MARB - MARINE BIOLOGY

MARB 608 Advanced Methods for Environmental Data Analysis

Credits 3. 3 Lecture Hours. Exploration of fundamental statistical methods that cut across environmental disciplines; basic terms, concepts, theories in statistics, and fundamental statistical techniques for marine sciences; introduction to quantitative techniques designed specifically to meet the needs of environmental sciences and related fields; application of quantitative methods in research using R Studios. **Prerequisites:** Graduate classification.

MARB 610 Professional Development

Credits 3. 3 Lecture Hours. Course will cover topics including proposal and manuscript development, the peer review process, proposal writing and speaking excercises, preparing oral and poster presentations, developing questions for quizzes and midterms, and library database management. Class discussions will include constructive critiques of participants' experimental designs, analytical approaches and scientific writing. **Prerequisite:** Graduate classification or approval of instructor.

MARB 618 Marine Science of the Pacific Rim

Credits 3. 3 Lecture Hours. Course intended for students interested in conducting research on the marine biology or fisheries of the Pacific Rim countries; tailored to specific interests of individual students; course involves directed readings, participation in the student's research project, discussions with the instructor, and final report for possible publication. **Prerequisite:** Graduate status or approval of instructor.

MARB 625 Human Impacts in the Marine Environment

Credits 3. 3 Lecture Hours. Topics include human impacts in the marine environment, including pollution, fisheries, development and exploration, noise, and climate change; discussion of local, national, and international issues, focusing on the Gulf of Mexico; issues framed through management, conservation, and policy actions, evaluating ecological and economic impacts and trade-offs. **Prerequisites:** Graduate classification or approval of instructor.

MARB 640 Ecosystem Functions in Marine Environments

Credits 3. 3 Lecture Hours. Advanced study of ecological processes in marine environments, with an emphasis on the investigation of the interactions between organisms and physical processes that regulate marine ecosystem functions. **Prerequisite:** Graduate standing.

MARB 659 Caribbean Marine Biology

Credits 3. 3 Lecture Hours. Natural history of the Caribbean region with a focus on shallow-water habitats, current environmental concerns and conservation efforts, as well as practical aspects of conducting marine biological field work in the Caribbean region. **Prerequisites:** Graduate classification or approval by instructor.

MARB 668 Marine Evolutionary Biology

Credits 3. 3 Lecture Hours. Lecture, readings, and discussions on advanced evolutionary topics including history of evolutionary thought, organic evolution, evolutionary methods, and modern applications to organismal evolutionary questions. Students will lead and participate in journal club style discussion of selected recent literature. **Prerequisite:** Graduate standing.

MARB 669 Adaptations in Extreme Environments

Credits 3. 3 Lecture Hours. Key metabolic and physiological innovations of extremophile organisms; topics include the molecular biology, biochemistry and physiology of organisms living in extreme environments. **Prerequisites:** Graduate classification or approval of instructor.

MARB 681 Seminar in Marine Biology

Credit 1. 1 Lecture Hour. Detailed reports on specific topics within the field of marine biology. Students may register in no more than two sections of this course in a given semester. **Prerequisite:** Graduate Standing.

MARB 684 Professional Internship

Credits 1 to 9. 1 to 9 Other Hours. On the job training in the field of marine biology. **Prerequisites:** Graduate standing; approval of instructor.

MARB 685 Directed Studies

Credits 1 to 6. 1 to 6 Other Hours. Limited investigations in fields other than those chosen for the thesis or dissertation topic. May be repeated for credit. **Prerequisites:** Graduate standing; approval of instructor.

MARB 689 Special Topics in

Credits 1 to 4. 1 to 4 Lecture Hours. Selected topics in an identified area of marine biology. **Prerequisites:** Graduate standing; approval of instructor.

MARB 691 Research for Thesis or Dissertation

Credits 1 to 9. 1 to 9 Other Hours. MARB 691 is the designated field and/or laboratory research leading to the M.S. or Ph.D. degree. MARB 691 may be offered by any faculty member in MARB and may be offered as many times as necessary in a given semester. MARB 691 may be repeated for credit by a student. **Prerequisites:** Graduate standing; approval of instructor.

MARB 693 Professional Study

Credits 1 to 3. 1 to 3 Other Hours. Guidance for preparation of professional paper in marine biology, including literature searchers, annotated bibliography, figures, tables, citations and references; preparation for final exam. May be taken three times for credit. **Prerequisites:** MARB non-thesis and approval of instructor.