NASA Sponsored Workshop on Calibration and Validation of Ocean Color Remote Sensing.

June 12 – July 7th, 2023, Bowdoin College, Schiller Coastal Studies Center (SCSC), Orr's Island, Maine

An intensive four-week, cross-disciplinary, graduate-level workshop in optical oceanography will be offered at Bowdoin College's SCSC. This workshop is the latest version of the optical oceanography course first offered at the Friday Harbor Laboratories in 1985, then starting in 2001 at the Darling Marine Center, and since 2021 at the SCSC. Past graduates include many of today's leaders in oceanography.

The major theme of the workshop is calibration and validation of ocean color remote sensing. The course will provide students with a fundamental knowledge of ocean optics and optical sensor technology that will enable them to make quality measurements, assess the uncertainties associated with the measurements, and compare these data with remotely sensed ocean color measurements and derived products. The course is sponsored by NASA, the University of Maine and Bowdoin College, 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; ocean color remote sensing and its inversion; optical sensor design and function; optical approaches to ocean biogeochemistry; computation and propagation of measurement uncertainties.
- laboratory sessions for hands-on work with optical instrumentation and training in radiative transfer software.
- 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.

See:
http://misclab.umeoce.maine.edu/OceanOpticsClass2021/, http://misclab.umeoce.maine.edu/OceanOpticsClass2019/ and http://misclab.umeoce.maine.edu/OceanOpticsClass2017/ for previous class content and activities.

Instructors: Emmanuel Boss and Collin Roesler (coordinators), Ivona Cetinić, Meg Estapa, Andrew Barnard, Kelsey Bisson and Jeremy Werdell with Charlotte Begouen Demeaux and Patrick Gray as the teaching assistants and guest lectures by Optics Class alumni.

Dates: June 12-July 7, 2023 (arrive June 11, depart July 8th)

Costs: Room and board, as well as graduate course credits for interested students through the University of Maine will be covered through a grant for qualified participants.

Application Deadline: March 15th, 2023

Notification by: April 15, 2023

To apply: Submit the following in pdf format to opticaloceanography@maine.edu: (1) a recent transcript, (2) a current CV (two-page maximum), (3) a letter from your advisor (or supervisor), and (4) a one-page statement of how you anticipate that this course will contribute to your professional development

We are committed to bringing a cohort of students together whose background, experiences, and training result in diversity of interest, ideas, and skills from which everyone benefits.