

From: Katie Wood
Subject: Summer courses: Duke University Marine Laboratory - registration is open

Greetings!

The Duke University Marine Lab is accepting enrollments for the summer - see below for details.

Requests for [tuition scholarships](#) are being accepted through April 1.

Duke University Marine Lab Integrated Marine Conservation Program
Summer Term II: July 9- August 10, 2018

Tuesday/Friday courses:

- **Drones in Marine Biology, Ecology and Conservation**

Duke faculty: Dave Johnston

The use of unoccupied aircraft systems (UAS) is changing how marine scientists collect data on animals and the environments they inhabit. This course introduces students to the basics of using UAS in marine environments, presenting examples of existing and emerging applications, detailing the types of sensors used for marine applications, describes the sampling complexities of the marine environment, and provides an overview of typical workflows and data management. Details on regulatory and permitting requirements to fly UAS and legally and safely are also covered. The lab portion of the course will focus on basic aeronautics, flight planning and simulations, and the design, assembly, operation and maintenance of unoccupied aerial vehicles. (Graduate and Undergraduate registration numbers are available) ENV 335LA/ENV 735LA. For additional information on Duke's new Marine Robotics & Remote Sensing Facility, visit the [website](#). 3 Duke credits.

- **Conservation Biology & Policy**

Duke faculty: Doug Nowacek, Grant Murray, Paul Greenberg

We are excited for author Paul Greenberg's return to the Conservation Biology and Policy course this summer! Immersion in marine conservation biology and policy. Basic tools of marine conservation for 21st Century society intertwined with current issue modules (e.g., fisheries/aquaculture). Hands-on, team-based, experiential learning w/meaningful faculty-student engagement. Phenomena affecting maintenance and loss of biodiversity (climate change, habitat destruction); key concepts of social science and law for instituting conservation policy; unique experiential learning highlighting ecological, economic, cultural, and institutional complexity associated with current conservation issues. Effective writing will be a core focus of this five week course. BIO 270A/ENV 709A. 3 Duke credits.

Monday/Wednesday/Friday courses (can be paired with one course listed above)

- **Biology and Conservation of Sea Turtles**

Duke faculty: Wendy Dow-Piniak, Matthew Godfrey

Essential biology of sea turtles (evolution, anatomy, physiology, behavior, life history, population dynamics) and their conservation needs; emphasis on their role in marine ecosystem structure and function. Basic ecological concepts integrated with related topics

including the conservation and management of endangered species, the contributions of technology to the management of migratory marine species, the role of research in national and international law and policy, and the veterinary aspects of conservation. Includes laboratory and field experience with animals and with their habitat requirements. BIO 375LA/ENV 777LA. 4 Duke credits.

- **Biology and Conservation of Marine Mammals**

Duke faculty: Renee Albertson, Andy Read

The biology of cetaceans, pinnipeds, sirenians, sea otters, and sea birds. Topics covered include the diversity, evolution, ecology, and behavior of marine mammals and their interactions with humans. Detailed consideration given to the adaptations that allow these mammals to live in the sea. Evaluation of the scientific, ethical, and aesthetic factors influencing societal attitudes toward these animals and of their conservation management in light of domestic legislation and international treaties. Laboratory and field exercises consider social organization, behavior, ecology, communication, and anatomy of local bottlenose dolphins. This field-intensive course covers the biology, management and conservation of marine mammals and sea birds. Detailed consideration is given to adaptation, ecology and conservation. Laboratory and field exercises address behavior, ecology, and communication of local populations of marine mammal and seabirds. The course is suitable for both undergraduate and graduate students. BIO 376LA/ENV 776LA. 4 Duke credits.

- **Marine Ecology**

Duke faculty: Mike Kingston

Factors that influence the distribution, abundance, and diversity of marine organisms. Course structure integrates lectures, field excursions, lab exercises and an independent project. Lecture topics include physical characteristics of marine systems, adaptation to environment, species interactions, biogeography, larval recruitment, and biodiversity and conservation of communities found in rocky shores, tidal flats, beaches, marshes, mangrove, coral reefs, and subtidal areas. BIO 273LA/773LA. 4 Duke credits.

For additional information: please visit our web pages:

- For graduate students: <https://nicholas.duke.edu/marinelab/programs/graduate/summerII>
- For undergraduate students: <https://nicholas.duke.edu/marinelab/programs/undergraduate/summerII>

Tuition & Fees are available on our website. These courses are appropriate for undergraduate, postbaccs, graduate students & professionals. Students will receive a transcript from Duke University at the conclusion of the summer.

To enroll: [click here](#).

Three global fellowships are available for this summer deadline 23 March - Check our [Global Fellows](#) page for details.

Cheers,
Katie

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