

## **Ocean Optics Summer Class:**

### **Application of remote and in-situ ocean optical measurements to ocean biogeochemistry**

**July 2 – 20, 2007 at the Darling Marine Center**

An intensive three-week, cross-disciplinary, graduate-level course in Optical Oceanography will be offered at the University of Maine, Darling Marine Center in summer 2007. This class is a continuation of the Optical Oceanography course first offered at the Friday Harbor Laboratories in 1985 and more recently at the Darling Center. Past graduates are many of today's leaders in oceanography.

The major theme of the course is the application of remote and in-situ ocean optical measurements to ocean biogeochemistry. The underlying rationale is that optical measurements serve as proxies for important biogeochemical entities – including marine phytoplankton, dissolved organics, and suspended sediment particles. The course will provide students with a fundamental knowledge of ocean optics and sensor technology that will enable them to interpret optical data in context of ocean biogeochemistry. The course is sponsored by NASA and the University of Maine, with the goal of preparing a new generation of oceanographers trained in the use of optics to study the oceans.

#### **Course elements include:**

- lectures on the basic theory of the light interaction with matter in aquatic environments, inversions of ocean color remote sensing, sensor design and function, and ocean biogeochemistry;
- laboratory sessions using optical instrumentation and radiative transfer software;
- critical discussions of concepts and key papers;
- field sampling of optical and biogeochemical variables in the environmentally diverse waters of coastal Maine;
- analysis of optical and biogeochemical data sets; and
- collaborative student projects.

**Instructors:** Emmanuel Boss, Mary Jane Perry, Collin Roesler and Curtis Mobley

**Dates:** July 2– 20, 2007

**Costs:** Tuition, room and board will be covered through a grant for participants associated with US institutions. Accepted foreign participants will be charged room and board (\$1200) and tuition (\$655, if interested in taking the class for credit).

Registration deadline: March 15, 2007, notification by April 1, 2007.

**Acceptance criteria:** likely impact of the class on the individual's career, transcripts, letter from the academic advisor/supervisor, and diversity. While the majority of the class will likely be composed of early career graduate students, advanced students and post-doctoral fellows will be considered for admission.

**Registration:** <http://server.dmc.maine.edu/courses.html>