

University of Puerto Rico at Cayey Research Initiatives and Grant Readiness

The University of Puerto Rico at Cayey promotes a model that integrates research, creation, and community service with an interdisciplinary focus. The faculty is highly productive, with a large amount of publications, international and national recognition for their research, and a vast number of approved grants and fellowships. To access the list of faculty publications, please see <https://cayey.upr.edu/publicacionesfacultad/>.

The Institute of Interdisciplinary Research (IIR) serves as a support system for the multi-faceted projects taking place in research on campus and abroad. The IIR is a unit of the Office of the Dean of Academic Affairs, promoting academic research and creation. The goal of the IIR is to generate knowledge that is relevant to the country and above all, for the communities in the service region of the UPR-C. It supports research initiatives of the faculty and students, creates opportunities for meetings, symposiums, talks and workshops. The IIR is committed to, technical assistance to researchers, students and the affiliated community. There is a great interest in disseminating outcomes, results, and findings. For a complete listing of services, facilities and opportunities of the IIR, please see <https://www.upr.edu/iii-cayey/>

Approximately 65% of those students engaged in research (more than 200) are affiliated to the Institute of Interdisciplinary Research (IIR). The IIR has procured more than 14.5 million dollars in external funds since 2004 for research and research training programs. Its mission is to promote research through regional, interdisciplinary and applied projects, while supporting the professional development of UPR-C professors and students. In the past 5 years, the IIR has supported more than 75 research projects in the areas of health, biomedical research, natural resources, education, stigma and social inequality, and provided research experiences for over 1,000 undergraduates students. The graduation rates of students who participate in IIR programs fluctuate between 73.2% and 80.3% (at least 28 points higher than the institutional graduation rate of 45%). The vast majority of these students (81%) apply to graduate school and 87% of those report being accepted. For more information about undergraduate research at UPR-C, please visit <https://cayey.upr.edu/est-act-en-invest/>

The IIR's alliance with national professional networks such as the NYU based Faculty Resource Network (FRN), Ciencia.PR, the NIH sponsored National Research Mentoring Network (NRMN) complement and expand IIR resources for faculty and students at UPR-C. The IIR also has a Census Information Center (CIC) the only active center of this type in the Island of Puerto Rico. The CIC provides local access, education, and technical assistance on census data for research, planning, and decision-making to underserved communities. To know more about the CIC, visit <https://www.upr.edu/iii-cayey/centro-informacion-censal/>.

For more information on these and other programs hosted by the IIR, please visit <https://www.upr.edu/iii-cayey/wp-content/uploads/sites/68/2018/02/Brochure-III-Rev30ene2018-ART.pdf>

Research embedded in the Curriculum

g. For example, in the Chemistry and Biology Departments, such courses have an impact on over 100 students annually. The IIR developed a course (INTD 4116) that allows more than 200 undergraduate students to obtain such experiences annually, by working as a research assistant on a mentor's research project. Students from any discipline can enroll and faculty from all disciplines is encouraged to enroll as many students as they can. Currently, more than a third of UPR -Cayey graduates have had research experience facilitated by this interdisciplinary mechanism. Faculty also benefit from the input students provide. The course is flexible but its structure also facilitates that experts from the industry provide an organized mentored experience for students. The outcomes are presented in an annual symposium, that both allow student professional presentation experiences as well as the opportunity for meeting fellow researchers. For more information on students engaged in research experiences, please visit <https://cayey.upr.edu/est-act-en-invest/>

Grant Readiness

The success that UPR-C has had with procuring and managing external funds and grant initiatives for research is due in part to the values of teamwork, the interdisciplinary core and the institutional engagement in high impact practices for students. The commitment to community service also allows for collaborative opportunities for research in the field in the varied disciplines offered at the institution. The institution's research mission is fully supported by the office of External Funding and the IIR for pre and post award management (<https://cayey.upr.edu/rectoria/recursos-externos/>). In addition, the Institutional Review Board (IRB) is in place to ensure that all research involving human subjects is performed according to all governing laws and protocols (<https://cayey.upr.edu/institutional-review-board-irb/>). The UPR system as a whole is a partner in collaborative research initiatives as well as in promoting undergraduate research.

Currently, the IIR has an administrative staff of 6 full time administrative personnel including a training coordinator (*PhD in Psychology*) and an IT education specialist who also serves as Webmaster (*EdD, Curriculum and Education through IT*). The IIR also has one part-time statistician and more than 30 affiliate researchers.

Facilities

The Arturo Morales Carrión, the Miguel Meléndez Muñoz, the New Science Building and the Carlos Iñiguez buildings hold a total of 79 classrooms. The Miguel Meléndez Muñoz building contains all of the science classrooms and the majority of the research facilities in science. The New Natural Sciences (NNS) building houses 20 state-of-the-art science laboratories and 3

classrooms. As a consequence of the inauguration of the NNS, space in the Miguel Meléndez Muñoz became available, thus increasing the research capacity for professors as well as students who are actively involved in a variety of research initiatives such as the Research Initiative for Scientific Enhancement (RISE), Howard Hughes, and Bioinformatics research.

The IIR facilities include: four offices that accommodate five administrative personnel and four researchers, computer labs and meeting rooms. In addition, the IIR has three (3) research laboratories equipped with a total of 18 computers with research software and statistical programs, telecommunications equipment and meeting/training spaces.

Support for Research in the Institution

UPR-C hosts several initiatives to further promote and disseminate research undertaken by faculty. The Institutional Fund for Research Development (FIDI), under the Dean of Administrative Affairs, is a yearly competition for full-time UPR-C faculty, intended to promote research, creative projects, and community service. In addition to the fund, the research policies in place include incentives for tenure-track faculty that include start-up funds and a mentoring program for external funding. The IIR continually offers workshops to enhance early-stage investigator support.

Dissemination

The IIR hosts an annual campus-wide research and creation symposium, where students and professors share their findings and present their projects. Faculty also present the progress of their investigations and creative projects annually in the Professional Development Seminar hosted by the Dean of Academic Affairs.

The UPR-C publishes several journals, including *Revista Cayey*, dedicated to interdisciplinary topics, *Cuadernos del III*, which informs and reports about research being conducted at UPR-C, and *Tinta nueva*, a creative writing journal of the Department of Hispanic Studies.

In the last four years, UPR-C faculty has published more than 177 articles, at a rate of 44 per year. Faculty publications may be found at <https://cayey.upr.edu/publicacionesfacultad/>.