and algae cultures. The fish and mangrove cultures re for academic and outreach purposes. These projects will also provide opportunities for the DMS students to develop research thesis projects. The Maxwell-Hanrahan foundation from San Francisco donated \$15,000 to the DMS to be exclusively used to support field work of the research projects of the Graduate Students of the department. Six students

(two Ph.D and four Ms.C submitted proposals to be evaluated for funding. All six received all the amounts the requested for different aspects of the field work and minor equipment needed.

### **Department of Mathematical Sciences**

In addition to teaching, the RUM must contribute new knowledge, sponsor research on original problems and encourage publications. Our work is manifested through the graduate program, its theses, and the undergraduate program. During this academic year we have 3 approved proposals, 4 approved publications and 1 submitted. Twenty-three (23) conferences, workshops or talks given nationally or internationally. Also, our graduates or undergraduate's students supervised by our faculty work on 11 lectures, workshops, talks or posters.

### **Department of Nursing**

- Agreements with Rutgers University School of Nursing to continue a faculty project on Clinical preceptorship and leadership with affiliated agencies.
- A faculty member of the Department of Nursing, Dr. Gloribell Ortiz, was appointed as the Associate Dean of Students.
- Dra. Sheila Mercado presents at the Sigma Theta Tau, International Biennial Convention in San Antonio Texas.
- Dr. Miriam Nieto, Dra. Abigail Matos, Prof. Sandra Zapata and Kevin Torres Serrano presented at the Scientific Convention of the American College of Cardiology Puerto Rico in San Juan PR. Team Cardiovascular Section.
- Dra. Abigail Matos, and Dra. Miriam Nieto were invited by the University of Valencia, Spain to collaborate with the second edition of the book "Enfermeras invisibles". A chapter of the book will highlight the contributions of one of our faculty members as *Interpres mortis et moriendis*.
- Our Skill Lab Nurse, Kevin Torres, was certified as Cardiovascular Medicine and Board certified as Cardiovascular Nurse by the AACN.
- Prof. Sandra Zapata was certified as Doula of the dying by the University of Vermont. She continues to be a community consultant for the dying person, and family receiving praise for her excellent job from the family members.
- The faculty of the Department of Nursing embarked in a deep literature and evidence-based search to complete call courses for the master's in science of nursing proposal which was completed by Prof. Sandra Zapata Casiano as part of a mandate from Arts & Sciences.
- The Department of Nursing will participate in the Toyota mobility challenge 2024 with a health mobility prototype.

### **Department of Physics**

- Nine (9) proposals submitted and 1 approved. Another 5 ongoing research and creative work projects, and 4 research collaboration agreements.
- Initiatives to involve students in research and creative work projects:
  - Student-Driven Internship Opportunities in the Atmospheric Sciences: Breaking Barriers to Diversity, Inclusion, and Equal Access – Dr. Héctor Jiménez
  - NANOGrav at UPRM: Growing and characterizing the NANOGrav gravitational-wave detector – Henri Radovan, PhD



- “Laboratorio de Comunicación Científica” between NotiCentro -WAPA TV and Meteorology Program” – Jomar López Molina, an Atmospheric Sciences and Meteorology’s Curricular Sequence student participated as intern in WAPA TV during Spring Semester 2023-2024.

### **Department of Social Sciences**

- Interdisciplinary Center for Coastal Studies / Centro Interdisciplinario de Estudios del Litoral (CIEL) is currently reviewing its structure to incorporate new faculty and collaborators. CIEL incorporates students from many fields into research endeavors. We provide mentorship and training and, as stated in this report, provide them with opportunities to collaborate as research assistants and co-authors of key publications. We are in the process of editing and layout of 5 additional publications. They are expected to be published during the semester from August to December 2024. A project website is being developed, which is expected to be published during the semester from August to December 2024.
- Project 1867: Disasters and Memory in Puerto Rico ([www.proyecto1897.com](http://www.proyecto1897.com))
- The book **Disastrous Tales** (Cuentos desastrosos), a compilation of seven (7) stories written by undergraduate students of the Department of Comparative Literature of the UPRM, was published. The stories narrate events and experiences that took place in the Puerto Rican archipelago: hurricanes, earthquakes, and pandemic. Through realistic, autobiographical and historical stories with magical elements, the authors address the colonial, political, economic, social and human context in which disasters occur and that largely cause their outcomes. A collaboration was established with Fundación Puertorriqueña de las Humanidades Puerto Rico, who provided funds for the edition and printing of the book.
- **Population Dynamics of Puerto Rico’s Municipalities: 2010 to 2020** provides data and information about population and vital statistics at the municipal level over the past decade through maps and municipal profiles. The work is the result is co-authored by Tania López Marrero and Adlín Melecio Torres (undergraduate student of the Sociology Program). The publication is part of the series on population dynamics in Puerto Rico and updates the information presented in two previous works:
- Population Dynamics of the Coastal Municipalities of Puerto Rico: 1980 to 2015 and Population Dynamics of the Interior Municipalities of Puerto Rico: 1980 to 2017. It arises from a collaboration between CIEL and the Sea Grant Program of the University of Puerto Rico.

### **g. Objective 6: To impact our Puerto Rican society**

#### **Department of Chemistry**

- Welcome to new graduate students – August 4, 2023 and January 9, 2024.
- The university held the Open House in October 2023.
- During the summer of 2023, The College of Arts and Sciences camp was carry out for high school students. The chemistry department had the participation of associations, staff, professors and graduate’s students.

#### **Department of Economics**

- Dr. Ivonne del C. Díaz Rodríguez, professor, participated in several community initiatives: Speaker at the Discussion: Climate Change: Planning, Reflections and Recommendations for the Region, organized by the Women Economic Forum of the Caribbean, Honeywell

Aerospace, Aguadilla, November 16, 2023. Participation in the Environment and Economy Panel, Annual Assembly of the Association of Economists of Puerto Rico; and participation in the presentation of the book "Economy by Disasters and Development: Voices of Economists in Puerto Rico", October 27, 2023. Talk on economics and sustainability, offered to students of the INTD 3990 (Creating a Sustainable World) course taught by Dr. Christopher Papadopoulos, September 2023, as part of the National Science Foundation's proposal activities. Initiatives to promote student participation in community projects: A student of industrial engineering, who is also pursuing a second bachelor's degree in economics, was selected to participate in the project. Dr. Ricardo R. Fuentes Ramírez, assistant professor, served as vice president of the Association of Economists of Puerto Rico from August to September; and as president from October onwards. Also, in the Comprehensive Community Resilience Planning Program, Phase 2 of the project has been carried out, where the secondary data related to resilience available to the seven (7) participating communities from various official sources has been collected, and the methodology for collecting primary data is discussed with the community. In the NPO-SIDED Program, the Economic Impact Calculator was updated with the latest data from the Bureau of Labor Statistics and the Planning Board.

- Dr. Jeffry Valentín Mari, professor, organized the conference entitled The Policies of the Fiscal Oversight Board and its Results offered by Mr. Daniel Santamaria Ots, Economist and Director of Research at Espacios Abiertos (<https://espaciosabiertos.org/sobre-nosotros/>). Date: Thursday, March 21, 2024 at 10:30 am in the Nursing Amphitheater.
- The Department of Economics offered the conference entitled BRETIX: History and Lessons for Puerto Rico, by Dr. Carlos Vargas Silva, economist and director of the Center on Migration, Politics and Society (COMPAS) at the University of Oxford in the United Kingdom.
- The seventh edition of the Economic Sciences Week was organized on October 24 and 26, 2023.
- Consulting and research activity occurring in this academic year: Dr. José I. Alameda Lozada: Consultant to the Secretary of Justice of Puerto Rico (received consent from the Rector of the UPRM). Consultant to the Office of the Mayor of the Municipality of Mayagüez. (Received consent from the UPRM Rector).
- Dr. Ricardo R. Fuentes Ramírez: Project: Nonprofit Strengthening Initiative for Economic Development (NPO-SIED) with Dr. David Santiago Rosado (PI) from the College of Business Administration. Project: Community Resilience Planning with seven communities in Puerto Rico (Community Resilience Planning). Sponsored by the Department of Housing (CDBG-DR) with Dr. Luisa Seijo (PI) from the Department of Social Sciences.
- Dr. Ricardo R. Fuentes Ramírez submitted a proposal to the National Science Foundation (NSF24-534) as principal investigator. The NSF's proposal seeks to build climate-resilient communities and bridge the gap between essential resources and services and community needs. Also, he was authorized under Act No. 100 to offer professional service to the Puerto Rico Institute of Statistics until June 30, 2024. He will lead the final phases of the Traveler Survey project.

### **Department of Geology**

- Cancer Awareness Campaign: Profs. Raiza Quintero and Thomas Hudgins partnered with the American Cancer Association of Puerto Rico. Master's student Anishka Ruiz Perea helped raise awareness about breast cancer screening through a video explaining the geology of Las Tetas de Cayey, which garnered over 5,000 views and media coverage.

- **LandslideReady Program:** On March 1, 2024, Prof. Stephen Hughes and graduate students Anishka Ruiz and Tania Figueroa met with Utuado officials to discuss the "LandslideReady" pilot program, aimed at training local staff and community leaders on landslide hazards.
- **SLIDES-PR Presentations:**
  - Sept 7, 2023: Graduate students Anishka Ruiz and Tania Figueroa, and undergraduate Astrid Romero presented to 8-11 year olds at Escuela Rafael Rexach Dueño in Río Grande.
  - Feb 2, 2024: Anishka Ruiz and Tania Figueroa presented on geology and landslides to 2nd and 3rd graders at Academia San Sebastián Mártir.
  - Mar 8, 2024: Prof. Stephen Hughes and graduate students Anishka Ruiz and Tania Figueroa presented on earth science and landslides to second graders at SESO school in Mayagüez.
- **Community Engagement:**
  - July 19, 2023: MS student Desiree Bayouth and Luis Rodriguez Cruz presented on landslide vulnerability at a risk communication conference in San Juan.
  - July 27, 2023: SLIDES-PR students Anishka Ruiz, Danishka Medina, and Astrid Romero met with a community organization in Corcovada about landslide hazards.
  - Aug 28, 2023: Anishka Ruiz and Tania Figueroa were interviewed for the Repaso Noticioso podcast about SLIDES-PR.
- **Public Events:**
  - Sept 23, 2023: SLIDES-PR students participated in National Public Lands Day at El Yunque, sharing educational materials on landslides.
  - Sept 25, 2023: Repaso Noticioso aired an episode featuring Anishka Ruiz and Tania Figueroa discussing SLIDES-PR.
- **Media and Conferences:**
  - Oct 15, 2023: Prof. Stephen Hughes was featured in El Nuevo Dia's cover story on landslide vulnerability in Puerto Rico.
  - Nov 3, 2023: Prof. Raiza Quintero presented on planetary geology at the Círculo Astrofísico de Puerto Rico.
  - Nov 16, 2023: Prof. Hughes presented on landslide events at a FEMA Higher-Education Roundtable at the University of New York Albany.
  - Dec 8, 2023: Prof. Hughes presented at a FEMA workshop in Dorado on land use strategies for managing landslides and climate change impacts, with graduate students Tania Figueroa and Anishka Ruiz also participating.
  - Jan 24-25, 2024: Prof. Hughes co-organized a conference at UPR Medical Sciences campus with NOAA and PR Emergency Management Agency, focusing on climate change impacts.

### **Department of Hispanic Studies**

A free creative writing and film workshop was provided for high school and university students, with participants from across the island. Surrounding schools, the general community, and the university community were invited to a conversation with distinguished writer Esmeralda Santiago during la Semana de la Lengua. Over 300 people, including teachers, alumni, and high school students, participated in these events.

### **Department of Humanities**

- Students and graduates of the Department of Humanities are deeply committed to serving their community, a cornerstone of our educational mission. While bachelor's degrees from

our department are sometimes undervalued in terms of immediate economic utility in today's capitalist neoliberal framework, they play a crucial role in shaping societal perspectives and fostering critical thinking. Our graduates make significant contributions by challenging conventional norms, exploring human relationships, questioning identities and existence, interpreting art, and investigating history.

- Our faculty has developed relationships with multiple organizations to impact our Puerto Rican society during this academic year. In March 2024, Drs. Carlo Sabariz and Sara Gavrell initiated a collaboration with the Colegio de Ingenieros in Mayagüez to introduce Ethics courses and seminars tailored for engineers in western Puerto Rico.

### **Department of Kinesiology**

- Our department has more than 8 different kinesiology specialists that work within the community. Some of the professionals providing services to the university community: 1) sport and exercise psychologist (E. Rodríguez) provided formal and informal mentoring to student-athletes and coaches presentations (microaggression in sport, 2023), 2) departments developed weekly recreational activity program for collegiate students, 3) the program "Exercise is Medicine" promotes physical activity on campus, in which the program received third place for impacting campus with 5K and Mascot Challenge.
- We have 3 regular community programs impacting three different population: 1) Prime time games impact population with some type of disabilities, 2) Wellness Pediatric Program impact youth and their families and 3) Physical activity in elderly impacted two Mayaguez nursing home. In all community programs students are actively involved creating exercise activities and collecting data. In summer, students were able to participate with Special Olympics and Boys and Girls club or participate with an internship evaluating high performance athletes. All these opportunities are aligned with undergraduate academic curricula. During academic semester, some courses provide hands on experience within the community such as: EDFI 4000 (projects that impact society thorough recreation or physical activity activities), all coaching courses impact youth population within sport settings (EDFI3095, EDFI4195, EDFI3615, EDFI4065, EDFI3095, EDFI3075, EDFI3620, EDFI 4075), seminar and practicum in physical education, and adapted courses provide experience to impact special population (EDFI 3098, EDFI 3380, EDFI3395, EDFI4016, EDFI4017).
- In the past few years, kinesiology students increased participation in leadership position at the university (example, Consejo de estudiantes) and have created new associations. In addition, students actively participate in departamental activities such as 5K, Día mundial de la salud, annual conferences, triathlon, among others.

### **Department of Marine Sciences**

- The department has increased its outreach and community service activities thanks to the help and assistance of professors and administrative personnel, and the initiatives of AECIMA, the student organization and our local collaborators. One major accomplishment was the involvement of the DMS in the development of a high school marine science "program" for the new Montessori School Alejandro Tapia Rivera in the community of La Parguera. The DMS, the school principal, the San Juan headquarters and Mr. Efrain Figueroa and the Sea Grant program and CARICOOS are collaborating with this project. The DMS has provided information, materials, talks and logistical support for several visits of the students to our lab facilities, especially during the summer camps. This is an important collaboration because we are training and motivating the future graduate students of the department, and the community leaders to protect our marine natural

resources. Recently, DMS collaborated with a series of workshops on coastal marine ecosystems and environmental and scientific photo-journalism for the school during June of 2024 lead by Mr. E. Figueroa.

- The DMS has strengthened the collaboration with the Department of Natural Resources. During the last year we have had meetings and discussion about the critical situation of the La Parguera Natural Reserve (LPNR) due to the combination of stressful conditions linked to climate change (high temperatures, storms, diseases and bleaching) and the direct impact of human activities through the uncontrolled tourism activities. The LPNR has become a tourist nightmare due to the lack of law reinforcement and the ignorance of the users. The DNRA and the DMS are now working closely to increase the environmental education levels of the users, establish usage regulations to ameliorate the human impact (Noise control, speed limits in manatee areas, night lighting, carrying capacity in some highly visited localities, etc.) while we finish the Management plan for the reserve.
- The DMS has a couple of projects dealing with the influx of the floating seaweed Sargassum, which has increased significantly every year since 2016. The idea is to use the results of these studies to forecast the arrival of the big floating rafts and plan how to prevent the accumulation of the seaweed in areas where it can produce extensive mortalities due to the lack of oxygen during decomposition.

### **Department of Mathematical Sciences**

- **Education and Workforce Development:** Strengthening the Math Department helps students develop critical thinking, problem-solving, and quantitative skills, essential for STEM careers. Notable initiatives include:
  - Puerto Rico Mathematical Olympiads (OMPR): Directed by Dr. Luis F. Cáceres and Dr. Arturo Portnoy, this project supports students from grades 3 to 11 through academies and camps, preparing them for national and international math competitions.
  - Institute for Mathematical Strengthening (INFOMATE): Offers intensive reviews for students scoring below 50% on the Math Diagnostic Test and for high school students and professionals needing math refreshers.
- **Community Engagement:** The department engages with communities through outreach, workshops, and collaborative projects to promote math literacy and STEM education. Activities include participating in College Board Committees, giving math lectures in schools, coaching and judging Olympiads, and serving as Science Fair judges.
- **Social Impact Projects:** The department addresses societal challenges like poverty and inequality using mathematical modeling, data analysis, and predictive analytics to create innovative solutions.

### **Department of Nursing**

- The faculty of Nursing continues to participate in health fairs, conferences and educative activities for the community related to cardiovascular health, forensic nursing, maternal and child health and mental health.
- The faculty of Nursing and students are offering community presentations to elderly homes and agencies related to health care.
- Dr. Sheila Mercado is providing orientation in public policy projects and other Senate proposals that impact the profession of nursing.

### **Department of Physics**

On October 14th 2023, the Department of Physics with PR NASA Space Grant Program, organized the activity *“Eclipse Solar Parcial 2023 – En familia”*. The Physics’ student organizations: “Society of Physics Students” (SPS), “Sociedad Meteorológica de Puerto Rico” (SMPR) and “Students for the Exploration and Development of Space” (SEDS) and various projects from Engineering participated in the activity. As part of the activity, we had various talks, including one by Dr. Juan G. González Lagoa, UPRM Emeritus Professor and the “Sociedad de Astronomía del Caribe” brought some telescopes to watch the eclipse. We received students and persons from general community.

### **Department of Social Sciences**

- The faculty of the UPRM Department of Social Sciences is proud to our graduate of the Political Science Program, Lcdo. Orlandy Cabrera Valentín, who was recognized for his performance as Assistant Attorney General of the Year. I must highlight that Atty. Cabrera was always a distinguished student for his academic performance, his work ethic, his social commitment and vocation to serve the country. Abundant blessings Lcdo. Cabrera, I am proud of the achievement he has achieved. I invite you to continue demonstrating his commitment to the country.
- During June 5, 6 and 7, 2024, the Department of Social Sciences carried out its summer camp called: Multiverse of opportunities in the Social Sciences. There was the collaboration of Professors, the Association of Political Science Students and Administrative Staff of our department. The common denominator of all those who collaborated in this day of hard work was their high level of commitment to what our Department represents.

#### **h. Objective 7: To strengthen school spirit, pride, and identity**

### **Department of Chemistry**

- In the 2023-2024 academic year, 65 new graduate students were accepted. On the other hand, 30 students completed their B.S. degree in Chemistry, 4 completed their MS degree in Chemistry, and 4 students completed their Ph.D. degree in Applied Chemistry.
- Amended exit assessment forms for students who are candidates for graduation so that they can evaluate the administrative, academic and infrastructural matters of the department.
- The ACS, also participated in the Chemistry Festival held in San Juan, PR, during the month of April. This was during the celebration of National Chemistry Week. The purpose of this festival is to impact the community of the Island and share the knowledge of Chemistry through experiments, demonstrations and other practical activities of a chemistry scientific nature.
- The ACS held a fraternization (Chem-off), part of one of the activities was to prepare a "crime scene" in which the members of the association had to observe and solve.

### **Department of Economics**

- Dr. Jeffry Valentín Mari informed that the economics’ student Alejandro Ouslan Cerritos and Alexi Wu He applied to participate in the 2024 American Economic Association (AEA) Summer Program.
- The Department of Economics has a total of eleven (11) students who were selected to the 2022-2023 Honor Roll of the College of Arts and Sciences of the University of Puerto

Rico, Mayagüez Campus. The Department honored these outstanding students, along with the 12 graduation candidates, including the student selected (Raul O. Rodríguez Pagán) to receive the Dr. Sir. Williams Arthur Lewis Departmental Award, on Thursday, April 18, 2024 in room SH-309A beginning at 10:30 a.m. In this activity, special recognition was given to the student Alejandro Ouslan Cerritos for his performance in the area of undergraduate research in economics.

- Student Alejandro Ouslan Cerritos participated on February 12 and 13, 2024 in the LEADING Hispanics Symposium and Career Fair held at Texas AM University-Kingsville, TX. In addition, he continues to conduct research in the area of Agricultural Economics with Dr. Julio C. Hernández Correa in the Project An Agriculture Production Function for Puerto Rico (received a \$5,000 grant 1st week 23-24). He is currently being evaluated for a summer internship at the U.S. Department of Agriculture's Economic Research Service (ERS). In addition, he received a grant (\$5,000 2nd week 23-24) from the Leading Hispanics to Federal Agency Employment funds from the USDA-NIFA-Next Gen, the researcher in charge is Dr. Esbal Jiménez Cabán of the Faculty of Agricultural Sciences.
- Dr. Carlos A. del Valle González, Associate Professor of the Department of Economics and Dr. Alberto M. Figueroa, Professor of the Department of Civil Engineering and Surveying, participates in a proposal entitled Research Center for Mobility Equity, submitted to the Department of Federal Transportation. The proposal would involve Dr. del Valle's participation for two years and is a collaboration with Southern Illinois University Edwardsville.
- Dr. Carlos A. del Valle González, Associate Professor of the Department of Economics was appointed by the Rector (January 17, 2024) to carry out the special task of preparing and drafting the UPRM Infrastructure Master Plan 2024-2034. It entails an additional compensation of three (3) credits.
- Dr. Ricardo R. Fuentes Ramírez, Assistant Professor, participated in the 50th Annual Conference of the Eastern Economic Association in Boston, Massachusetts. 29 Feb. – 3 March 2024. Session 127. The Global South and the Political Economy of Domination and Dependency II Session #14 Sponsored by The Union for Radical Political Economics (URPE) Saturday | 11:00 am-12:20 pm | Fairfax A The Stricken Economy of Puerto Rico: What Comes after Climate Disasters, Fiscal Control Boards, and Forced Migration? Ricardo R. Fuentes-Ramírez, University of Puerto Rico-Mayagüez. Economics students, Alejandro Ouslan Cerrito participated in two summer internships. He was selected by the American Economic Association to participate this summer (2024) in the AEA Summer Training Program and Scholarship Program to be held at Howard University, Washington, DC. He is the third student of the Department to be chosen to participate in this internship. He was also selected to participate in the U.S. Department of Agriculture's (USDA) Economic Research Service (ERS) summer internship.
- Economics students, Alexi Wu He and Feliz Arostegui Saavedra won First and Second place respectively in the research projects competition in the 4th Edition of the Applied Economics Congress sponsored by the Department of Agricultural Economics and Rural Sociology.
- The student Adrián E. Figueroa Acevedo graduates from the baccalaureate of Mechanical Engineering and Economics (graduation June 2024).
- The faculty personnel and students of the Department of Economics participated in the 2024 UPRM Open House.
- A total of eleven students completed their bachelor degree in economics. The student Raul O. Rodríguez Pagán was awarded with the Sr. Dr. William Arthur Lewis Award as the best economics student at the graduation ceremony held June, 20, 2024.

### **Department of Geology**

- Initiation of new members of the Student Geological Society, on September 26, 2023.
- The UPRM Open House took place on November 10 at the Plazita de Celis. The students of the Student Geological Society helped in planning our table and helped in the event.
- The Symposium of Geology took place on the week of April 15, and celebrated the 40th Anniversary of the Student Geological Society. The SGE organized the event, with the support mainly of Prof. Raiza Quintero and our administrative official Marsha Irizarry. Oral presentations took place in the Sala Eugene Francis on April 15 and 16, with presentations from several faculty members (Lizzette A. Rodríguez, Wilson Ramírez, Raiza Quintero, Stephen Hughes) and invited speakers from UPRM and other campuses or agencies, including 2 alumni (Kevián Pérez and Edil Sepúlveda). About 30 posters from undergraduate and graduate students were presented on April 15 and 16.

### **Department of Hispanic Studies**

An achievement day was held to recognize honor roll students. A campaign was launched to maintain and strengthen connections with department alumni. An alumni mailing list was created to keep in touch and invite them to departmental events.

### **Department of Humanities**

During the academic year 2023-2024, the Department of Humanities at UPRM engaged in a diverse array of activities aimed at enhancing student engagement and honoring faculty achievements. Key initiatives included a comprehensive orientation panel for incoming students, where each program provided valuable insights into academic pathways and effective time management strategies. The department also celebrated the academic achievements of honor students from the year 2022-2023 with a commemorative event held at Salón Tarzán in April 2024. Additionally, faculty members organized a heartfelt farewell event in May 2024 to bid farewell to two retiring colleagues, underscoring their invaluable contributions to the department. Looking ahead, plans are underway to host dedicated events for graduating students, ensuring continued support and recognition within the academic community.

### **Department of Kinesiology**

- The department promote students association and active participation through different community activities. Currently, we have the main students' association (Kinesiology student association, Mentor M. Colón) that have various chapters: sport psychology association (Mentor E. Rodríguez) and exercise is medicine (Mentor C. Torres), Surfing association (Mentor I. Cordero), and Ultimate Association (Mentor, C. Quiñones). As interdisciplinary program, our students are unified with other academic programs such as Biology with the Quiropractic Association.
- Our department has increased the number of students participating in recreational sport activities (ultimate, volleyball, basketball, pickleball). In August 2023 we began to open facilities/space and provide equipment to students to promote physical activity, decrease stress, increase students' social bonding and social support (participation approximately 20-30 students). In April 2024 this effective initiative multiplies the number of students participation using recreational physical activities (approximately 60-90 students).
- The Department collaborated in two different activities with athletes' alumni: annual convention (2023) and 100 miles bike run (2024).



- Our department maintained healthy relations with other academic programs and their academic services. In the Department, we provided new space for students to gather and study.

### **Department of Marine Sciences**

The DMS has one student organization, AECIMA, which has been doing excellent work with community services and training, tours of our facilities, talks, organizing the DMS annual Scientific Symposium, workshops, and organizing open houses in the department, music nights and beach cleaning activities. Also, AECIMA participates in the promoting activities of the DMS in other institutions around Puerto Rico.

### **Department of Mathematics**

We will actively engage with local communities through outreach programs, educational initiatives, and collaborative partnerships. By promoting math literacy, STEM education, and social impact projects, we will empower individuals and promote positive change throughout Puerto Rican society. Examples are OMPR, OiPR, COMATEQ, and Copa Eugene Francis.

### **Department of Nursing**

The committee of promotion and recruitment continues visiting high schools in the western area of PR to promote the nursing program to interested students. The Department of Nursing and its faculty actively participate in UPRM activities where the school pride is enhanced.

### **Department of Physics**

- Society of Physics Students UPRM Chapter: The UPRM SPS chapter had most of its activities on campus. We held general assemblies, game nights, study nights, special topics meetings, fundraising activities, and more.
- Women in Physics UPRM: Had the opportunity to participate in the *APS Conference for Undergraduate Women in Physics (CUWiP)*, which consisted in three-day regional conferences for undergraduate students, generally focusing on research and opportunities in different areas within physics such as astronomy, meteorology, and medical physics. This year, the conference was held from January 19 to 21, 2024 in South Carolina, specifically in Clemson. During the event, two of our members, Astrid Reyes and Caryelis Bayona, took first and second place respectively in the poster presentations.
- Student Chapter affiliated to American Meteorological Society (AMS): In the past year, the Sociedad Meteorológica de Puerto Rico (SMPR) has focused on professional growth and public engagement. Key activities included: Hurricane Awareness Tour: In September 2023, SMPR collaborated with the EcoExploratorio: Puerto Rico Science Museum to educate the public on tropical cyclones and related warning products. Solar Eclipse Observation: In October 2023, SMPR partnered with various organizations for a solar eclipse observation event, presenting atmospheric sciences through demonstrations. Hurricane Hunter Plane: SMPR welcomed the Hurricane Hunter plane in Aguadilla, highlighting the significance of hurricanes through public demonstrations.

### **Department of Social Sciences**

Dr. Luisa Seijo Maldonado has been recognized with the degree of Honoris Causa Doctorate. Our colleague is a bulwark in our institution, as demonstrated by her

performance throughout her academic and administrative career in the Siempre Vivas Programs and the University Institute for the Development of Communities. We cannot overlook her commitment, her fervor, her sensitivity, her vocation for service, her dedication, her academic contributions, her activism and her community transformation. We must also highlight the hundreds of students and teachers that she has managed to inspire through her continuous fight for service to those who are vulnerable. When Luisa Seijo Maldonado's name is mentioned, she is associated with commitment and consistency in exemplifying her vocation. She is a colleague, friend and passionate about her convictions, this achievement is well deserved.