Course advertisement

NASA Sponsored Workshop on Calibration and Validation of Ocean Color Remote Sensing – Apply by February 15, 2025

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

Class dates: May 18 - Jun 14, 2025
University of Maine, Darling Marine Center, Walpole, Maine, USA

An intensive four-week, cross-disciplinary, graduate-level workshop in optical oceanography will be offered at the University of Maine's Darling Marine Center (DMC). This workshop is the latest version of the optical oceanography course first offered at the Friday Harbor Laboratories in 1985, and since then in coastal Maine at the DMC and at Bowdoin College's Schiller Coastal Studies Center. 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 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; 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
- Collaborative student projects

See previous class content and activities here:
https://misclab.umeoce.maine.edu/OceanOpticsClass2023/

Instructional team: Meg Estapa and Patrick Gray (UMaine; co-coordinators), Kelsey Bisson (NASA), Ivona Cetinić (NASA), Ali Chase (UW-APL), Sasha Kramer (MBARI), Wayne Slade (Harbor Branch) and Jeremy Werdell (NASA).

Dates: May 19 - June 13, 2025 (arrive May 18, depart June 14)

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: February 15th, 2025

Notification by: March 15, 2025

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.