

*University of Puerto Rico
Mayagüez Campus
Arts and Science College*

Annual Report 2022-2023

*Prepared by:
Michelle Pérez Pérez*

*Revised and edited by:
Fernando Gilbes Santaella*

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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 2022-2023 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/), 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 appraisal. 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 ACEN re-accreditation process for the Bachelor of Science in Nursing was successfully completed and the program was accredited for eight more years. It is also important to highlight the efforts made to improve academic offer and faculty recruitment. Regarding the objective of guaranteeing the best education to 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. A new academic program, Master of Arts in English Literatures (MAEL) was approved. 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. 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 to continue incorporating signature collection processes through the SignRequest platform. This has greatly reduced the volume of paper, resulting in savings. 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, 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 Seismic Network, 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. International activity was also present in our efforts through collaborative agreements, internships, participation of students and professors in symposia, workshops and congresses, among others. A large community of international students and faculty is also part of our programs. 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. Misión

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.

C. To institutionalize a culture of strategic planning and assessment

Department of Biology

Historically, assessment in the Department of Biology has been conducted by a departmental committee, by individual faculty members, and by PIs of projects that included an assessment component. There are no assessment results that can be presented for the 2022–2023 academic year. The current plan is to institutionalize the process of assessment by incorporating an initial placement exam into one, or both, of the General Biology courses. These courses are taken by all first-year students. The burden of administrating this placement exam will be borne by the course coordinators and the graduate teaching assistants. However, administering the exam in Moodle will take advantage of the efficiencies that are now possible. A second, or third, data point will be obtained by administering the same exam to students during their last year of studies, such as in the required Seminar course.

Department of Economics

- Dr. Carlos del Valle-Gonzalez, associate professor, presides over the efforts of the College of Arts and Sciences on the Strategic Planning Committee. Among its responsibilities includes the update and preparation of the new Faculty Strategic Plan.
- At faculty level, Dr. Ricardo R. Fuentes-Ramirez, assistant professor and member of the Assessment Committee, informed that the *Revista de Avalúo Plus: Revista de Avalúo del*

Aprendizaje was established. The journal will be available online under a Creative Commons license, and also a print version will be available by the *Centro de Publicaciones Académicas (CePA)* of the College of Arts and Sciences. The journal is a platform for the dissemination of the work related to the academic appraisal process. Dr. Fuentes-Ramirez is also member of the Editorial Board of the journal.

- The Assessment Committee of the Department carried out a questionnaire was developed and distributed by email to the students of the department (on February 24, 2023), and on February 28, 2023, a focus group was organized for 4th year students enrolled in ECON 4392: Research Methods in Economics II. The questionnaires were approved by the Committee on the Protection of Human Subjects in Research (CPSHI/IRB) on February 21, 2023 (Protocol No. 2023020015). The final report entitled Evaluation of the Alignment of Economics Courses and Departmental Objectives was presented and approved at the Departmental meeting on Thursday, March 9, 2023.
- Information about a workshop titled: "Academic Appraisal and the Design of Questions According to the Cognitive Levels of Bloom's Taxonomy" was distributed to the Department of Economics faculty staff. The workshop resource was Dr. Diana Rodríguez, Appraisal Coordinator of the Department of Kinesiology. The workshop took place on November 17, 2022 at Celis 302.
- The results of the academic orientation questionnaire corresponding to the second semester of the academic year 2021-2022 were presented at the fourth departmental meeting on Thursday, December 1, 2022. The questionnaire is design to collect the student's perception about the academic counseling services at the Department of Economics. The questionnaire is available at the following link <https://www.uprm.edu/economia/evaluacion-consejeria-academica/>
- 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 5, 2022, was presented and discussed at the 1st regular Departmental meeting held on Thursday, August 18, 2022.
- The itinerary of assessments workshops organized by the Assessments Committee of the Faculty of Arts and Sciences were distributed among the teaching staff of the Department of Economics (October 26, 2023).

Department of English

- The Department Strategic Committee was constituted but no work was reported.
- All processes were completed by June 30, 2023, for a new hire in Modern Poetry due to Dr. Chotts' demise in September. Dr. María Del C. Quintero signed to begin on July 1, 2023.

Department of Humanities

- The Department has continued to implement its regular strategic planning and assessment policies, both on its own initiative and at the request of the Dean of Arts and Sciences, Academic Affairs, and the Rector's Office. These works are carried out, fundamentally, by the Assessment Representative to the Assessment Committee of the Faculty of Arts and Sciences, the Program Sections and the Directorate of the Department.
 - We performed the following activities: Survey for Newly Enrolled Students and Exit Survey for Graduating Students from our Department. In addition, a Freshman Survey was developed to find out the needs, academic difficulties and evaluation of the services offered to the students of the departmental programs during their first year, as part of the general initiative of the UPRM of the First Year Experience.
- Improvement of the Departmental Assessment Online Portal Project description: A

department web page was developed where you can consult our assessment reports and plans. There is also access to interviews, surveys, and other assessment instruments from our department.

Department of Kinesiology

- Our Assessment Committee remains active and we have been able to use the results of our annual evaluations to implement new administrative and educational alternatives. Likewise, we have an expert adviser (Dr. Diana Rodriguez) helping with department assessment.
- The Department of Kinesiology has conducted various evaluations in the administrative area and the student learning process in the past five years. The assessment of our students' learning resulted in changes in the several training courses. Increase the emphasis on Training Planning in the Coaching courses EDFI 3095 (Coaching Basketball); EDFI 3615 (Coaching Swimming); EDFI 4055 (Coaching Volleyball); EDFI 4065 (Coaching Soccer); EDFI 4075 (Coaching Baseball and Softball) and in EDFI 4177 (Exercise Physiology); EDFI 4190 (Exercise Prescription) and EDFI 4250 (Training Seminar).
- Currently, we are working in the development of a new Training Methods course.
- A new course to increase students' understanding of the different academic discipline related to kinesiology (Introduction to Kinesiology).
- Another new course, Anatomy and Applied Kinesiology in which the course strengthens our undergraduate programs.

Department of Marine Sciences

- The valuation committee of DMS is developing an assessment protocol and metrics to evaluate the status (i.e. full or partial completion) of the different objectives in our strategic plan. However, we consider that various important metrics (number of graduates, number of peer-reviewed publications, number of approved proposals and total amount of external funding awarded, number of applications to the program, etc.) are good indicators and valuable components of this process, and we use them as a measurement of improvement (or not) and success.
- Two new courses were submitted for approval to complement our curriculum, course # CMOQ-6008 "Open Data Science in Chemical Oceanography" and CIMA-6007 "Professional Ethics in the Oceanic Sciences" were recently approved (certification # 23-22 and 23-13 respectively).
- A new program "Professional Masters in Marine Sciences" with two plans (Plan II and Plan III) is in the final steps of the approval process. The two new plans were designed to provide a more general education in marine sciences adaptable to more flexible professional demands to attract students with more extensive preparations. The DCM benefits from a greater demand for admissions to the Department (30% increase in applications the first semester offered), a reduction in graduation time, an increase in the graduation rate, and an increase in collaborations between departments and with the private industry in general. This program does not require a master's thesis, which makes it attractive to students who do not want, or cannot develop a research project to graduate.

Department of Nursing

- The nursing program completed its self-study report to the Accrediting Commission for Education in Nursing.
- The reaccreditation of the Department of Nursing was postponed by ACEN due to the Pandemic and rescheduled for November 1-3, 2022. The Department of Nursing updated its self-study up to 2022.

- The Department Evaluation Committee carried out all the evaluations of courses, competencies, 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 was worked on, and a committee was established.
- The expected results of the courses and the perspective program are maintained with the design of the syllabi and significant changes in the provision of health services and academic programs.
- The Curriculum Committee established its plan to accelerate curricular work on certifications and credit reduction.
- The Evaluation Committee completed all courses evaluations for 2022-2023, affiliated agencies evaluation, satisfaction with the program of graduating students' evaluation and a pilot to measure outcomes of Student learning outcomes by levels of competencies.
- The Personnel Committee completed the formative evaluations of contract faculty and the peer evaluation on class performance.

Department of Physics

- The Strategic Plan of the Physics Department can be found on the website of the Mayagüez University Campus at the address <https://www.uprm.edu/arci/planificacion-estrategica/>. During the academic year 2022-23, 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 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.
- In the same way, a database of the Social Sciences program is maintained by our students. 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.
- Dr. Luis Nieves Rosa chairs the Curriculum Committee of the Faculty of Arts and Sciences. This year there were revisions in the curriculum of the General Social Sciences program and in the Sociology program.

D. To lead higher education throughout Puerto Rico while guaranteeing the best education for our students

Department of Biology

The Ecology course offered by the UPR-M Department of Biology is the only course in the UPR system that does not contain a laboratory component. Over a decade ago the curricular change to add a laboratory to this course was initiated. During the second semester of the

2022–2023 academic year, Dr. Ruber Rodríguez Barreras, a newly-hired Ecology assistant professor, was given the task of following-through with this curricular initiative. As part of this, over \$ 15,000 of equipment specifically for this laboratory was purchased.

Department of Chemistry

- In the 2022-2023 academic year, new technology installations began in the classrooms. They are made to make a smart classroom, where you can have hybrid classes with a number of students in person and others virtually.
- At the moment all the classrooms and the Abbot room seminar have installed the new equipment to offer the courses in hybrid or face-to-face modality.
- A new General Chemistry Engineering course was created for engineering students. This course was approved for the Chemistry faculty meeting. It is still in the university approval committees process.
- Since the academic year 2021-2022 Dr. Carmen Amaralis Vega Olivencia founded the Vega-Olivencia Foundation to offer scholarships to students with economic need and are enrolled in our BS in Chemistry. At the moment 6 scholarships have been given.
- Dr. Joselyn Del Pilar was elected to the ACS-PR Board of Directors for the year 2023. She holds the position of delegate of the western region.
- Dr. Joselyn Del Pilar carried out an academic activity called Chemistry Hidden Figures of the course QUIM4026 (History of Chemistry).
- On April 27, 2023, Sigma Xi held The XXV Sigma Xi Poster Day in the Chemistry building. About 60 posters were presented. These included undergraduate students and graduate students.
- Dr. Enrique Meléndez in the academic year 2020-2021 made arrangements to obtain funds for the specialized equipment NMR (Nuclear Magnetic Resonance). In this academic year we already have the instrument in the Chemistry building.

Department of Economics

- Dr. Ivonne del C. Diaz-Rodriguez has developed two new courses in economics and sustainability. This is product of its participation as a co-principal investigator from a proposal of the UPRM Department of Engineering Sciences and Materials (awarded by the National Sciences Foundation and Microsoft). Also, developed a syllabus for a new course titled Economics of Well-being and Sustainability. This course was approved by the Department of Economics faculty at its ordinary meeting held on May 4, 2023.
- On May 1, 2023, Dr. Ivonne del C. Diaz-Rodriguez organized a virtual lecture to its students of the ecological economics course (ECON 4038). The lecture was offered by Marianna Defendini-Torres, a graduate student at London School of Economics and former UPRM economics student. The lecture was titled Equity: from the lens of a gender analysis.
- The faculty of the Department of Economics at its fourth ordinary meeting on Thursday, December 1, 2022, approved the revision of the list of courses to be used as recommended electives of the Bachelor of Arts in Economics Program. Justifications for including new courses to the recommended electives list includes (1) courses that are part of minor concentrations and/or curricular sequences and (2) courses requested by students pursuing a second bachelor's degree in economics.
- A report from the Curriculum Committee was distributed among the faculty staff, presenting a summary of the elements to be considered for the initial elaboration of a master's degree proposal in economics. The report was presented at the Department's fourth ordinary meeting held on Thursday, December 1, 2022.

- On Monday, December 5, 2022, the Department of Economics submitted to the Institutional Committee of General Education the review of three ECON undergraduate coding courses to be considered as general education courses. These courses are given as follows: ECON 3021: Principles of Economics: Microeconomics; ECON 3022: Principles of Economics: Macroeconomics and ECON 3085: Economic and Social Development of Puerto Rico.
- As part of an institutional project to transform classrooms into technological virtual classrooms, the UPRM's Information Technologies Center included in its first phase two classrooms of the Department of Economics, these are SH-102 and SH-103. The Department Coordinator of Technical Services to the User facilitated training for the faculty staff on how to use the newly installed equipment.
- The Department of Economics received institutional funding to acquire twenty (20) new licenses of the STATA program that will be available in the computer lab at SH-301.
- On November 28, 2022, a report entitled Should the Department of Economics Offer a Master's Degree? prepared by Dr. Eduardo Kicinski, Chair of the Curriculum Committee of the Department of Economic was presented at the faculty meeting.
- A draft of the master's degree in economics proposal was discussed and approved as part of the work of the third departmental meeting of the second semester of the academic year 2022-2023.
- The Department of Economics participated in the RUMex program offering in the first and second semester of the academic year 2022-2023 sections of the courses ECON 3021: Principles of Economics: Microeconomics and ECON 3022: Principles of Economics: Macroeconomic.
- The report of the five-year evaluation of the Minor Concentration in Economics was completed and eventually approved by the chairs of the Curriculum and Assessment Committees (Dr. Eduardo Kicinski and Dr. Ricardo Fuentes) on Tuesday, January 10, 2023. The report was presented to the consideration of the faculty of the Department and by electronic referendum being approved on Tuesday, January 17, 2023. The report was delivered to the Dean of Academic Affairs on Tuesday, January 17, 2023.
- The Department has two virtual (or hybrid) classrooms (i.e., SH-102 and SH-103). It is expected that between June 10 and 28, 2023, similar equipment is in process of being installed in classroom SH-104.

Department of English

- New academic program, Master of Arts in English Literatures (MAEL) was approved to begin in Fall 2022.
- Dr. Hugo Ríos was awarded "Becas Boricuas Sponsored by Fundación Flamboyán and Mellon Foundation".
- Dr. Ricia Chansky was recognized by Assembling Voices Fellow – Interdisciplinary Center for Innovative Theory and Empirics (INCITE) at Columbia University, 2022-2023, and Senior Climate Justice Fellow, Humanities Action Lab "Climates of Inequality" funded by the Andrew W. Mellon Foundation, 2022-2025
- Prof. Raisa Bonnet received recognition for her outstanding efforts to bring Puerto Rican films and filmmaking to the forefront. The Puerto Rican House of Representatives has instituted the celebration of Puerto Rican Cinema Day (Día del Cine Puertorriqueño).
- CH 221, 224, 318, and 319 were converted to Virtual Classrooms during May and June 2023.
- Reconnecting English Researchers Conference 2023 on April 28, 2023, from 2:00 to 6:00 p.m. CH 121. Professors, 22 former students and current graduate students participated and 3 professors.
- Open office concept for Graduate Teaching Assistants (CH 008 - 013), and Condemned language laboratories and offices in CH 325 y CH 326.

- Oral Histories Laboratory housed in the General Library acquired equipment through grants and transfer.
- Week at a Glance is issued every Friday and it highlights important dates and events. It also includes accomplishments by students and faculty.

Department of Geology

- We have prepared a complete curricular revision of the Bachelor's program. This includes the creation and revision of courses, which has all be completed. It will be presented for evaluation at the Faculty's level in the fall semester 2023.
- Kimberly Méndez (graduate student) participated in a workshop titled: "Expanding the Critical Zone Research Coordination Network", on July 18-21, at the Colorado School of Mines, in Golden, CO. Undergraduate student Cherilyn Toro-Acosta participated in an intensive workshop and training at Golden, Colorado, during the week of August 14 to 19, under the supervision of geophysicist William Stephenson. The training is related to her undergraduate research. Graduate student Jarelys González participated in the Convective and Volcanic Clouds (CVC) detecting, monitoring and modeling training course, which took place in Nicolosi, Italy, on 5-13 September 2022. It was organized with support from the European Geosciences Union and included 4 days in the topic of volcanic clouds and 4 days in the topic of convective clouds, plus 1.5 days of field work at Etna volcano.
- Two virtual rooms have been completed, F-201 (for classes) and F-204 (for labs).

Department of Humanities

- Some of the activities we carried out during this period are orientations workshop on academic offers and extracurricular activities for freshmen students (August 5, 2022). In addition, a virtual orientation about our Master in Cultural and Humanistic Studies takes place on February 28, 2023. The Department congratulates the students for having been included in the Honor Roll for the year 2021-2022 and presents them with a diploma, April 20, 2023.
- With the title *Universalita 2023*, we celebrate a cycle of conferences on Italian culture and civilization (March 16 and 30, April 13 and 27, 2023).
- Students from the different programs of the Department of Humanities publicly presented their theses, with question and discussion sessions, on May 2 and 4, 2023

Department of Kinesiology

- Prof. Josué Martir (2022) created the Module to certify cooperating teachers from school K to 12. This work was done in conjunction with the Teacher Preparation Program of the Campus. Likewise, Prof. Martir was in charge of training the Graduate Students with Assistantships so that they could better offer their courses.
- The kinesiology internship (or INTD) programs has created great working experience and professional exposition for our students. The student Kenneth Mateo participated in CREPS internship in Guadalupe, Mexico and Marelisa Jimenez participated as part of the Youth Ambassadors at the International Olympic Academy in Greece.
- Finally, we are working on a research and academic collaboration agreement with the University of Antioquia in Medellin, Colombia. In addition, we have served as advisors to the Departments of Education and Recreation and Sports of Puerto Rico for the past 5 years.

Department of Marine Sciences

- The Department of Marine Sciences is the only one offering a bi-lingual, comprehensive, high quality graduate program in marine sciences in Puerto Rico and the Caribbean. Graduates

from this program are highly competitive professionals and most of them have found jobs in local government and federal agencies, higher education/research institutions, and the private sector. Therefore, the UPRM-DMS is the leader institution providing graduate training to Puerto Rican and Caribbean students.

- The Department is working with the administration to finish the process of implementing a new program, the Professional Master's in Marine Sciences, with Plan II and Plan III. 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 to this new program. However, a procedural confusion with the application to create the program, forced the DMS to stop offering it, and re-start the application process anew. We expect this program to be active and running for the second semester of 2023-24.
- Professors Aurelio Mercado Irizarry was honored with rank of Doctor Honoris Causa by the University in a ceremony at the Mayagüez Campus (RUM) of the University of Puerto Rico (UPR). Dr. Mercado Irizarry was highlighted for having been a pioneer in Physical Oceanography issues in Puerto Rico, in addition to contributing significantly to the Curricular Sequence of Atmospheric Sciences and Meteorology of the Campus.

Department of Nursing

- The program of Nursing received the continuing accreditation for eight more years by ACEN on April 2023 final report.
- 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 are incorporated into maternity, pediatrics, psychiatry, medical-surgical I-II and community health courses.
- Collaborative agreements with the agencies that provide clinical experiences were reestablished and requested changes were incorporated, such as a decrease in students per section and negative tests for COVID19.
- Departmental committees were actively working towards a new curriculum with less credit hours, new courses and certifications.
- Collaborative agreements with University of Washington-School of Nursing, is being explored to engage in research, students exchange and academic endeavors.
- Electronic skills strategies developed by the lab nurse have been used by students with great success and acceptance.
- Student Recognition Night: Recognition was offered 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 night of achievement held on May 2nd ,2023 in the Department of Nursing.
- 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

- Considering the review of the general education courses carried out by the committee appointed by the UPRM Academic Senate, the total number of credits in the three options must be 127 credits, 14 credits less than the total in the current Physics baccalaureate.
- 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.

- 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.
- During this academic year, several undergraduate students have participated in the NANOGrav program under the supervision of Dr. Henri Radovan, through academic activities:
 - Three (3) Physics undergrads went to the NANOGrav Fall Science Meeting at University of Wisconsin Milwaukee on October 17-19, 2022
 - Two (2) Physics undergrads went to the NANOGrav Spring Science Meeting at Oregon State University on March 27-29, 2023
 - Eight (8) Physics undergrads and one Physics grad went to the NANOGrav Arecibo Observatory Workshop on December 19-21, 2022
- A student working with Dr Rafael Ramos on Computational Physics to study scientific problems using computational methods, which combines computer science, physics and applied mathematics to develop scientific solutions to complex problems such as earthquake modelling, presented at the following conferences:
 - Ortega, J.G., Ramos, R.A., & Vanacore, E. (17-20 abril, 2023). Computational Study of Foreshocks in the Burridge-Knopoff Earthquake Model Using Machine Learning. Poster presented at the Seismological Society of America Annual Meeting, San Juan, PR.
 - Ortega, J.G., Ramos, R.A., & Vanacore, E. (17 mayo, 2023). Computational Study of Foreshocks in the Burridge-Knopoff Earthquake Model Using Machine Learning. Poster presented at the Simposio de Investigación para Facultad y Estudiantes Graduados del UPRM, Mayaguez, PR.
- Students from the University of Puerto Rico campus Humacao (UPRH) and Mayaguez (UPRM) working on Condensed Matter with Dr. Francisco Bezares were involved in the following activities:
 - Presentation - Magnetron Sputtering Physical Vapor Deposition for Large-area, Ultra-high Sensitivity and Selectivity Sensors, NSF UPRH-UPENN PREM Annual Meeting, Humacao PR, students: Camila Negrón & Gabriel Garcia (UPRH), 12/12/23, Palmas del Mar, Humacao.
 - Poster - Optical Studies of Magnetron Sputtering Physical Vapor Deposition of Ag for Ultra-sensitive, Large-area Plasmonic Sensors, ACS SERMACS 2022 Conference, San Juan PR, 10/19-22/22, students: Camila Negrón & Lorena Reyes (UPRH), 10/21/22, San Juan Convention Center, PR.
 - Poster - TEM and SEM of Ag via Magnetron Sputtering Physical Vapor Deposition for Photonic Sensing Devices, ACS SERMACS 2022 Conference, San Juan PR, 10/19-22/22, students: Edgard Díaz & Gabriel García (UPRH), 10/21/22, San Juan Convention Center, PR.
 - Poster - Topographic and SERS Study of Magnetron Sputtering PVD of Ag Nanoparticles for Ultra-sensitive, Large-area Plasmonic Sensors, MRS Spring Meeting, April 10-14 2023, San Francisco CA, student: Joshua Chaparro (UPRM)
 - Presentation - The Effects of Magnetron Sputtering Physical Vapor Deposition Parameters in Ag Nanoparticles for Surface-enhanced Raman Scattering, 10mo Encuentro Estudiantil de Investigación, Creación y Servicio Comunitario, UPR-Cayey, 05/12/23, students: Edgard Díaz & Wanda Rivera (UPRH)

- Poster – Pillar [5]arene as Host Macro-molecules for Surface-enhanced Raman Scattering (SERS) Sensors, Simposio de Investigación UPRM 2023, UPR-Mayagüez, 05/17/23, students: Germán Vázquez (UPRM)
- Students working on High Energy Physics with Dr. Sudir Malik were involved in the following activities:
 - Guillermo Fidalgo facilitated and participated “DANCE/CoDaS@Snowmass 2022 computational and data science software training” co-located with “Seattle Snowmass Summer Meeting 2022”, University of Washington, Seattle, WA 19-23 July 2022
 - Guillermo Fidalgo participated in “Fourth Computational and Data Science school for HEP (CoDaS-HEP 2022)” at Princeton University, NJ 1-5 August 2022
 - Yarelis Acevedo presented poster "Searching for pair production of new heavy quark that decays into a W boson and light quark", at APS CUWiP conference at University of Central Florida, January 20 - 22, 2023
 - Arianna Cesani-Colon presented poster " EMJ Top Signal Implementation and Analysis Using Pythia 8", at APS CUWiP conference at University of Central Florida, January 20 - 22, 2023
 - Tiahra Aviles presented poster " Dee plaquettes thermal studies to improve manufacture", at APS CUWiP conference at University of Central Florida, January 20 - 22, 2023
 - Yarelis Acevedo presented "Searching for pair production of new heavy quark that decays into a W boson and light quark" at US ATLAS SUPER Symposium (12 August 2022), Aug 12, 2022.
 - Three students from CMS group – Cristhian Barbosa, Roy Cruz Candelaria and Guillermo traveled to Fermilab for CMS Data Analysis School, 9-13 January 2023
 - Tiahra Gonzalez (Physics undergrad): Undergrad spent summer of second time 2022 (her second time) at Cornell and extended her past work on thermal analysis of the modules located on the Dee.
 - Reynaldo Falcon (Physics undergrad): Falcon spent summer of 2022 at Cornell working on the design of a mechanical arrangement that can hold the Dee in pace while TIM gets deposited.
 - Yarelis traveled in summer 2022 to Oklahoma State University, Stillwater to do summer internship on ATLAS SUPER Program and worked on “Searching for pair production of new heavy quark that decays into a W boson and light quark”. Also, she got a 2023 summer undergrad fellowship at IRIS-HEP project to work on "Creating a lesson on unit tests for the HSF Analysis Preservation Training".

Department of Social Sciences

- The Department of Social Sciences is honored that the Governing Board and the University of Puerto Rico have awarded the academic distinction, Emeritus Professor, to Dr. Manuel Valdés Pizzini. They recognize and value the academic work, scientific research management and the career of Dr. Manuel Valdés Pizzini. He has been a mentor and an inspiring figure for the generations that today contribute to the country. We feel very proud. Congratulations Dr. Valdés Pizzini.
- Administrative procedures were carry out so that our department had more resources that promote distance education, hybrids and mixed course modalities. We currently have rooms CH-127, 128, 320, 321 and 328. Therefore, we are one of the departments of the Faculty of Arts and Sciences with the main number of virtual rooms.
- The creation of the minor concentration in Criminology was submitted. This sequence intends to promote the study of criminal behavior, the factors that provoke it, its manifestations, the social reaction; strategies for the prevention and control of criminal conduct. Therefore, the courses are aligned with the sociological focus of the Sociology Program. What allows a theoretical approach, based on the scientific foundations exposed

by sociologists and criminologists. In turn, the academic offering as designed shows a specific and interdisciplinary approach, which facilitates in students the understanding and analysis related to criminal behavior. The minor concentration in criminology seeks to promote and develop critical analysis of the social factors that affect criminal behavior in order to develop recommendations for public policies in the area of security; as well as, also achieve recognition of the figure of the victim in the legal process. The criminological study affects the study and description of criminal phenomena that directly and indirectly affect the individual and collective levels.

- The Department obtained several programs used by researchers and student-researchers of the Department (IBM SPSS, Qualtrics.XM, ATLAS.ti, End Note, N Vivo), including those linked to the Center for Applied Social Research (CISA) and the Interdisciplinary Center for Coastal Studies (CIEL), as well as by those professors who teach social research methods course and research seminars. They are also used for online research and collaboration. The methods and social research courses of the Department of Social Sciences benefit from these programs, as professors integrate them into their courses to provide their students with practical experience with these innovative and versatile programs. Consistently during the academic year, participatory-action-research experiences continue to be offered to students at the University Institute for the Development of Communities linked to CISO 3121 and 3122, SOCI 4095, CISO 4116, CISO 4117 and CISO 4118 courses under the INTD 3995 encoding for which they receive credit.
- There were 11 students participating in the United Nations Student Congress of Puerto Rico competition. Participation was part of the ONU Model course (CIPO 4735) offered by Dr. Waldemar Arroyo. In this competition, the students simulated the diplomatic representation of a delegation of the member states of the United Nations Organization (ONU). They participated in processes of debate, multilateral negotiation and drafting of resolutions. The competition was held at the Robinson School in San Juan on Saturday, February 25, 2023.
- Dr. Waldemar Arroyo Rojas, Academic advisor of the UPRM Delegation to the United Nations Student Congress of Puerto Rico (Condado, Puerto Rico) February 25, 2023; coordinator and supervisor of internal students in the Department of State of Puerto Rico January - May 2023
- Our Department are proud of the student representation at the 2023 Inter-University Athletic League Sports Festival (L.A.I.). During the games we had the participation of students from our department, Franette Ocasio, Student of the History Program, Captain of the women's Judo team, she achieved the distinction of the Bronze medal in the 63kg category. We also congratulate Emmanuel Pérez, a student from the Political Science Program who won the silver medal in the men's Judo sport in the +100kg category.
- The administrative staff welcomed students from different high schools. We are very happy that you visited us at the Open House on November 10, 2022.
- During the 2022-2023 academic year, several professors from our department retired: Prof. Ileana Matías del Toro and Dr. Michael Campbell Wolfmeyer.

E. To increase and diversify the Institution's sources of revenue

Department of Economics

- Dr. Carlos A. del Valle-Gonzalez, participated in the National UTC proposal led by the University of South Florida to establish a University Transportation Center named National Institute for Congestion Reduction (NICR).
- María Eugenia Rodríguez, senior student of the Department of Economics, together with the student Adriana Ramírez, of the Department of Civil Engineering, participated in a project funded by the UPRM Sea Grant Program to document environmental conflicts on the island,

through the Global Atlas of Environmental Justice. Dr. Ivonne del C. Diaz, professor at the Department of Economics participate in the project and gave research support for both students.

- Dr. Carlos A. del Valle has an intramural practice with the municipality of Mayaguez. The project title is Review of Alternatives for the Collective Transportation System in the Autonomous Municipality of Mayagüez (Mayagüez Transit Study 2015).
- Dr. Ivonne del C. Díaz participates as a co-principal investigator in a project developed by the faculty of engineering for the National Science Foundation, entitled "A New Paradigm for Sustainability and Resilience Engineering: A Transdisciplinary, Learner-Centered, and Diversity-Focused Approach. PI: Dr. Christopher Papadopoulos.
- The Department of Economics participates in the RUMex program offering course sections of ECON 3021: Principles of Economics: Microeconomics and ECON 3022: Principles of Economics: Macroeconomics during the first and second semester of the academic year 2022-2023. Based on information provided by the Dean of Academic Affairs this participation allowed the Department to receive an income \$6,441.03 in the First Semester 2022-2023 and \$9,777.66 in the Second Semester 2022-2023. These funds are assigned according the Certification No. 21-46 and Certification No. 22-98, both of the Academic Senate.
- Dr. Carlos A. del Valle participated as a co-investigator at the National Institute for Congestion Reduction (NICR of the USDOT) under the supervision of the principal investigator Dr. Alberto M. Figueroa of the Department of Civil Engineering of the UPRM. Economics students Enzo Gutiérrez and Jorge J. Quiles receive research assistantships for participating in this project.
- Dr. Ricardo R. Fuentes and Dr. Jeffry Valentin are developing the logistics to visits high schools of the western region in order to promote among high school students the importance about the science of economics.

Department of English

- Laboratories for Basic English I and II were created in house and generate income. These monies are used to pay the professor's extra compensation, "jornales" for graduate and undergraduate students, travel expenses, chairs for administrative personnel, materials for incoming students, summer camp, and graduating candidates, promotional materials and others.
- Grants approved:
 - Dr. Hugo Ríos Cordero - Media Studies Power and Presentation Curricular Sequence (NEH) - \$149,178
 - Dr. Ricia Chansky (Oral History Lab):
 - "Speaking into Silences: Building Community Archives across the Puerto Rican Archipelago" funded by an American Council of Learned Societies Digital Justice Grant - \$100,000
 - Listening to Puerto Rico: The Promise of Oral History On-Campus and Beyond (NEH) - \$500,000
 - Climates of Inequality & the COVID Crisis: Building Leadership at Minority Serving Institutions (MSIs). Agency: Rutgers University – Newark - \$32,776

Department of Humanities

- Dr. Jeffrey Herlihy, recipient of a \$25,000 grant from the Teagle Foundation's Cornerstone: Learning for Living project, co-sponsored by the National Endowment for the Humanities. The proposal will develop the following thematic axes: environmental humanities; digital; for

engineers; and Medical in order to align with an integrative educational experience, November 18, 2022

- Dr. Jeffrey Herlihy, recipient of a \$300,000 grant from the Teagle Foundation's Cornerstone: Learning for Living project, which aims to support the scale-up of the general education certificate program, including the 1st year gateway cultivating a common intellectual experience around shared texts for incoming students. The proposal will develop the following thematic axes: environmental humanities; digital; for engineers; and Medical to align with an integrative educational experience, May 19, 2023.
- The new Master's Degree in Cultural and Humanistic Studies of the Humanities Department (HUMA) of the Mayagüez Campus (RUM) of the University of Puerto Rico (UPR) received an \$825,000 grant from the Mellon Foundation to sponsor the initiative entitled New Horizons in Cultural and Humanistic Studies in Puerto Rico. Dr. Jeffrey Herlihy, Principal Investigator, Dr. Mariam Colón and Dr. Christopher Powers, Co-Directors and Co-Investigators.

Department of Kinesiology

- In the past few years, the Department of Kinesiology has improved the external funding from our faculty: Iris Figueroa, Ramón Luis Álvarez, Carlos Torres and Luis O. Del Río. The Department has developed a professional improvement, training and consulting program for Personal Trainers and Physical Educators in the Western Region. This program achieved \$11,000.00 in earnings.
- In addition, we expect to improve the income from the International Football Federation FIFA by the Certification Program in Sports Management. This interdisciplinary program (business administration and kinesiology) will share the profit.
- Finally, we lease our sports facilities to the university community and the Western Region. All these funds have helped us to employ non-teaching staff during the month of July, hire students, make improvements to the facilities, and purchase sports and office equipment.

Department of Marine Sciences

- Even though the DMS has only eight active, full-time professors Ten (10) research proposals submitted to Federal agencies (EPA-DNRA, NASA), institutions (Purdue University, Schmidt Institution) and foundations (Wenner Green Foundation) for a total of \$ 3,747,556 in research funding were approved during this year, and several projects started during 2022-23.
- Two other proposals in which the DMS (Dr. E.Weil) is a collaborator (co-PI), that were submitted to NOAA by ISER (Institute for Socio-Ecological Research, an NGO) with other collaborators, and another collaborative research with the DNRA (for a total of \$ 11,189,000 in research funds), were approved during 2022-23.
- During the fiscal year of 2022-23, the DMS received a total of \$ 103,623 from the use of lab space, boats, dive tanks, and dormitories from CARICOOS, Ecoelectrica, federal agencies, visitors, students and faculty members' grants. These funds are used for the maintenance and improving of our facilities and equipment, and the purchase of new equipment such as dive tanks, outboard engines, spare parts, new air conditioners to replace old units, etc.
- Institutional funds for maintenance of the Magueyes lab facilities in La Parguera were used for gasoline, diesel, motor oil, cleaning, spare parts, laboratory equipment and the update of our three (3) classrooms, one in Mayagüez and two Magueyes (\$62,973). The Faculty of Arts and Sciences provided \$32,716.32 for updating equipment for non-teaching staff. Through this, several pieces of equipment were acquired with the purpose of improving technological resources. The "Center of Technology Information (CTI)" provided \$31,176.58 to improve the teaching laboratories and classroom to be able to provide local and distance teaching and conferences.

- During the fiscal year 2022-2023 the Department received \$6,250.00 for the use of the big boats, \$16,770.51 for the use of small boats, and \$5,328.00 for the use of diving equipment. For 2022-23 the use of classrooms, conference room, wetlab space, and laboratory/office space produced \$74,576.40. The use of the dormitories brought in \$626.75. The use of a photocopier at Isla Magueyes produced \$71.50.

Department of Math Sciences

- Mathematical Strengthening Institute (INFOMATE), which is generating income because students have recognized its importance in reviewing the topics required to pass the Mathematics Diagnostic Exam.
- Writing, revision and marketing of the books that are under our department and that are used for the basic courses.

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 and awaits approval by other Boards of health professionals.
- Began preparing professional certifications in various areas of interest, for example: cardiovascular, forensic, end-of-life care. These professional certifications will increase and diversify the department's source of revenue.
- Review of the Nursing Graduate Program proposal.
- Continue seeking external funds through proposals to NIH, NINR, NSF, Johnson & Johnson, HRSA, ANA, etc.
- Faculty begins to integrate into their syllabi activities recommended by the Institute of Medicine in its report *The Future of Nursing 2020-2030*.
- The recruitment and retention of student's committee accomplished 3 open houses, orientations and a virtual online open house on October, 11, November 4th 2023 and February 5th, 2023.

Department of Physics

- Two proposals by Dr. Armando Rúa to support his research on Materials: MRI: Track #1 Acquisition of a physical properties measurement system to support research and training in Quantum Materials and Transformative Devices, NSF, \$867,00 (pending), PI, and Unraveling the switching mechanism in phase-change materials for brain-inspired computing applications, Gordon and Moore Foundation, \$1,250,000 (pending)
- Three proposals by Dr. Sergiy Lysenko to support his research on Materials: 1) PreProposal: EPiQS Flexible Funding Ideas 2023, Agency Moore, \$800,000, 2024-2027, Status: Pending, 2) Equipment: MRI Track 1: Acquisition of a physical properties measurement system to support research and training in Quantum Materials and Transformative Devices, NSF \$865,003, Period: 03/16/2023 - 02/21/2023, Status: Pending, and 3) Dual Use Exoplanet Telescope, NIAC, \$500,000, Period: 2022-2024, Status: Rejected
- Two proposals by Dr. Francisco Bezares to support his research on Materials: Ultra-thin Molecular Lasers for Quantum and Photonic Technology Applications, NSF Early Career Program, \$250K/2yr, submitted 01/21/2023 (pending), and Acquisition of AFM-Raman

Confocal Microscope to Enhance Materials Research and Training of STEM, NSF MURI Program, \$350K Raman Confocal Microscope, submitted 02/21/23 (pending)

- External funds received: \$1,433,694.00

Department of Psychology

The Department continued the process of establishing a service clinic for children and adolescents from which students of the Doctoral Program in School Psychology can perform internships of several graduate courses. Specifically, it is proposed to establish a clinic of psychological services aimed at the population of children and adolescents in the western region of Puerto Rico. Services would be offered in the following areas:

- Evaluation (Administration of psycho-educational and psycho-neurological tests)
- Intervention (Psychological therapy)
- Training-education (Workshops, prevention and education seminars)
- Program evaluation

Department of Social Sciences

- It is planning to create a continuing education program for professions that need continuing education such as Social Work professionals. In addition, the possibility of offering evaluation services to non-profit organizations whose funders require evaluation of professional services is explored. This is being planned to be carried out from the facilities of the Center for Applied Social Research (CISA).
- Work is being done on the creation of the Graduate Program of the Department of Social Sciences.
- Currently, courses are taught at the "Rumex" night school to bring funds to the Department and, in turn, part of the budget is directed to the Mayaguez Campus.
- Research:
 - Instituto Universitario para el Desarrollo de las Comunidades de la UPRM. Whole Community Resilience Planning (WCRP) Program under the Community Development Block. Grant for Disaster Recovery Program (CDBG-DR Program). To carry out community resilience plans in: "La Salud Mayagüez; El Cerro, Naranjito; Villa Esperanza, Toa Alta; Las Carolinas, San Germán; La Calle Abajo, Lajas; Guayabota, Yabucoa; and San salvador, Caguas". Luisa Seijo Maldonado (PI). Ingrid Rodríguez Ramos, Reinaldo Rosado Silva, Ricardo Fuentes Ramírez, Marcel castro Setirichi, Francisco Maldonado y Lizzette González (Co-PI). Total \$1,400,000.00. Project duration: 2022-2024.
 - Dr. Tania del Mar López Marrero. A Participatory Approach to El Yunque Ecosystem Services and Drivers of Ecosystem Change: Ten Years Later (USDA Forest Service, Southern Research Station, and Agreement Number: 17-CS-11330144-063. \$128,721).
 - Dr. Tania del Mar López Marrero. Trees in urban spaces: History, meanings and uses (USDA Forests Service, International Institute of Tropical Forestry, Award Number: 21-CA-11120107-016. Total \$185,755).
 - In June 2023, it approved a modification to the proposal to extend the completion date of the project and add new objectives and publications. The modification also included an additional contribution of funds from the USDA-FS IITF for \$41,920, mainly to cover assistantships for undergraduate research assistants, among other items.
 - Dr. Tania del Mar López Marrero. Project 1867: Disasters and memory in Puerto Rico. During this year, a component was developed for the project of writing stories about disasters in Puerto Rico. Six Comparative Literature students wrote them; they are in the process of publication.

- Dr. Tania del Mar López Marrero. Land cover built one kilometer from the coast of Puerto Rico. This research is carried out through the Sea Grant Program, which has subsidized stipends to students as research assistants.

F. To implement efficient and expedient administrative procedures

Department of Economics

- The results of the administrative assessment questionnaire were presented at the fourth regular meeting of the Department of Economics held on Thursday, December 1, 2022. On March 3, 2022. The administrative evaluation questionnaire was distributed to the nine (9) active teachers of the Department of Economics via Google Forms.
- As part of the training process of the administrative staff of the Department, the following workshops were attended:
 - Workshop Law of LGBTQ+ students (Circular Letter R-2122-76); Thursday, September 1, 2022; organized by the office of the chancellor.
 - Training Workshop for Administrative Staff; Tuesday, August 30, 2022; organized by the Dean of the College of Arts and Sciences.
 - Workshop on new travel forms in the UPR system; Friday, August 5, 2022; organized by Central Administration.
- The Department continues a document digitization effort in order to liberalize storage space. The digitization process has been carried out since the first semester of the 2019-2020 academic year (see Director's Report delivered at the ordinary meeting of Thursday, October 25, 2019).
- VoiP Telephony Service: As part of the technology transition project of the telephone system of the Campus, the Department is pending to receive a new POE (Power Over Ethernet) Switch that would allow connecting a greater number of VOIP (Voice over IP) telephones, which will benefit the teaching offices on the third floor. In addition, the Department will receive together with the Switch the corresponding VOIP telephone units.
- An online questionnaire is accessible to all students, where they can inform their perceptions about the Department academic counseling services. The questionnaire is available at <https://www.uprm.edu/economia/evaluacion-consejeria-academica/>
- The Department's website is continuously updated. On May 3, 2023, the Technical Services Coordinator participated in a Hand on Training on Accessibility to Web Pages for blind people sponsored by the Information Systems personnel of the UPR Central Administration.

Department of English

We received the following feedback on received Sign Request training on June 28, 2023: prepare sheets with accumulated data for part-time and temporary faculty showing workload per semester, provide access to MAEE and MAEL folders with information from each program to the graduate coordinators, and provide undergraduate students access (view only) to their evaluation forms and curricular documents as well as to their advising professors.

Department of Marine Sciences

- Administrative staff has been working to simplify the flow of information and run administrative tasks more efficiently across employees, faculty, and students. A Spreadsheet summarizing information related to the different steps of the purchase process has been created, for example. This table is in onedrive for easy access to everyone.

- The process of tracking fuel use (Diesel and gasoline) in Magueyes has been optimized using Google Forms to evaluate consumption and have an efficient plan to avoid running out of fuel for the boats and diesel for the generators during normal use, and in case of an emergency. This record, in conjunction with calendar reminders, has improved the purchasing and sourcing process.

Department of Math Sciences

- Initiatives continue to be implemented to achieve greater efficiency and agility in administrative processes that contribute to the "no-paper" policy: digitization of files, increasing the efficiency of the digitized process of approval certifications for the Mathematics Diagnostic Exam and of the Institute of Mathematical Strengthening.
- Improvement of the servers and update of the files to continue offering the Institute of Mathematical Strengthening (INFOMATE) completely online.

Department of Nursing

- 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 used through the use of WhatsApp, chats, Meet, and teams.

Department of Social Sciences

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

G. To strengthen research and competitive creative endeavors

Department of Biology

Partial list of publications by members of our department in this academic year include 13 new publications.

Department of Chemistry

- During the 2022-2023 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.
- Five Scientific Articles of the Department of Chemistry are published during the academic year 2022-2023.

Department of Economics

- Dr. Carlos A. del Valle-Gonzalez, Associated Professor of the Department of Economics, participated in the National UTC proposal led by the University of South Florida to establish a University Transportation Center named National Institute for Congestion Reduction (NICR).

- Dra. Ivonne del C. Díaz-Rodríguez participated in a proposal sponsored by the NSF and Microsoft for the development of two courses on economics and sustainability, through the Department of Materials Engineering of the UPRM.
- Publication of the book "Verdor que Clama" in September 2022, edited by doctors Carmen Rivera Villegas and Alexandra Morales of the Department of Hispanic Studies of the UPRM. The publication includes an essay "Impact of Catastrophic Climate Changes" by Dr. Ivonne del C. Díaz.
- Dr. Ivonne del C. Diaz-Rodriguez participated in collaborative agreement with the UPRM Sea Grant Office to document environmental conflicts through the Environmental Justice Atlas. Two students participated during the second semester 2022-2023: María Eugenia Rodríguez-Carrió, from the Department of Economics, and Adriana Ramírez-Cuebas, student at the Department of Civil Engineering.
- Dr. Ricardo R. Fuentes-Ramirez, participated on a proposal funded by the Economic Development Agency (NPO-SIED) in collaboration with the UPRM College of Business Administration. Participated in a pre-proposal submitted to the National Science Foundation entitled "Engineering Research Center for a Rural Adaptable and Inclusive Community Resilience Decision-support System (Rural-ACCoRDS)". In addition, a contract was signed to start work during the Second Semester 2022-2023 with a grant from CDBG-DR funds for the development of resilience plans for seven communities on the island. In addition, participated as a speaker in the following conferences: Political Economy of Native Capital. Conference Critical Political Economy of Puerto Rico: Past, Present and Future. University of Puerto Rico-Rio Piedras. April 27, 2023. Economic Planning in National and Regional Contexts. Third Congress of Applied Economics of Puerto Rico. University of Puerto Rico-Mayagüez. May 5, 2023. Participated as an investigator in the following's proposal awarded:
 - The Comprehensive Community Resilience Planning Program, funded by federal CDBG-DR funds administered by the Department of Housing, was able to present the planning process to be carried out to the seven participating communities, and all of them were able to obtain the signing of the collaboration agreement.
 - Nonprofit Organizations Strengthening Initiative for Economic Development, funded by the U.S. Bureau of Economic Analysis, after "graduating" the first cohort of Non-Profit Organizations (NPOs) that received assistance from the project, the call was launched and constituted the second cohort.
- The Department of Economics announced to the UPRM university community on Wednesday, December 14, 2022 the publication of the tenth volume of the digital magazine "Ceteris Paribus", which is available at the following link: <https://www.uprm.edu/ceterisparibus/> .

Department of English

- Most relevant publications and presentations:
 - Font-Santiago, Cristopher, Mirva Johnson, & Joseph Salmons. Reallocation: How new forms arise from contact. In Rebecca Roeder & Gabriela Alfaraz (Eds.), *Language and Linguistics Compass* 16(8). Hoboken: Wiley-Blackwell. (Invited, Peer Reviewed). DOI: <https://doi.org/10.1111/lnc3.12470>
 - Stephens, Gregory, "Postcolonialism as Leftist Firing Squad and Procrustean Bed: A Communicative Take." *Journal for Cultural Research* (Spring 2023).
 - Uwakweh, Stephania. *Omekam: Poems*, ISBN- 978-1-970166-60-6, CePa, 2023
 - Chansky, Ricia, Co-Editor, *The Divided States: Unraveling National Identity in the Twenty-first Century* – University of Wisconsin Press – January 2023
 - Soto-Santiago, S. L. (2023). You have to learn the language of where you are: Language ideologies and the educational experiences of Puerto Rican transnational youth. *Special Issue on Languages in Modern Day Puerto Rico*. (Manuscript submitted for publication).

- Graduate assistantships for research and teaching (quantity and amount awarded):
 - Fall 2022-23: There were 23 (43% of the teaching faculty) graduate teaching assistants teaching 6 (9%) of the different courses in 51 sections (31%) that impacted 1301 students (35%) of the population served. (51 sections x \$500 = \$25,500)
 - Spring 2022-23: There were 23 (42% of the teaching faculty) graduate teaching assistants teaching 7 (12%) of the different courses in 47 sections (31%) impacting 1266 students (39%) of the population served. (47 sections x \$500 = \$23,500)

Department of Geology

- On 26-January-2023, Prof. Stephen Hughes submitted an invited collaborative proposal with colleagues at SUNY Albany to the NSF Environmental Sustainability program. The title of the proposal is "Collaborative Research: On the Resiliency of the Power Infrastructure to Recurrent Extreme Weather Events of Islanded Communities". The \$494k proposal is for a 2.5 year project that would be coordinated with the local electricity utility in Puerto Rico and would add to the research portfolio of the department.
- On July 22, 2022 Prof. Stephen Hughes was informed that a proposal he is co-PI on and submitted to the NSF Centers for Innovation and Community Engagement in Solid Earth Geohazards program was recommended for funding. The 2 year \$497k project is titled "Track I Center Catalyst: Collaborative Center for Landslides and Ground Failure Geohazards" and is collaborative with Georgia Tech and the University of Colorado. Additional UPRM co-PIs are Alesandra Morales and Ismael Pagan of the Civil Engineering department. At the end of the 2-year period, the group will have the opportunity to submit a proposal for a 5-year, \$15 Million project.
- On July 23, 2022 Prof. Stephen Hughes was informed that a proposal he is co-PI on and submitted to the NOAA Climate Program Office Regional Integrated Sciences and Assessments opportunity was recommended for funding. The 5-year \$5 Million project is titled "Caribbean Climate Adaptation Network: Building equitable adaptive capacities of the US Virgin Islands and Puerto Rico." and is collaborative with several institutions including the lead university: UPR-Medical Sciences. The other UPRM co-PI is Eric Harmsen of the Department of Agricultural and Biosystems Engineering.
- An NSF grant of Prof. Thomas Hudgins has been awarded. The title is "Collaborative Research: Characterizing Iron Deposits in Puerto Rico to Elucidate Metal Transport and Magnetite Mineralization Processes in Skarn Systems".
- The Puerto Rico (PR) Component of the NTHMP 22-23 was awarded, in the sum of \$400,864.00. This project will allow for the continuity of the PR tsunami program. Prof. Victor Huerfano is PI and Prof. Elizabeth Vanacore is Co-I of the grant.
- The following proposal was approved for funding with the USGS: "UPRM Geophysical Studies for Updating the Puerto Rico Seismic Hazard Map: A Local Workshop Approach." The proposal is for 2 years (September 1, 2022 to August 31, 2024), with the objective of providing information conducive to the updating of the seismic risk map of PR. The funding is of \$497,523. The proposal was submitted by Profs. Alberto López, Víctor Huérfano, Elizabeth Vanacore, and José Martínez Cruzado.
- On October 24, 2022, Prof. Stephen Hughes received a \$21,750 grant from NSF titled Collaborative Research: RAPID: The fate of landslide-derived sediment following tropical cyclones: a case study of Hurricane Fiona in Puerto Rico.
- On Oct 25, 2022, the NOAA Climate Program Office officially announced it would fund a 5-year, \$6M Climate Adaptation Partnership in PR and USVI. The project title is "Caribbean Climate Adaptation Network" and includes PI at UPR-Ciencias Médicas and co-PIs Eric Harmsen and Prof. Stephen Hughes at UPRM.

- Over 20 undergraduate and graduate students participated in summer research internships in 2022, at different universities in USA, the National Weather Service in Pennsylvania, IRIS, the Arctic REU internship, NOAA, the NSF initiative Student-Driven Internship Opportunities in the Atmospheric Sciences, the National Weather Center in Oklahoma, the Denver Museum of Nature & Science, the Laboratory of Communication in Meteorology at WAPA-TV.
- Presentations at the 2022 Geological Society of America conference, celebrated in Denver, CO, in October 9-12, 2022: "Inventing AUGR: Reflections on designing and implementing an Authentic Undergraduate Geoscience Research experience", co-authored by Prof. Stephen Hughes. Lead author is Isabella Bennett of the Univ. of Vermont, and "Remote mapping and landscape morphology of potentially active faults in Puerto Rico", co-authored by Prof. Stephen Hughes. Lead author is Jessica Thompson-Jobe of the USGS Earthquake Hazards program.
- Graduate student Yanira Rivera participated in the NOAA EPP/MSI Education and Science Forum, in Tallahassee, FL, in August 2022. Her poster was titled: "Measuring Hurricane Maria's Impacts and Recovery Remotely with Blue-Roof-Tarps and Nighttime Lights throughout Puerto Rico". She received a third-place award in Social Science, Education and Communications.
- The following manuscript was accepted for publication at BSSA: "CARIBE WAVE: A Decade of Exercises for Validating Tsunami Preparedness in the Caribbean and Adjacent Regions", by alumnus Stephanie Soto, Christa von Hillebrandt-Andrade, Prof. Elizabeth A. Vanacore, Silvia Chacón-Barrantes, and Alison Brome.
- Alumnus Giovanni Nin presented his MS thesis research at the Simposio Santiaguito 100 Años, a hybrid conference dedicated to research related to the activity at the Santiaguito Dome Complex, in Guatemala, which started growing in 2022 and continues.
- The following article was published: "Estimating Co-seismic Deformation of Southwestern Puerto Rico from the 7 January 2020 Mw 6.4 Earthquake: Constraints from Campaign and Continuous GPS", by Alberto M. López-Venegas; Glen S. Mattioli; Margarita Solares-Colón; David Mencin; Pamela E. Jansma, at *Bulletin of the Seismological Society of America* (2023) 113 (1): 99–114.
- Delgado Maisonet, D., Rodriguez Iglesias, L.A., 2023, "Analysis of SO₂ Emissions from Active Volcanoes in Guatemala to Assess Volcanic Degassing and Eruptive Activity", Sigma Xi Poster Day, 27 April, University of Puerto Rico-Mayaguez Campus.
- Clouard, V., Angove, M., Rodriguez, L., Tenorio, V., Joseph, E., Ryan, G., McCreery, C., Calvache, M., Paris, R., Lynch, L., McNamara, D., Arcos, N., Talavera, E., von Hillebrandt-Andrade, C., Aliaga, B., 2022, "On-going implementation of tsunami procedures for volcano crisis in the Caribbean", LACSC 4th Assembly, Quito, Ecuador.
- Charbonnier, S.J., Garín, F., Rodríguez, L., Ayala, K., Cancel, S., Escobar-Wolf, R., Chigna, G., Chun-Quinillo, C., González, D., Chigna, W., Chun-Quinillo, K., Mérida, R., Juárez, F., Calder, E.S., 2023, "Unravelling the Dynamics and Hazards of the June 3rd, 2018, Pyroclastic Density Currents at Fuego volcano (Guatemala)", *Journal of Volcanology and Geothermal Research*, Volume 436, 107791, ISSN 0377-0273, <https://doi.org/10.1016/j.jvolgeores.2023.107791>.
- Prof. Elizabeth Vanacore was informed in March 2023 that the final version of the Global Key Performance Indicators for Tsunami Warming and Mitigation of which she was a member of the UNESCO/IOC task team to develop will be published as a Terms of Reference by UNSECO/IOC and developed into a webtool by UNESCO/IOC for global tsunami hazard mitigation reporting.
- On 08-March-2023 the Geotechnical Extreme Events Reconnaissance report for Hurricane Fiona was published. The report was a collaboration between UPRM, Georgia Tech Univ., Univ. of Michigan, and Univ. of California Berkeley. UPRM authors include Alesandra Morales (INCI), Stephen Hughes, Edwin Irizarry, Estefania Vicens, Tania Figueroa, Coralís

- Friedman, Kiara Cunillera, Anishka Ruiz, and Victor Ortega.
https://geerassociation.org/component/geer_reports/?view=geerreports&id=108
- Presentations at the Seismological Society of America (SSA) Annual Meeting, in San Juan, PR (17-20 April 2023): Integrating Volcanic Sources into the Tsunami Warning System for the Caribbean and Adjacent Regions, Authors: Christa von Hillebrandt-Andrade, Valerie Clouard, Jelis J. Sostre-Cortés, Elizabeth Vanacore, Bernardo Aliaga, Mike Angove, Nicolas Arcos, Silvia Chacón-Barrantes, Francisco Dourado, Octavio Gomez-Ramos, Erouscilla Joseph, Laura Kong, Lloyd Lynch, Charles McCreery, Dan McNamara, Raphael Paris, Lizzette Rodriguez, Roy Watlington, and Vs30 Measurements at Puerto Rico Seismic Sites, by Cherilyn Toro and Elizabeth Vanacore.
 - On 27-Apr-2023 Prof. Stephen Hughes gave an invited presentation for the FEMA Community Assistance Recovery Support Function Virtual "Simposio de Agua". The title of the webinar was "Recovery Strategies for Community Access to Drinking Water and Landslides Mitigation".
 - Graduate assistantships for research and teaching (quantity and amount awarded): TA: 11; Total = \$44374.99 RA: 8; Total = \$47216.60

Department of Humanities

- The following professors had release time granted by the Faculty of Arts and Sciences for their projects: Dr. Sara Gavrell: *Beyond Obstetric Violence: Imposed Caesareans as Institutionalized Torture*; Dr. Jeffrey Herlihy: *Eurocentrism and the Limits of Foreignness in the Academic Ecosystem, and Land Grant Universities and Cultural Dispossession*; Dr. Noemí Maldonado: *The validity and relevance of ancestral cultural practices for the benefit of current artistic and pedagogical practices*; Dr. Emilia Quiñones: *Marcos Irizarry: life and work*; Dr. Jerry Torres: *Nature and the city: cultural study of the relationships between the built environment in the city of San Juan, Puerto Rico and its natural environment*.
- Professors Lilliam Larregoity and Baruch Vergara participated on exhibitions. In addition, Dr. Melissa Ramos, Dr. Emilia Quiñones and Prof. Claudia Torres worked with the project *The Materialization of the Domestic-corporal*, that consist of writing a 1,000-word text and an 8,000-word essay. Puerto Rican Foundation for the Humanities, effective period from August 18 to December 16, 2022.

Department of Kinesiology

- Dr. Luis O Del Río, Puerto Rican Handball Federation, exalted as an athlete and promoter to the Handball Hall of Immortals. Sports Museum, Guaynabo (2022).
- Prof. Manuel Morales, The Puerto Rico Paralympic Committee and the Paralympic Academy awarded the recognition as an APAPUR Presidium for his outstanding participation and support to Paralympic Education. Ponce (2022).
- Del Río, L.O.; Figueroa, I.A. and Quiñones, C. (2022). *Conversatory on Prevention and Reduction of Childhood Obesity in Puerto Rico*. School of Public Health, UPR Medical Sciences Campus.
- Figueroa, I.A. (2022). NIH Research Proposal to submit, for submission form Transformative Research to Address Health Disparities and Advance Health Equity Institution. Research proposal jointly with CDC, Ohio State University, University of Wisconsin-Madison, Universidad de Caldas, Manizales and Universidad de Antioquia, Medellin, Colombia.
- Figueroa, I.A. (2022). PTEENS (Focused on Obesity and Children in Mayagüez) intervention with CDC, Ohio State, University of Wisconsin and Coco Pediatrics.
- Torres, C.X. (2022). Racial, ethnic, and nativity disparities in physical activity and sedentary time among Cancer Prevention Study-3 participants. Accepted for publication (January,

- 2022). *Medicine and Science in sports and exercise*. ACSM.
- Morales, M.; Torres, C. and Del Río, L.O. (2022). Personal Training for people with disabilities. Workshop for members of the Puerto Rico Paralympic Committee. Catholic University of Puerto Rico. Ponce, October 22, 2022.
 - Del Río, L.O. (2022). Physical activity during times of COVID-19. Annual Convention of Physical Education and Recreation of Puerto Rico. Salinas, PR.
 - Del Río, L.O. and Álvarez, R.L. (2022). Coordinators of the National Physical Education Convention, Aguadilla, PR.
 - R. Álvarez (2022). Research was conducted with seed funds entitled: Impact of the Ephibia Manual in Puerto Rico.
 - Del Río, L.O. (2022). Review for the Fitness Trainer License Certification Examination. Department of Recreation and Sports. December 10, 11, and 12, 2022.
 - Del Río, L.O. (2022). Review for the Fitness Trainer License Certification Examination. Department of Recreation and Sports. May, 12, 14 and 15, 2023.
 - Morales, M. (2023). In charge of the Gymnasium Safety and Fitness Commission. Department of Recreation and Sports.
 - Morales, M. (2023). Physical Fitness Instructor Education Program Director. FIDES Corp.
 - Morales, M.; Torres, C.; Rodríguez, E. and Del Río, L.O. (2023). Lecturers in the Physical Fitness Instructor Education Program. FIDES Corp.
 - Rodríguez, J.N. (2023). Development of the Beach Volleyball Technical Program in the western area.
 - Rodriguez, J.N. (2023). NFHS Coaching Adapted Sports. Research. Rodriguez, J.N. (2023). NFHS ACL Injury Prevention. Research.
 - Rodriguez, A.L. (2022). Therapeutic Prevention Exercise Reduces the Risk of Overuse Injuries in Sports Players of 13-17 Years Old. Research.
 - Rodriguez, A.L. (2022). Impact of Low-Level Laser Therapy in Pain Rehabilitation. Research.

Department of Marine Sciences

- Faculty members submitted ten (10) research proposals (Pi and Co-PI) to Federal agencies (EPA-DNRA, NASA), institutions (Purdue University, Schmidt Institution) and foundations (Wenner Green Foundation). Most of these were approved during this year for a total of \$ 3,747,556 in research funding.
- Collaboration agreements were discussed between the DMS and the California State University, NorthRidge Campus (Dr. Peter Edmunds) and SCRIPS Institute of Oceanography, University of California, San Diego (Dr. Dahiana Arcilla and Dra. Isabel Collazo). An MOU is being developed to officialize the verbal agreement with CSU, which includes student exchange, remote teaching of courses, and research collaborations. Similarly, two MOU's are being developed between the DMS and two Departments at the SCRIPPS Institution, University of California, San Diego. One with the Department of Anthropology (Dra. Isabel Collazo), and one with the department of biology (Dr. Dahiana Arcilla). A summer course in fish biology and evolution was organized by the DMS and Dr. Dahiana Arcila to be offered for the first summer session of 2023. Unfortunately, there were no applications because of the high cost of the course. We are seeking alternatives to provide financial support for next year.
- Drs. T. Courtney and E. Weil collaborated with the Schmidt Ocean Institute, a private NGO, with an agreement to collaborate with a mesophotic project and to secure the participation of DMS students in the planed cruise for the project. The project was entitled "Corals and Sponges as Biological Hotspots of Reactive Oxygen Species in the Mesophotic to Deep Sea Habitats" . The PI of the project, Dr. Colleen Hansel, from Woods Hole Oceanographic Institution, was the person of contact for a science research cruise scheduled for April - May

2023 aboard SOI's research vessel Falkor. Five students from the DMS participated in this unique experience.

- Collaboration agreement with the University of Southern Mississippi (USM) and the Marine Consortium of the University of Louisiana (LUMCON). This link opens collaboration doors in aspects related to oceanography, possibilities to interact with other institutions and the opportunity for all UPR students.
- The Sea Grant College Program has formalized a collaboration agreement with the DMS, through which we will join efforts to increase the impact of both programs in the community with a perspective of education, applied research and marine extension.
- CoHemis Consortium Framework Agreement, between the UPR-Mayagüez and the University of Málaga, the purpose of which is to expand hemispheric collaboration by facilitating institutional and professional relations and faculty and student exchanges. In addition to supporting various investigations and information transfer through conferences and workshops.
- Cooperative Agreement between the Woods Hole Oceanographic Institute and the UPR-Mayagüez for the purpose of promoting education and research through the establishment of academic exchange programs Academic exchange, visits by professors, research staff and students, particularly in association with joint research, workshops. Exchange of publications, scientific materials, academic articles, and research information resulting from joint activities, etc.
- The DMS is a participating member of the Gulf of Mexico University Research Collaborative (GOMURC) which allows us to expand our collaboration ties in oceanographic activities (Letter of Support).
- An MOU was signed between the DMS and the CARICOOS program. It establishes cooperation with infrastructure and logistical support, and an agreement for use of space in Magueyes, and use of DMS boats and diving support for the projects sponsored by the organization. CARICOOS provides several research assistantships for DMS students, and has helped with some equipment and upgrading of infrastructure.
- An understanding agreement is maintained with the University of Rhode Island with which a migratory bird monitoring station was established that will allow the development of studies related to seabirds (Validity: 2019). In the Marine Sciences facilities on Isla Magueyes, the NOAA tide station with older data in this area of the Caribbean is maintained (<https://tidesandcurrents.noaa.gov/stationhome.html?id=9759110>) (Undefined)
- A collaborative agreement is in force under the East Coast Oceanographic Consortium (ECOC) agency to guide and supervise the utilization, operation and administration of a currently active UNOLS research vessel, the R/V Endeavor; to promote cooperation and collaboration in marine science and education.
- The financial aid to our graduate students improved significantly due to external funding linked to new research projects awarded to DMS faculty, and collaborative projects between the DMS and NGOs and other institutions. Fifteen (15) teaching assistantships were funded with institutional funds distributed between the Departments of Biology (11) and Geology (4). Two (2) research assistantships were funded by EcoElectrica (MOU). The total amount of funding for these 17 assistantships was \$66,306.74 (appendix 2).
- Fifty-four (54) research assistantships were funded with external funds provided by research grants awarded to DMS faculty members and other sources (appendix 1). The total amount of funding from was \$174,101.60. A NASA funded project to Dr. R. Armstrong supported (\$11,632.5) nine (9) undergraduate students working in different projects in Magueyes. Fourteen graduate students receive hourly wages (jornal) to assist in different tasks, including research projects and maintenance of the invertebrate collection. The total amount was (\$27,253).

- Productivity in terms of peer-reviewed publications was high again. A total of twenty-two (22) peer-reviewed manuscripts were published in recognized journals, four (4) technical reports were submitted to agencies, and eleven (11) manuscripts (for a total of 41) are under review in recognized journals. Students are listed as senior/co-authors authors in 19 of all the published/submitted manuscripts, which represents a 57% participation.

Department of Math Sciences

- Some of our faculty members has 5 publications accepted, and other 3 are submitted.
- Dr. Luis F. Cáceres has 5 approved proposals.
- Dr. Reyes Ortiz has three projects funded by National Science Foundation.
- Dr. Israel A. Almodovar submitted a proposal to NSF titled *Estimating the number of groups using distribution free methods*.
- Dr. Alcibíades Bustillo Zarate-Subgraduate Investigation- *Constructing 2D Watermarks by Composition*. October 2022- December 2022 CASH SI LREU Program.
- Seven students, under faculty mentoring, participated on conferences, workshops, talks or present posters.

Department of Nursing

- Agreements with the University of Washington, School of Nursing to start a project on global warming and its impact on health, student exchange and collaborative funds to get involved in community education activities, research and socio-cultural experiences.
- Dra. Sheila Mercado presents at the International Education Summit, Chile – “*Educating Generation Z*”
- Dr. Miriam Nieto presents at the Scientific Convention of the American College of Cardiology Puerto Rico – in San Juan PR. Team Cardiovascular Section “Care of the geriatric patient with heart failure”.
- Dr. Abigail Matos presents at the Scientific Convention of the American College of Cardiology Puerto Rico- in San Juan PR Team Cardiovascular Section “Inoca vs. Minoca”
- Dra. Abigail Matos, Dra. Miriam Nieto, were appointed President and Secretary Treasurer of the American College of Cardiology Puerto Rico Cardiovascular Team.
- Working towards collaborative agreements for research and creative work:
 - *Purdue Global, Virtual reality nursing skills (Nursing Administration)*
 - *Westfiel State University College of Nursing: Collaborative agreements towards cultural and student Exchange.*
- Dr. Solangie Pagan Lugo reviewed 17 abstracts for the American Public Health Association Annual Meeting & Expo in Atlanta, GA 2023.
- Webinar Sexual Transmission Infections offered by Dr. Solangie Pagan Lugo, Epidemiologist Northeast Caribbean AIDS Education and Train Center UPR RCM. April 28, 2023.
- Dr. Sheila Mercado presented at the 5th International Congress of Research Interamerican Division (5CIDIA). Wednesday, march 16th, 2023. Her topic was on promotion and safety of fall quality of assessment.
- Faculty participation in the Health fair of Ferries del Caribe, Dominican Republic. March 2023. Professors and students participated offering health promotion activities.
- Publication of article by Dr. Sheila Mercado: *Role of the professional nurse in public policy*. VestigiumUAA, Vol. 8, No1. 2022.

Department of Physics

- Seven (7) ongoing research and creative work projects, 6 funded by National Science Foundation and 1 by Department of Defense.

- Our faculty inform about 111 publications and participation on 25 talks, conferences or posters presentations.
- Ten (10) proposals submitted and 2 are approved.
- Dr. Henri Radovan, UPRM Physics professor and member of North American Nanohertz Observatory for Gravitational Waves (NANOGrav) has announced the first evidence of gravitational wave background.
- Four research collaboration agreements: *Laboratorio de Comunicación Científica between NotiCentro -WAPA TV and Meteorology Program*, Since August 2021; *High Luminosity (HL) LHC CMS Detector Upgrade Project FPIX: Mechanics & Assembly* - Principal Investigator: Sudhir Malik; *NANOGrav collaboration between Physics Department with the North American Nanohertz Observatory for Gravitational Waves (NANOGrav) Physics Frontiers Center*. This partnership looks to advance several key NANOGrav science goals and to increase the participation and retention of minorities in the field of physics. Undergraduate students from UPRM will be involved in research projects of relevance to NANOGrav's mission, mentored at UPRM as well as remotely and onsite at several NANOGrav institutions.
- Institute for Research and Innovation in Software for High Energy Physics (IRIS-HEP) - (Dr. Sudhir Malik), Collaborative Agreements with Princeton University.
- Graduate teaching assistantships total \$86,100.21 during the first semester of the academic year 2022-2023, and \$75,166.85 during the second semester of the academic year 2022-2023. While the graduate research assistantships total was \$53,825.00 for the entire academic year.

Department of Psychology

- Dr. Milagritos González is the PI of the project entitled: Pathway to Success: RUMbos for Success – US Department of Education, Title V. They offer a variety of direct services to the new student's population (tutoring, counseling and education services and psychological services, personal development workshops, among others).
- Dr. Bernadette Delgado is in charge of the overall evaluation of the project titled "Ecosystem to Expand Capabilities and Opportunities for Scholars (EECO Scholars) (NSF EECOS-STEM #1833989). EECOS aims to provide academically talented and low-income UPRM students who were impacted by Hurricane Maria with the financial, academic and socio-emotional support they need to expand their academic, personal and professional capabilities and thus complete their program within institutionally established time limits (retention and student success). Finally, Dr. Delgado also participated in the writing of the following research proposals: Evaluation of the University of Puerto Rico at Mayagüez Coastal Resilience Center (UPRM-CRC) and Co-Design of Integrated Energy and Mobility Hubs for Service and Resiliency.
- Dr. Janet Bonilla is the external evaluator of the program PEARLS "Engineering PEARLS: Program for Engineering Access, Retention and LIATS Success". This program is aimed at helping bachelor's and master's level students in all engineering disciplines successfully complete their programs of study and transition to professional life. Specifically, this program seeks to improve the recruitment, retention, time to graduation and graduation rates of Low Income Academically Talented Students (LIATS).
- Dr. Ana Nieves provides various services and psycho-social-emotional support to women and their children who are survivors of violence. Dr. Nieves works particularly with children and women survivors of domestic violence. She was PI and Co-PI in the following externally funded research proposals: SIEMPREVIVAS Transforming Lives: Integral Services for Autonomy. Federal Department of Justice –VOCA; and, Interdisciplinary Data-Driven Discovery Traineeship, (b) NSF-(NRT).

- The Department of Psychology continued implementing the Undergraduate Research Training Program (Programa de Adiestramiento en Investigación Subgraduada) – PAIS. PAIS is led by doctors Douglas Santos and Janet Bonilla. During the year 2022 – 2023, the graduate students of the Doctoral Program in School Psychology were in charge of the research projects. In total, 7 research projects were developed and a total of 53 undergraduate students from the Department of Psychology participated.
- Dr. Eduardo Lugo participated as Co-PI in the proposal entitled "Opportunities for Distributed Solar to Improve Resilience and Energy Justice in Puerto Rico". U.S. Department of Energy.
- Doctoral Program faculty and graduate students published 5 articles in several peer journals.
- Faculty and graduate students of the Doctoral Program participated in several professional conferences and forums. Highlights include participation in: The Annual Convention of the Puerto Rico Psychological Association and the Convention of the National Association of School Psychologists (NASP) in Denver, CO.

Department of Social Sciences

- Thirty-eight (38) publications from our faculty members, 8 book chapters and 11 presentations.
- "Cuentos desastrosos". Compiled by Diego S. López Burgos and Tania del Mar López Marrero, illustrations by Albert L. Cruz Toro. The compilation consists of seven stories written by undergraduate students of Comparative Literature. I am in talks with the Puerto Rican Foundation for the Humanities to establish a collaboration and publish the stories.
- *Book: Vega Lugo, Ramonita. CÓLERA en Puerto Rico: Impacto de la epidemia en San Germán y Mayagüez, 1856*, Kindle Direct Publishing, Amazon (USA), abril, 2023.

H. To impact our Puerto Rican society

Department of Chemistry

- Welcome to new graduates – August 5, 2022.
- Welcome to new graduate students – August 8, 2022 and January 17, 2023.
- The university held the Open House in October 2022.
- During the summer of 2022, 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

Department of Economics

- Students of the ecological economics course presented research proposals related to the Puerto Rican situation, including blue communities, a government for welfare, solar energy and agricultural lands, and regenerative and circular wastewater treatment.
- Dr. José I. Alameda collaborates as an advisor to the Secretary of Justice of the Government of Puerto Rico. Also, he provides consulting services on economics and planning issues to the Municipality of Mayagüez.
- Dr. Ricardo R. Fuentes served as a member of the Economics Association of Puerto Rico Board of Directors and was elected president of the association for the period 2024-2025.

Department of English

- Five-year project "Cerrando brechas: aprovechamiento, creación y documentación educativas en el CUA-UPRM. Dr. Jocelyn Géliga and Dr. Sandra Soto.

- Proyecto Mi Maria: Surviving the Storm, Voices from Puerto Rico (Haymarket Books), The Untied States: Unraveling National Identity in the Twenty-first Century (Wisconsin UP), “dLOC as Practice: Decolonial Approaches to Listening and Remembering” archipelagos: a journal of Caribbean digital praxis, “A Necessary Tension: Editors, Editing, and Oral History for Social Justice” Oral History Review, and “What’s the Use of Crying? Emotion in Critical Disaster Studies” ASAP/Journal.

Department of Geology

- On 17-December-2022, undergraduate students Anishka Ruiz and Kimberly Trahan co-led a community engagement event in Almirante y Jaguas de Cidra about landslide hazards. They gave an orientation to the community about the SLIDES-PR program, landslide susceptibility maps, and the landslide guide for residents of Puerto Rico.
- On 09-February-2023, students Tania Figueroa and Kimberly Trahan went to Utuado as representatives of the SLIDES-PR project and the Department of Geology to co-organize a focus group on landslide hazards at the UPR-Utuado campus and also meet with the director of the Utuado municipal office of emergency management.
- Puerto Rico Regional Vulnerability Assessment Workshop in Salinas, PR (spring 2023): Undergraduate student Idamis Rodriguez gave an oral presentation with the group from The Ocean Foundation to show the results of the project titled: Developing a scientific and stakeholder-led regional vulnerability assessment in Puerto Rico. Co-authors: Lily Rios-Brady (The Ocean Foundation, Washington, DC), Nias Hernández Montcourt (University of Puerto Rico, Río Piedras), Dylan Álvarez Ramos (University of Puerto Rico, Mayagüez), Melissa Meléndez (University of Hawai’i, Honolulu, Hawai’i), Jannette Ramos García (Puerto Rico Sea Grant), Kaitlyn Lowder (The Ocean Foundation, Washington, DC), Alexis Valauri-Orton (The Ocean Foundation, Washington, DC).
- On July 12, 2022 Prof. Stephen Hughes and students Tania Figueroa, Kiara Cunillera, and Kimberly Trahan along with colleagues from the USGS Landslide Hazards Program installed a new hillslope monitoring station in Naguabo. The station is the 11th of the Puerto Rico Landslide Forecast Network.
- On August 23, 2022 Prof. Stephen Hughes and students Tania Figueroa, Jonathan Pérez, and Victor Ortega along with colleagues from the USGS Landslide Hazards Program installed a new hillslope monitoring station in Naranjito. The station is the 12th of the Puerto Rico Landslide Forecast Network.
- Prof. Stephen Hughes was designated as the co-Leader for an NSF-funded GEER (“Geotechnical Extreme Event Response”) mission here in PR to document geotechnical impacts of Hurricane Fiona.
- On 27-January-2023, the 13th station in the Puerto Rico Landslide Forecast Network was installed in Yauco. Thank you to the students enrolled in GEOL 6105 for your efforts. They are Tania Figueroa, Estefania Vicens, Cesar Rodriguez, Anishka Ruiz, and Kimberly Maisonet.
- On 02-February-2023, Prof. Stephen Hughes traveled to a remote part of Utuado to meet with a local community organization “COSSAO” (Corporación de Servicios de Salud Primaria y Desarrollo Socioeconómico EL OTOAO) to discuss collaboration with the SLIDES-PR landslide program.
- On 24-March-2023 Prof. Stephen Hughes and students Anishka Ruiz, Estefania Vicens, Tania Figueroa, Victor Ortega, and Kimberly Trahan installed the 15th monitoring station of the Puerto Rico Landslide Forecast Network in a remote steep area of the UPR Mayaguez campus property.

- Prof. Stephen Hughes participated in various television interviews following Hurricane Fiona (October-November 2022). These included Fox Weather channel, Noticentro al Amanecer, Cuarto Poder, PrensaRUM, WORA, and WIPR.
- On 01-Apr-2023 Prof. Stephen Hughes gave an invited presentation at the EcoExploratorio in Plaza Las Americas titled "Deslizamientos de tierra y su impacto en la infraestructura".
- On 10-Apr-2023 Prof. Stephen Hughes had an interview with WAPA meteorologist Suheily López about landslide hazards for their upcoming Earth week materials.
- On 23-Apr-2023 undergraduate students Anishka Ruiz and Kimberly Maisonet gave an invited presentation for the EcoExploratorio EXPO Planeta Digital 2023 event that was held in Plaza Las Americas.

Department of Kinesiology

- Collaboration and counseling with the Police Athletic League, Mayagüez Region. Agent Miranda and Sergeant Arroyo. Mayagüez Command (August 2021-present). Dr. Luis O. Del Río.
- Host of World Physical Activity Month. April (2023). Department of Kinesiology. Coordinators: Del Río, L.; Morales, M. and Álvarez, R.
- Host of the Puerto Rico Weightlifting Federation's Weightlifting Tournament. Rafael Mangual Coliseum. May 10th and 20th (2023). Event dedicated to Prof. Edmundo Carrero. Kinesiology Department. Coordinators: Del Río, L. and Álvarez, R.
- Development of a Laboratory to investigate the Sports performance of young soccer players in the Forward Project of the International Soccer Federation. Añasco, PR. (Dr. Luis O. Del Río)
- FIFA-FOOTBALL FOR SCHOOLS Program, Sponsor of the Program at the national level for the third consecutive year. Luis Del Rio (January, 2023).
- Intramural Ultimate Tournament. Invitational for students of the Campus. Prof. Josué Martir and Dr. Carlos Quiñones (April and May 2023).

Department of Marine Sciences

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. The DNRA and the DMS are now working closely to establish usage regulations to ameliorate the human impact (Noise control, speed limits in manati areas, night lighting, carrying capacity in some highly visited localities, etc.) while we finish the Zonification and Management plan for the reserve.

Department of Math Sciences

Mathematical Olympics of Puerto Rico, OMPR: Project directed by Dr. Luis F. Cáceres and co-directed by Dr. Arturo Portnoy, focused on students from grades 3 to 11 at the island level that prepare talented students through Saturday academies and summer camps to represent Puerto Rico in the IBERO Olympics, in the CENTRO Olympics and in the IMO Olympics.

Department of Nursing

Conferences offered to the community by request:

- Educational Healthfair *Sharing love and health – Rural community outreach program, Aguadilla PR*

- Health promotion – Rincon, PR.
- Masis School – Presentation on ITS and consequences, Añasco, PR
- Health promotion, safety and quality of fall prevention – Dr. Sheila Mercado – Bella Vista Hospital
- Professors offered professional conferences to staff of older adults' institutions during the year.
- Students and professors offered health promotion activities to local schools, older adults center, department of education and health fairs for the community.

Internal projects by subject matter experts:

- Puerto Rico Association of Alzheimer and other Related Disorders collaborative presentations
- Head Start & Early Head Start Health Advisor Committee- Hormigueros, PR
- Doctoral dissertation and *Evidence Based Practice Projects*-
- American College of Cardiology- Puerto Rico Chapter
- Departamento de Educación, Escuela Vocacional de Mayagüez – HIPAA
- Colegio de Profesionales Enfermería de PR, leadership appointments in chapter section boards like, education, disaster, forensic, advanced practice.
- Coalition of Nurses for Communities in Disaster (CONCID)
- Epidemiology, UPRM
- Peer Review ACEN

Other 14 activities are presented for the community.

Department of Physics

- On November 10, 2022, the Department of Physics participated in the 2022 UPRM Open House. On March 17, 2023, the Department of Physics participated in “Graduate Studies Open House” in UPRM Student Center.
- For second consecutive year, the Department of Physics participated in Arts & Sciences Summer Camp: “Explora tu Vocación en la Artes y las Ciencias” that was held during June 13-17, 2023 in our Campus.

Department of Psychology

Collaboration with the SIEMPREVIVAS Project directed by professor Luisa Seijo from the Department of Social Sciences. Dr. Nieves works specifically with the children and women survivors of domestic violence.

Department of Social Sciences

During June 19 and 20, 2023, 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.

I. To strengthen school spirit, pride, and identity

Department of 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 American Chemical Society (ACS) student association were the hosts of the ACS Goofy Games during the month of April. There was a great participation of the other 20 chapters around the Island.
- The ACS, also participated in the Chemistry Festival held in San Juan, PR, during the month of April. This was during the celebration of Chemistry Week. The purpose of this festival is to impact the community of the Island and share the knowledge of Chemistry through experiments and other practical activities of a scientific nature. They participated in other 27 activities through this academic year.
- The ACS held a fraternization (Chem-off), as 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. Carlos A. del Valle-González collaborates in an intramural practice with the municipality of Mayaguez. The project is titled Review of Alternatives for the Collective Transportation System in the Autonomous Municipality of Mayagüez (Mayagüez Transit Study 2015).
- Dr. Ivonne del C. Diaz-Rodriguez participated in the seminar titled Strategies for the Development of Communities offered by the UPRM Institute for Community Development (Saturday, February 4, 2023).
- Graduate student Marianna Defendini Torres, from the London School of Economics and former student of the Department of Economics, gave a virtual lecture to students of the ecological economics course, "Equity: from the lens of a gender analysis", May 1, 2023.
- Dr. Ivonne del C. Diaz-Rodriguez in coordination with the UPRM Center for Hemispherical Cooperation in Research and Education in Engineering and Applied Science (CoHemis) and Dr. Ricardo Fuentes-Ramirez organized a panel discussion titled: Alternative Pedagogical Approaches in the Economy. This event took place in Tarzan Hall on Thursday, March 23, 2023.
- The participation of students and faculty of Department of Economics in the Annual Assembly of the Association of Economists of Puerto Rico (AEPR) was coordinated by Dr. Ricardo R. Fuentes Ramirez, where links were established between the UPRM Economics Student Association and that of Rio Piedras, and a position was created to be occupied by a student representative of the Department of Economics in the Board of Directors of the AEPR.
- As part of the collaborative agreement between the Department of Economics and the Puerto Rico Planning Board, several meetings will be coordinated with local and federal agencies to complete the analysis of the critical needs of the Economic and Social Planning Program.
- On Tuesday, October 4, 2022, the conference titled The Economic Consequences of Cabotage Restrictions on Maritime and International Trade was held by Mr. Manuel I. Jiménez Useche, economist and doctoral candidate of the Department of Agricultural Economics of the College of Agriculture of Purdue University. In addition, Dr. Russell Hillberry, Professor of the Department of Agricultural Economics at Purdue University, presented opportunities to pursue graduate studies at that university.
- On Thursday, November 10, 2022, the Open House was held at the UPRM where high school students (grades 11th and 12th) from public and private schools received orientation about UPRM academic programs, including economics. On Wednesday, May 30, 2023 professor Alfredo González Martínez (founder of the Department of Economics, UPRM) was awarded with an honorary doctoral degree (Doctor Honoris Causa). The academic distinction was approved by the Board of Government of the University of Puerto Rico. <https://www.uprm.edu/portada/2023/06/10/maximasdistincionescincocatedraticosrum/>
- On Friday, October 28, 2022 (8:30 am - 5:30 pm) the thirty-eighth Annual Assembly of the Association of Economists of Puerto Rico was held. Recognition was given to Dr. Edwin Irizarry Mora, retired professor of the Department of Economics. In addition, doctors Ricardo

- R. Fuentes Ramírez and Jeffry Valentín Mari and Professor Emilie V. Vaqueira Keller participated as lecturers. Also, María Rodríguez-Carrió and Edith C. Santiago-Mercado, seniors' students of the Department of Economics, participated as lecturers.
- On Thursday, April 20, 2023 the office of the UPRM's Chancellor approved the donation of the professional library of Dr. Alfredo González Martínez. The library eventually would be available at SH-109 in the Efrain Sanchez Hidalgo Building.
 - The Department organized together with CoHemis the conference: Alternative Pedagogical Approaches in the Teaching of Economics. The activity took place on Thursday, March 23 in Tarzan Room at 10:30 am. Dr. Ricardo R. Fuentes-Ramírez, and Dr. Ivonne Diaz-Rodríguez, participated as main speakers.
 - The Department organized the conference: Updating Economics Curricula: The Case for the Master of Economics Program at John Jay College-CUNY. Lecturer: Dr. Ian J. Seda Irizarry, Professor of Economics at John Jay School of Criminal Justice at CUNY. The conference was offered via Zoom on Tuesday, March 28 at 10:30 am and included the participation of Dr. Ricardo R. Fuentes-Ramírez and Dr. Jeffry Valentín-Mari.
 - The Department organized the conference: Measuring the Impact of Changing Political Status on the Economy: Preliminary Findings. Thursday, March 30, 2023 10:30 am - 12:00 pm in the Nursing Amphitheater. Lecturer: Dr. José Caraballo Cueto, Associate Professor Graduate School of Business Administration of the UPR Rio Piedras Campus.
 - The Department organized the conference: The Public Debt Crisis after Covid-19 and the War. Thursday, April 13, 2023 at 10:30 am - 12:00 pm at the Figueroa Chapel Amphitheater. Lecturer: Dr. Martin Guzmán, Economist and researcher at the School of Business of Columbia University, Co-President (together with Dr. Joseph Stiglitz Nobel Prize in Economics 2001) of the Initiative for Policy Dialogue of Columbia University and former Minister of Economy of the Republic of Argentina (2019-2022).
 - As part of efforts to mentor and recruit students, the Department of Economics participates in the second edition of the Arts and Sciences Summer Camp. The camp is organized by the Dean of the College of Arts and Sciences and is titled "Explore Your Calling in the Arts and Sciences." It will take place from June 13 to 17, 2023.
 - On Thursday, April 20, 2023 from 8:00 am to 12:00 pm, the Symposium titled Strategies for Congestion Reduction for Puerto Rico was held at the Civil Engineering Auditorium. Dr. Carlos del Valle González, Associate Professor, gave the conference titled Financial Incentives to Reduce Car Travel.
 - On Friday, May 5, 2023, the Third Congress of Applied Economics of Puerto Rico was held. Activity organized by Dr. Julio C. Hernández Correa, Associate Professor of the Department of Agricultural Economics and Rural Sociology. Dr. Ricardo R. Fuentes Ramírez, Assistant Professor of the Department of Economics, participated as a lecturer in the congress. In addition, students of the courses of ECON 4017: Econometrics and ECON 4392: Research Methods in Economics II presented their respective research projects.

Department of Geology

- Initiation of new members of the Student Geological Society, on September 8, 2022. A large number of students participated, including the 46 new members.
- During the weekend of March 10 to 12, 2023, there was a departmental field trip to the area of Isabela, organized by the Student Geological Society, Prof. Hernán Santos and Prof. Wilson Ramírez, as part of the Annual Symposium of Geology.

Department of Kinesiology

- Soltero, E.; Mendoza, E.; Del Río, L.O.; Silva, M.; Rivera, B.; García, José and Maisonave, W. (2022). Organization of the celebration of the 50th Anniversary of the Foundation of the

Department of Physical Education/Kinesiology of the University of Mayagüez Campus.

- Torres, C. and Morales, M. (2022). New members of “Yo Soy Colegio”, an association of former collegiate athletes that seeks funds to help our athletes. Athletics, Basketball, Volleyball, and Softball have been impacted.
- Álvarez, R. and Del Rio, L.O. (2023). Honor Roll Activity of the Department of Kinesiology.

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, symposia, and workshops, and organizing open houses in the department, music nights and beach cleaning activities.

Department of Physics

Society of Physics Students (SPS) and *Sociedad Meteorológica de PR (SMPR)* offered demonstrations and brief talks to students. Also, they held various social activities, professional's activities, fundraisings and charitable.

Department of Psychology

New Students Orientation Week 2022 – 2023. The various Student Associations, Administrative Staff and professors of the Department of Psychology participated in this activity to welcome and integrate the new students.

J. International Activity

Department of Chemistry

- In the Department of Chemistry, we have 15 international graduate students. Of these 14 are from Colombia and 1 from India.
- In the Department we have 2 international professors. Of these 1 is from Mexico and 1 from Colombia.

Department of Economics

- January 14, 2023 (San Juan): Participation in the presentation of the book "Ecosocial Pacts in Puerto Rico", published in 2021, which includes an essay "Economies for well-being: Models and strategies for a just transition" by Dr. Ivonne Diaz-Rodriguez. Available at <https://pactosecosocialespr.com/ensayos/6-economias-para-el-bienestar-modelos-y-estrategias-para-una-transicion-justa/>. This book, and the art that accompanies its chapters, will also be presented in several international forums:
 - 8th National Meeting on Climate Justice to be held from February 10 in Coimbra, Portugal.
 - On February 21, 2023 at the Institute of Environmental Sciences and Technology (ICTA) in Barcelona Spain.
 - February 25, 2023 at the meeting "Towards a Post-Extractive Culture" in the city of Amsterdam.
- On Tuesday, October 4, 2022, the conference titled The Economic Consequences of Cabotage Restrictions on Maritime and International Trade was held by Mr. Manuel I. Jiménez Useche, economist, and doctoral candidate of the Department of Agricultural Economics of the College of Agriculture of Purdue University. In addition, Dr. Russell Hillberry, Professor of the Department of Agricultural Economics at Purdue University, presented opportunities to pursue graduate studies at that university.

- Several students participated in the UPRM study abroad program, including Fernando Chávez-Vázquez at Complutense University in Madrid and Alejandro Ouslan-Cerritos at University of Salamanca. In addition, Alejandro Ouslan-Cerritos submitted application for the American Economics Association (AEA) Summer Training Program to be held at Howard University in summer 2023. It is important to mention that the economics student Alejandro Ouslan has taught two hours of classes, as an international guest professor, on "The use of Python for purposes of Statistics Applied to Social Sciences" in the Degree of Political Science and Administration of the University of Salamanca.
- Dr. Martín Guzmán, professor of economics at Columbia University, co-chair of the Initiative for Policy Dialogue (initiative of Dr. Joseph Stiglitz, 2001 Economics Nobel Prize) and former Ministry of Economics of the Republic of Argentina (2019 -2022) offered a conference on the public debt crisis on Thursday, April 13, 2023 at 10:30 am (Universal Time) at the Figueroa Chapel Amphitheater.

Department of English

- We have two international students in the department/faculty, from Colombia and Phillipines.
- Participation in international conferences, symposiums, forums, or seminars:
 - Graduate Student: Paola Marie Rodriguez Garcia. April 24-29, 2023. Alexandria, VA. Presented at the NSF Spectrum Week to present research done under the CARSE project.
 - Graduate Student: Sopuruchi Uwakweh. (June 25 to July 5, 2023) International Conference at Pisco, Chiclayo y Ferreñafe, Perú.

Department of Geology

- Number of international faculty in department/faculty: 11 professors (6 PR, 4 USA, 1 Colombia), 1 instructor (PR)
- Jarelys Gonzalez Perez (graduate student) participated in the International Summer Experience in Hydrological and Sociocultural Research, in El Salvador, during the summer 2022. Internship from Michigan Technological University. Supervisors: Drs. Luke Bowman and John Gierke.
- Prof. Lizzette A. Rodríguez participated in the "1st EPOS International Conference - EPOS Meets Africa and Latin America", which took place on July 11-13, at Sal Island, Cape Verde. The meeting was organized by EPOS, "the European Plate Observing System, which is a multidisciplinary, distributed research infrastructure that facilitates the integrated use of data, data products, and facilities from the solid Earth science community in Europe" (<https://www.epos-eu.org/about-epos>).
- Prof. Lizzette A. Rodríguez participated in the General Assembly of the Latin American Association of Volcanology on December 2, 2022.
- The annual Departmental field trip took place from April 2-10, 2023, in Costa Rica. It was led by Prof. Lizzette A. Rodríguez and included 5 graduate students, 18 undergraduate students, and 1 alumnus. The field trip was organized and led in collaboration with Carlos Ramírez, volcanologist from OVSICORI, and Yemerith Alpizar, volcanologist from the Universidad Técnica Nacional.

Department of Kinesiology

- Alvarez, R. (November, 2022) INSEP International Congress. Paris, France.
- Alvarez, R. (July, 2022) International Olympic Academy. Olimpia, Grece.
- Del Rio, L.O. (April, 2022) FIFA/CIES International Meetings. CIES/RUM. Lima, Peru.

- Figueroa, I. (November, 2022) International Symposium on Physical Activity Adapted, Medellin Colombia

Department of Marine Sciences

- During the academic year 2022-23 we had few international students. Two masters (one male one female) and one Ph.D (female) students were from Colombia, two male Ph.D students were from Mexico, one female Ph.D student was from Ecuador and one from Costa Rica.
- Three of the faculty members are originally from foreign countries, two from Venezuela and one from Greece.

Department of Math Sciences

- The Department of Mathematical Sciences has an internationally varied Faculty. Currently, we have 17 international professors and 21 graduate students who teach courses and workshops.
- Some of our faculty members participated on 14 international workshops, conferences or oral presentations.

Department of Physics

- Number of international faculty: 8 tenure track and 3 adjuncts.
- On average, the program of master's in physics had 9 students from Puerto Rico, 11 students from Colombia, 2 students from Ukraine, and 4 students from Perú.
- All the Department's publications from the international collaborations NANOgrav, DUNE and CMS have been included in point G (To strengthen research and competitive creative endeavors) above.