

MARINE STUDIES INITIATIVE

HATFIELD MARINE SCIENCE CENTER

STUDY AT THE SEA

FALL 2023 AT THE OREGON COAST

Put the ocean in your undergraduate or graduate degree by taking courses at Oregon State University's coastal campus, Hatfield Marine Science Center, in Fall Term.

Students can create a full term of study, featuring courses by OSU's [Fisheries, Wildlife and Conservation Sciences](#) and additional courses from [College of Earth, Ocean, and Atmospheric Sciences](#) and [College of Liberal Arts-Marine Studies](#). Opportunities for research experience and internships provide additional pathways for students to gain experience in their fields of interest.

Why study at Hatfield Marine Science Center?

- Options for students to live at the Hatfield Marine Science Center or attend as commuters, including by the Coast-to-Valley Shuttle.
- Experience the fall season at the coast. The central coast is a popular place for observing gray whales feeding close to shore!
- Opportunities for undergraduate and graduate students.
- Small classes with experiential learning integrated into the courses.
- Courses provide training in marine animals, natural resource conservation and management, oceanography, and human dimensions of ocean and coasts.
- Fulfill your program requirements in a new way - - Experience the immersive learning communities of Hatfield Marine Science Center and the central coast.

Important Dates

Priority Registration opens May 21

Hatfield Housing Applications open July 1

The regular, 11-week session starts in the third week of September (Sep 27) and ends in December (Dec 15).

OSU also offers non-traditional courses in special sessions, including a 2-week "term extension" in early September.

Fall Term academic deadlines:

registrar.oregonstate.edu/osu-academic-calendar

Some features of OSU Fall courses at the coast

- New! An introductory course to Oceanographic Data Analysis (OC 301), using Python programming language. Emphasizing the visualization and interpretation of socially relevant

data, this course provides a strong base for interdisciplinary collaborations and/or advanced scientific training.

- Graduate series in Marine Mammal conservation, including courses in biology, physiology, behavior, and human interactions. Taught by leading experts at the Marine Mammal Institute.
- The signature field course in Coastal Ecology and Resource Management (CERM) FW 426/526. This five-credit course is taught by a team of faculty and agency scientists and is based at the Hatfield Marine Science Center. The class consists of a 4-day intensive field lab and lecture series, followed by weekly seminars, discussions, and field trips for the term. Students learn basic biological, chemical, and physical processes of coastal habitats and some of the issues associated with human use of coastal resources.

While students study at Hatfield, there are opportunities to gain additional experience with volunteer service learning.

Oregon Coast Aquarium: <https://aquarium.org/support/volunteer>

Oregon Sea Grant-Hatfield Visitor Center: <https://seagrant.oregonstate.edu/visitor-center/volunteer>

Oregon Department of Fish and Wildlife, <https://www.dfw.state.or.us/agency/volunteer>

Other volunteer opportunities may also be available at research labs. Contact HMSC_Academic@oregonstate.edu.

Life at the coast

Housing at Hatfield- Apply for housing early! Shared apartments with cooking facilities are available at Hatfield. Also available are the lower cost, field-station-style bunkhouses with shared facilities. Approximate per month rental (per person) ranges from \$200 to \$500 depending on your housing choice. Single night rates may also be available. To learn more: <https://hmsc.oregonstate.edu/main/housing>

Recreational activities are available at Hatfield, the Newport Recreational Center (gym, pool, exercise classes; passes available), and in the surrounding areas (surfing, hiking, paddle boarding, mountain biking, whale watching, fishing, disc golf, etc). Local restaurants host regular events, such as local live music. Weekly Newport Farmers Market every Saturday.

Location and transportation: HMSC is conveniently located in Newport along Oregon's Central Coast. Public transportation is available from Corvallis and other Willamette Valley locations by the Coast-to-Valley Express Shuttle. Carpool programs also available. Parking at Hatfield is free. Approximately 55 miles from Corvallis, the drive to Newport takes about one-hour. Along the coast, public transportation can help you move between the Center and shopping areas. Students residing at the Center often organize carpools to facilitate travel. [Learn about the travel options](#) available for getting to the Hatfield campus.

Medical care available at the New Samaritan Pacific Communities Hospital, including Urgent and walk-in care.

OSU Library resources available at the HMSC Marilyn Potts Guin Library, which features a premier collection of marine-related resources and access to OSU's main library. Students in-residence can seek 24-hour access.

Make new connections— Students from all over the country come to Hatfield for classes and internships. Orientation activities will help you to learn about resources.

The Hatfield Student Organization is a resource for all students studying at HMSC.

hmsc.oregonstate.edu/academics/hatfield-student-organization-hso

Student employment opportunities at Hatfield Marine Science Center may be available through Oregon State University. Search the university job postings at jobs.oregonstate.edu by appointment type [student employee] and job location [Newport].

Financial Support

Student Financial Aid: Visit OSU's financial aid resources to understand important dates, forms, and resources such as links to tuition tables and calculators. <https://financialaid.oregonstate.edu/>

Scholarships: Oregon State curates many scholarship resources for students.

- OSU Scholarship Resources: <https://financialaid.oregonstate.edu/scholarships>
- Hatfield Marine Science Center scholarships: hmsc.oregonstate.edu/academics/scholarships
- Marine Studies Initiative student awards: <https://marinestudies.oregonstate.edu/2023-msi-student-awards>
- Additional awards may be available through your academic unit; check with your advisor.

Coastal Housing Awards: Coastal housing awards may become available for registered students to help partially defer housing costs at Hatfield Marine Science Center. These will be announced at <https://marinestudies.oregonstate.edu/2023-msi-student-awards> (Marine Studies Initiative Coastal Housing Awards).

Travel to-from Newport, Oregon: The Coastal Travel Assistance Program, supported by Marine Studies Initiative, helps defer the cost of traveling to the coast by subsidizing Coast-to-Valley tickets for qualifying purposes - classes, field trips, tours, lectures, events and other degree-supporting work at Hatfield. <https://marinestudies.oregonstate.edu/coastal-travel-assistance>

Interested? Here are next steps to enroll in the Fall at the Oregon Coast:

- Review list of courses on the following pages.
- Talk with your academic advisor to ensure your course choices fit into your OSU program

- Register - Registration for OSU students is identical to registration for all OSU classes. Students from other institutions are also encouraged to apply. Many schools have tuition and credit transfer agreements with OSU. Tuition fees are through OSU and dependent on the number of credit hours, residency, and whether the course is Ecampus. Talk with your academic advisor if you have additional questions.
- To get started with registration: registrar.oregonstate.edu/getting-started
- Complete your housing application if you plan to reside at Hatfield Marine Science Center. hmsc.oregonstate.edu/facilities/housing
- Check your ONID e-mail for announcements.

Important Points of Contact

Courses and plan of study: Your academic advisor

Internships & research experiences at Hatfield: HMSC_Academic@oregonstate.edu

OSU Hatfield Marine Science Center Housing: hmsc_housing@oregonstate.edu

Other questions? Contact the Marine Studies Initiative at OSUoceanadvising@oregonstate.edu

Course Descriptions - Summary table with course registration are at the end of this document.

- Talk with your academic advisor about how these courses can contribute to your degree.
- Note: In addition to these following courses, there are other degree-specific courses using Hatfield Marine Science Center. For example, College of Earth, Ocean, and Atmospheric Sciences offers core undergraduate and graduate courses for their majors during Fall Term Extension.

Full Term (Sep 27-Dec 8) and Super Term (Sep 13-Dec 8) Courses at Hatfield. Note: Some courses have companion Corvallis-based and Ecampus sections. See summary table (end of this document). Talk to your advisor if you have questions.

- **Oceanographic Data Analysis. OC 301. 4 credits.** *At Hatfield Marine Science Center every Tuesday and Thursday, 1:00-2:50PM from September 27-December 8. See Schedule of Classes for detail about locations.* Applies quantitative and graphical methods to characterize and to test relationships between diverse oceanographic data. Develops skills to interpret data based on source, timescale, and statistics. Enhances proficiency in communicating conclusions and uncertainties regarding relationships between ocean processes.
- **Humans and the Ocean. MAST 201. 3 credits.** *Lectures T/Th 10-11:20AM. Students can attend from HMSC/Newport by enrolling in Section 801.* An introduction to marine systems and the history of humans' interaction with the ocean from a unique literary perspective. Lectures,

group and individual library research, fieldtrips, and assignments will collate approaches from a range of disciplines including marine science, history, literary study, and other arts and humanistic disciplines. Through fiction and non-fiction literary perspectives designed to enhance critical reading skills, learn about historic and contemporary ocean and coastal issues, such as sustainable fisheries, pollution, and climate change, with perspectives from faculty in the humanities, arts, and sciences.

- **Marine Science Seminar. FW 407/507. 1 credit.** *At Hatfield Marine Science Center every Thursday, 3:30PM-4:20PM from September 27-December 8. Students can attend from HMSC/Newport by enrolling in Section 800.* Receive credit for attending the weekly Hatfield Research Seminar Series. For more information about the series, <https://hmsc.oregonstate.edu/pastseminars>
- **The Natural History of Whales and Whaling. FW 419/519.** *At Hatfield Marine Science Center every Monday, 10AM-12:50PM from September 27-December 8.* Explore the natural history of whales as a unique example of adaptation in an evolutionary lineage and learn about historical and current issues of international resource management, through the example of whaling practices. Some background in vertebrate ecology and evolution or genetics required.
- **Coastal Ecology and Resource Management, FW 426/526. 5-credits. Section 800-HMSC/Newport; Section 400 Ecampus hybrid.** *Required attendance Sep 16-19 from 9:00AM-4:50PM each day. HMSC/Newport section then meets Sep 27 to Dec 8 on Wednesdays from 10:00AM-12:50PM.* Study of the ecology and management of coastal marine and freshwater ecosystems as well as natural resources, emphasizing experimental (participatory) learning in a field station setting. Lec/lab. Students in residence at HMSC conduct a research project with mentorship by faculty or agency scientist. Research culminates in a final research poster presentation at an annual coastal ecology and resource management symposium at the end of term.
- **Fishery Biology. FW 454/554. 4 credits.** *For all sections: Lectures MWF 9AM-9:50AM and Lab F 10AM-11:50AM.* Important: See Schedule of Classes and instructor for all detail on section schedule requirements. Field trips during lab time at HMSC weeks 1 & 2; hands-on labs at HMSC weeks 3 & 4, computer labs in the remaining weeks of the term. Principles and methods used in studying the biology of fishes; ecological requirements of freshwater and anadromous fishes; principles and practices in sport fishery management. This course meets OSU General Education requirements for some majors. Bacc Core, Skills – Writing Intensive Courses (CWIC).
- **Marine Conservation Biology. FW 464/564. 4 credits.** *At Hatfield Marine Science Center every Tuesday and Thursday, 10AM-11:20AM from September 27-December 8.* Students can attend from HMSC/Newport by enrolling in Section 800. Lectures, group library research, and class debates on current issues regarding the conservation of biodiversity in the sea. Topics include overfishing, invasive species, eutrophication, marine pollution, and global warming, as well as means of addressing these threats.

- **Methods in Physiology and Behavior of Marine Megafauna. FW 469/569. Ecampus hybrid.** *Required in person Sept 13-15, 2023 in Newport at Hatfield Marine Science Center. Remainder of coursework to be completed online.* An in-depth study of marine megafauna (mammals, birds, turtles) with an emphasis on methods and analyses of behavior and physiology for conservation. Lab and field exercises include investigations into the behavior–physiology nexus of diving, migration, thermoregulation, energy expenditure, and mating systems. Research techniques include tracking and remote biotelemetry monitoring technologies, respirometry, genetics, and direct field study observation. Theoretical approaches, field techniques and statistical analyses will help prepare students for a career in fisheries or wildlife science. Lec/lab. Departmental approval required for registration.
- **Behavioral Ecology of Marine Animals. FW 466/566. 3 credits.** *At Hatfield Marine Science Center every Monday, 2PM-4:50AM from September 27-December 8.* Examines how the social lives of animals contributes to solving fundamental life challenges—eat, not be eaten, reproduce—from an evolutionary and ecological perspective. Examines how group-living shape animal societies in terms of structure, organization, mating and care systems. Explores fundamental concepts of behavioral ecology, sociobiology, social evolution, with emphasis on marine megafauna (cetaceans, pinnipeds, seabirds, elasmobranchs). Combines lectures, groups discussions, field activities, and data analyses on animal societies. Recommended: 200-level Bio series; FW 302; and background in vertebrate ecology or animal behavior.
- **Special Topics: Statistics/Bayesian Modeling for Ecologists. FW 599. 3 credits.** *At Hatfield Marine Science Center every Tuesday and Thursday, 11:30AM-12:50 PM from September 27-December 8.* Various topics in fisheries science and wildlife science. Taught at Hatfield Marine Science Center and Corvallis campus. Enrollment is limited to Graduate or Non-Degree / Credential level students.
- **Special Topics in Oceanography: Statistics/Computing & Marine Research. OC 599. 2 credits.** *At Hatfield Marine Science Center every Wednesday, 1-2:50 PM from September 27-December 8.* In the first half of the class, students will be introduced to computing resources as they apply for marine research, such as Python, Jupyter Hub & xarray; GitHub, version control & personal academic websites; NetCDF file format and metadata; and computing servers. In the second half of the class, students will be guided through using these tools to accomplish a goal tailored to their research. Timing of the class will be discussed with enrolled students during the first week of classes.

Corvallis or Ecampus courses with short-term instruction at Hatfield (multi-day labs or field trips)

- **Introduction to Sharks. FW 199. 1 credit.** *Ecampus hybrid with field trip to Oregon Coast.* Enrollment is limited to students with a program in Fish, Wildlife & Conservation Science, Marine Studies or Fisheries & Wildlife Sciences. Both on-site meetings and online component. This popular course requires one classroom session in Corvallis Wed Sep 27 and a Friday-to-Sunday field trip to the Oregon coast from Sep 29 to Oct 1. Check the OSU Schedule of Classes for details.

- **Sensors in the Wild Ocean. HC 407. 2 credits.** *Class meets weeks 1-5 only (Session 5A), September 27-November 3. Required weekend field trip to Hatfield Marine Science Center November 4-5. See Schedule of Classes for all meeting dates.* Enrollment limited to students in a Honors Bachelor of Arts, Honors Bachelor of Fine Arts, Honors Bachelor of Music or Honors Bachelor of Science degrees.
- **Estuarine Ecology. OC 434/534. 4-credits.** *Meets MWF from 8:00-8:50 AM in Corvallis. Field trip to Hatfield Marine Science Center possible.* Integrated and synthetic training in the ecological processes of estuarine environments, with emphases on ecological interactions among organisms and the biogeochemical cycling of carbon and nitrogen. Topics include geomorphology, estuarine physics and chemistry, primary and secondary producers, ecosystem metabolism, element cycling, food webs, fisheries, restoration, management, and impacts of climate. Field trip required, transportation fee charged.

Opportunities for research, internship, and physical activity credits

- **Research Experience or Internship Credits.** A wide range of exciting opportunities is available for students at Hatfield. HMSC is home to the Oregon Sea Grant Visitor's Center, Oregon Department of Fish and Wildlife, US Fish and Wildlife Service, NOAA and other agencies. This is a premier destination for immersing yourself in hands-on work with research and education experts. HMSC Academic programs and OSU Departmental Staff are skilled in linking students with research experience and internship mentors. *Speak with your advisor to learn more. Itchung Cheung, HMSC Academic Programs can also help coordinate projects with interested students and mentors. Contact: HMSC_Academic@oregonstate.edu*
- **Marine Studies degree capstone. MAST 425. 4-credits.** *Project-based, independent study.* Examines issues related to the ocean and coasts through a transdisciplinary process recognizing insights from multiple perspectives and disciplines. Integrates the varied content explored in the Marine Studies Major through engagement in a substantial research or creative project evidencing intensive study of the social, political, historical, and/or cultural issues of the ocean and coasts. For Marine Studies degree students (College of Liberal Arts).
- **PAC 247 Surfing. 1 credit. Corvallis with trips to Newport.** Teaches the knowledge and fundamental skills of this aquatic sport including history, terminology, safety precautions, the ocean environment, and equipment. Additional fee. *Required class trip dates to Newport. Trip #1: Sat Sept 30th Trip #2: Sat Oct. 7th Back up dates Oct. 1st and Oct. 8th.* Class will surf on 2 best weather days. Fee provides all gear and transportation *Lecture will be on Wed. Sept. 27th & Oct 4th via zoom, Pool session will be in Langton Pool on Friday Sept. 29th.*

Fall 2023 at Hatfield Marine Science CenterQuestions? OSUoceanadvising@oregonstate.edu

Online courses can be taken to meet particular BACC core, WIC, and other degree requirements. Talk with your academic advisor about how these courses can contribute to your degree. In addition to these following courses, there are other degree-specific courses using Hatfield Marine Science Center. For example, College of Earth, Ocean, and Atmospheric Sciences offers core undergraduate and graduate courses for their majors during Fall Term Extension.

Super Term with Hatfield section. September 13-December 8.					
Course Name	Registration Info	Credits	Notes	Class Dates/Times	Course Fees
Methods in Physiology and Behavior of Marine Megafauna FW 469/569	<u>Ecampus Hybrid</u> FW 469, CRN 15655 FW 569, CRN 16793	3	Department approval required All majors welcome. Contact Instructor if issues co-registering for FW 426/526. Superterm, Sep 27-Dec 8	Required in person Sept 13-15, 2023 in Newport. Remainder of coursework to be completed online.	\$25
Coastal Ecology & Resource Management FW 426/526	<u>HMSC/Newport Campus</u> FW 426, CRN 16550 FW 526, CRN 16549 <u>Ecampus Hybrid</u> FW 426, CRN 13083 FW 526, CRN 16792	5	Junior standing or above Departmental approval. HMSC/Newport Campus students conduct a research project with mentorship by faculty or agency scientist.	Required in-person Sept 16-19 2023 in HMSC. 9/27-12/8: students meet W 10:00 AM - 12:50 PM	\$80
Full Term with Hatfield section. September 27-December 8					
Course Name	Registration Info	Credits	Notes	Class Dates/Times	Course Fees
Oceanographic Data Analysis OC 301	<u>HMSC/Newport</u> OC 301, CRN 19091 <i>Corvallis section also available</i>	4	Students without the prerequisite can request permission from the instructor to take the class. Register in location student will take course.	T/Th 1-2:50 PM	None

Humans and Ocean MAST 201	HMSC/Newport MAST 201, CRN 19715	3	Students attending FW 302 and/or FW 350 can take MAST 201 from HMSC. HMSC students will connect to a Corvallis classroom via Zoom. A MAST-affiliated faculty will be present at HMSC to assist the course.	T/Th 10-11:20AM Field Trip F Oct 20	None
Marine Science Seminar FW 407/507	HMSC/Newport FW 407, CRN 10702 FW 507, CRN 10703 <i>Ecampus section also available</i>	1	Junior standing or above	Th 3:30-4:20 PM	None
The Natural History of Whales and Whaling FW 419/519	FW 419, CRN 19523 FW 519, CRN 19792	3	Undergrads: May meet program 400-level electives or other degree requirements.	M 10 AM-12:50 PM	None
Special Topics: Statistics- Bayesian Modeling for Ecologists FW 599	FW 599, CRN 20292 <i>Corvallis section also available</i>	3	Enrollment is limited to Graduate or Non-Degree / Credential level students.	T/Th 11:30AM- 12:50PM	None
Special Topics in Oceanography: Statistics-Computing & Marine Research OC 599	OC 599, CRN 20288	2		W 1 PM-2:50 PM	None

Fishery Biology FW 454/554	HMSC/Newport FW 454- Lecture, CRN 18046 FW 454- Lab, CRN 18074 FW 554- Lecture, CRN 18060 FW 554 Lab, CRN 18077 <i>Corvallis section also available</i>	4	Course conducted at Corvallis and HMSC/Newport. See Schedule of Classes for all detail. Bacc Core, Skills – Writing Intensive Courses (CWIC). Includes field trips and labs.	MWF, 9-9:50 AM (Lecture) F 10-11:50 AM (Lab) <i>See schedule of classes for important schedule information.</i>	None
Marine Conservation Biology FW 464/564	HMSC/Newport FW 464, CRN 16352 FW 564, CRN 16353 <i>Corvallis section also available</i>	3	Undergrads: May meet program 400-level electives and other degree requirements.	T/Th 10-11:30 AM	None
Behavioral Ecology of Marine Animals FW 466/566	HMSC/Newport FW 466, CRN 19978 FW 566, CRN 19980	3	Undergrads: May meet program 400-level electives or other degree requirements. Recommended but not required: Biology 200-level series, FW 302, or background in vertebrate ecology or animal behavior May take concurrently with FW 302	M 2-4:50 PM	None

Corvallis or Ecampus courses with short-term instruction at Hatfield (multi-day labs or field trips).					
Course Name	Registration Info	Credits	Notes	Class Dates/Times	Field Trip/Lab Fees
Introduction to Sharks FW 199	Ecampus Hybrid CRN 16348	1	Hybrid section; both on-site meetings and online component. Required field trip to Oregon Coast (HMSC and Port Orford) 9/29-10/01	See schedule of classes.	\$100
Sensors in the Wild Ocean HC 407	HC 407, CRN 17721	2	Enrollment limited to students in a Honors Bachelor of Arts, Honors Bachelor of Fine Arts, Honors Bachelor of Music or Honors Bachelor of Science degrees. Session 5A Sep 27-Nov 3	Corvallis: Sep 27-Nov 3 on Fridays from 2-3:50 PM Field trip to HMSC/Newport: Nov 4-5	\$73
Opportunities for research or internship credits					
Course Name	Registration Info	Credits	Notes	Class Dates/Times	Field trip/Lab Fees
Research Experience (401) Internship (410)	FW/IB/OC/MAST 401/410	1-16	Discuss with your advisor.	variable	None
Marine Studies Capstone	MAST 425	4	Discuss with your advisor.	variable	None

*** PAC 247 Surfing. Corvallis with trips to Newport. 1 credit. Section 001, CRN 11694.** Teaches the knowledge and fundamental skills of this aquatic sport including history, terminology, safety precautions, the ocean environment, and equipment. Additional fee. Required class trip dates to Newport. Trip #1: Sat Sept 30th Trip #2: Sat Oct. 7st Back up dates Oct. 1st and Oct. 8th. Class will surf on 2 best weather days. Fee provides all gear and transportation Lecture will be on Wed. Sept. 27th & Oct 4th via zoom, Pool session will be in Langton Pool on Friday Sept. 29th.