This page covers the Fall 2023 UCSC Scientific Diving class. It lists the requirements, costs, scheduling, and alternatives. This is a three-unit course and the class permission codes will be given out at the first lecture. As you read this, remember that everything is subject to change.

**Applications** for the course will be reviewed and spots will be allocated based on the relative need of each student. Priority is given to those that need scientific diving certification to pursue their research or to complete their degree. Typically, faculty and graduate students have highest priority followed by undergraduates and staff. Non-students will only be allowed in the class if there is space and they have enrolled through concurrent enrollment. Applications are available online at [https://ehs.ucsc.edu/programs/diving-boating](https://ehs.ucsc.edu/programs/diving-boating) and are due along with the Equipment List (also available online) by **July 1, 2023** – you can drop them off at Long Marine Lab, OHB, room 109. If you have questions, contact Dave Benet at benet@ucsc.edu or 831-459-5567.

**The Lab fee** is normally $440, but is likely to be reduced to $140 due to available awards TBD. These will automatically post to your account once you are enrolled. This fee includes an AAUS scientific diver card, individual membership to AAUS, dive slate, transportation to dive sites, air fills, cylinders, and sampling gear use. NAUI Nitrox certification will be given to those that want it for an additional $65** to be paid on the first day of class.

**The Scientific Diving Physical** must be completed and approved by the UCSC Student Health Center before the class begins. A physical could take up to a month to complete, so have the physical done as soon as possible. You must get the medical forms from the UCSC Diving Safety website before going to see the physician. There are two medical packets on the website; use the UCSC Physical and ignore the NOAA Physical. Physicians may require additional tests and exams so give yourself plenty of time to complete this. Please check with the Student Health Center for current costs. If you have your exam done by your private physician, it must then be reviewed and approved by a UCSC clinician. There is usually a small fee (~$20) for this. This physical is good for 5 years, under the age of 40.

**Course prerequisites** include Advanced and Rescue Diver certifications, copies of your last 12 dive logs, evidence of diving experience within the last 6 months (preferably in temperate ocean conditions), a "UCSC Scientific diving physical", current CPR/AED/First Aid certification, Oxygen Administration certification, evidence of medical insurance that covers diving injuries, DAN membership, and some of your own equipment (details below). You must also pass the water skills evaluations (swimming, skin, and scuba diving skills) during the first pool session as well as take the AAUS scientific diver eLearning course and pass the final exam prior to the first day of the course. The scientific diving class will be limited to 12 students due to logistical constraints and to maintain a high-quality training experience.

**Equipment:** You are highly encouraged to provide all your own equipment for the class. We encourage you to use your own gear, if possible, that way you complete your training and gain as much experience as possible in your own gear throughout the class. Due to the high costs of equipment, the EEB Dept has sets of regulators, BCDs, gauges and dive computers that are available for you to use during the class only. If you wish to borrow EEB gear for the course, please make arrangements with the course instructor prior to the application deadline above. If using your own equipment, your BCD (must have a safety whistle), regulators, dive computer and gauges (compass, pressure gauge, depth gauge or dive computer) must be inspected by the Diving Safety Program prior to use in the class. We also need to see a hard copy of your dive computer manual. Gear must be turned in for inspection by **August 1st, 2023**. You can do this by putting your gear in a clearly labeled (name and email) bag or bin and dropping it off at the front desk of the Ocean Health Building (OHB), M-F, 9a-4p. Cylinders will be provided by us for the duration of the class. Additional equipment required for the course includes thermal protection appropriate for 45-50F water, a webbing weight belt (for pool work), mask, snorkel, gloves, booties, fins, cutting device, dive light, save-a-dive kit, gear bin ("Action Packer" recommended), and a large mesh bag to
transport and manage gear on small boats. NAUI 2019 dive tables will be supplied for use on class dives. See Rodale's Scuba Diving web page for suggestions on gear: http://www.scubadiving.com as well as our suggestions listed on the DSP website (Equipment Hints).

CLASS ORGANIZATION

**Pool Sessions**
There will be 5 pool sessions during the quarter, see the calendar for specific dates. You must attend all pool sessions to be considered for the class. The first pool sessions will be dedicated to water skills evaluations and gear familiarization. Pool tests will include but not be limited to:

<table>
<thead>
<tr>
<th>Swim Skills</th>
<th>Freediving / Snorkeling Skills</th>
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<tbody>
<tr>
<td>450 yard swim under 12 minutes</td>
<td>900 yard skin swim under 20 minutes</td>
</tr>
<tr>
<td>Tread water for 10 minutes</td>
<td>Rescue of skin diver</td>
</tr>
<tr>
<td>Transport another person 25 yards</td>
<td>50 yards underwater on three breaths*</td>
</tr>
<tr>
<td>25 yard swim underwater on one breath*</td>
<td>Weight belt ditch and recovery – 10’ depth*</td>
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</table>

* breath-hold skills to be evaluated later in the course

**Scuba Tests**
- CESA (25 yd horizontal)
- U/W gear exchange with buddy
- Complete scuba rescue
- Alternate air source (octopus) 25 yd without mask as donor and recipient
- Scuba Ditch and Recovery
- Bailout (enter water with all gear in hand, turn on air and put on all gear)
- BC oral inflate, remove and replace power inflator

All water skills must be passed to continue in this course. It is recommended that you practice these skills before the course begins.

**Ocean Sessions**
There will be full day, local ocean sessions during the quarter. And at the end of the quarter there will be the field practical portion of the course (see calendar for dive dates).

**Lectures**
All lectures will be held in OHB 118 (see the calendar for dates).

**Texts**
The primary source of information will be the online AAUS scientific diving course.

**Alternatives to the Spring Class**
1. Moss Landing Marine Laboratory offers a scientific diving course in August - contact Diana Steller at dsteller@mlml.calstate.edu - as does UC Davis at Bodega Marine Lab – contact Jason Herum jsherum@ucdavis.edu - as does University of Washington at Friday Harbor Marine Lab – contact Pema Kitaeff pema@uw.edu for more information.

2. There will be a UCSC Spring 2024 scientific diving course which is offered over the duration of the spring academic quarter, contact us for more information.