

Department of Marine Sciences

Strategic Plan 2014-2022

2014-2015 Strategic Plan Committee

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This program was prepared with the input of the Marine Sciences Department Faculty and Ratified at a Faculty Meeting on March 2015.



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Strategic Plan Committee

Strategic Plan 2014 – 2022

Vision:

- To increase knowledge of the marine environment by means of scientific research, and transmitting this knowledge to the larger academic community.
- To contribute to social and economic development of Puerto Rico through the conservation and rational uses of the marine environment.
- To provide leadership and serve as a model department for graduate education on the Mayagüez Campus.

Mission:

The mission of the Department of Marine Sciences is to promote a greater understanding of the marine environment within the core areas of biological oceanography, physical oceanography, chemical oceanography and geological oceanography. The specific goals of the department are to increase knowledge in the marine sciences, to train graduate students in the marine sciences, and to serve the community. Original research by both faculty and students is the central focus of the department's program, emphasizes the complementary and mutualistic relationship among these goals.

Objective #1: Promote the development of a research oriented strategy for graduate education and increase quality of education.

Strategies:

- Attract and hire quality faculty, replacing the positions lost, while striving to achieve a diverse composition in the Department.
- Strengthen links with other academic/research components within RUM.
- Provide teaching experience through Graduate Teaching Assistantships and support research assistantships.
- Increase external funding for assistantships, supplies and equipment for research and instruction.
- Develop efficient administrative/reporting/evaluation procedures appropriate to research/graduate education.
- Increase teaching credits for graduate courses.

- Give greater weight within semester plans to mentoring and promote inclusion of mentoring as evaluation criteria.
- Maintain a continuous process of curriculum revision.

Metrics:

- Number and composition of Faculty (gender balance, nationalities, discipline).
- Number of formal agreements with other components of UPRM.
- Number of teaching and research assistantships.
- Number of thesis/dissertations funded primarily by external funds.
- Number and value of external grants.
- Number of new courses offered.

Objective #2: Enhance program relevance and reach.

Strategies:

- Broaden educational opportunities by establishing collaborative interdisciplinary programs across departments and faculties, e.g., Applied Ocean Sciences and Engineering, Earth System Science, Coastal Zone Management.
- Teach courses in Mayagüez Campus at the 5000 level.
- Develop web-based teaching and learning tools and maintain and improve distance-learning technology for courses and seminars.
- Enhance community outreach programs and develop continuing education program.

Metrics:

- Number and nature of collaborative interdisciplinary programs.
- Number of 5000 courses offered.
- Number and nature of distance-learning products.
- Number of continuing education courses offered.

Objective #3: Increase the level of external support from research grants.

Strategies:

- Enforce rigorous hiring/tenure/promotion and evaluation standards focused on external funding.

- Promote linking release time to a researcher's productivity and funded research record.
- Increase grants administration support in the department.

Metrics:

- Implementation of new standards for hiring/tenure/promotion/evaluation.
- Hours of release time granted to professors in recognition of productivity.
- Number of new hires to assist in grants administration.
- Number and amount of research grants.

Objective #4: Increase the quality and number of publications, services and products by faculty and students.

Strategies:

- Enforce rigorous hiring/tenure/promotion and evaluation standards focused on publications.
- Link faculty support to their productivity record.
- Link release time to productivity in publishing, including release time granted for sustained publication record.
- Expand our library-reference facilities and subscription, especially those of digitized format.
- Enhance technical support within the department, in the areas of computers, technical software, equipment and communications.

Metrics:

- Number of new publications, services and products offered.
- Number and quality of new library resources procured including electronic products.
- Number and quality of electronic resources.

Objective #5: Promote partnerships and applied research.

Strategies:

- Increase cooperative research agreements with other institutions external to UPRM, government agencies, and other UPR departments, faculties.
- Increase the level of collaboration and projects with outside researchers.

- Enhance program for visiting researchers, professors and students.
- Secure institutional support for invited speakers and short courses.
- Strengthen our role in applied research areas of local and regional relevance.

Metrics:

- Number of agreements in place with institutions external to UPRM including government agencies.
- Steps taken to enhance the current visiting researchers program.
- Number of new invited speakers and short courses.
- Number of applied research projects in place.

Objective #6: Optimize degree requirements and remove barriers to reduce time to graduation.

Strategies:

- Reevaluate number of credits for PhD and MS degrees.
- Maintain a continuous review of credit loads and curriculum.
- Compare DMS credit loads to that of other similar programs.
- Change core courses to four credits.
- Actively seek new sources of support for DMS students.
- Work to extend time limits on externally funded assistantships.
- Secure institutional research, teaching, and service assistantships.

Metrics:

- Revised credit requirements for MS and PhD degrees.
- Credit load aligned to those of comparable institutions.
- Core courses revised to 4 credits each.
- Extended time limits on externally funded assistantships.
- Number and nature of new sources of support to graduate students.

Objective #7: Enhance our applicant base and develop “REU” pipelines

Strategies:

- Develop pipelines with existing programs at UPRM and other institutions.
- Promote recruitment from other academic institutions.
- Increase funding available to attract and retain top students.

- Advertise our program effectively.
- Increase recruitment of students by conducting summer courses and workshops for undergraduate and/or high school honor students.
- Promote teaching general courses in Mayaguez.

Metrics:

- Established pipelines for student recruitment.
- Number of introductory courses on offer available to UPRM undergraduates.
- Number and nature of summer workshops held.
- Sustained visits to colleges and universities on island.
- Number of general courses taught in Mayaguez.

Objective #8: Increase communication and collaboration between our Department, industry and government agencies. Provide expertise for government planning and policy.

Strategies:

- Identify ways by which the marine sciences can promote the socio-economic development of Puerto Rico.
- Maintain DMS participation on government and industrial advisory boards and committees.
- Provide scientific advice to government agencies.
- Create an Outreach/Education position to develop an outreach program.

Metrics:

- Number of positions on external boards occupied by DMS faculty.
- Creation of an Outreach/Education position.
- Number of instances in which DMS staff offers expert advice to government agencies.