“Twenty years from now you will be more disappointed by the things that you didn’t do than by the ones you did do. So throw off the bowlines. Sail away from the safe harbor. Catch the trade winds in your sails. Explore. Dream. Discover.”

Mark Twain
OVERVIEW

WHO WE ARE

Why SEA Semester?
The global ocean covers nearly three-quarters of Earth, yet 90% is largely unexplored. It provides half of the oxygen in the atmosphere, regulates the planet’s climate, and delivers food security for the world’s population. However, threats such as climate change, marine pollution, habitat loss, and overfishing jeopardize its health and sustainability.

Humans depend upon the ocean. The future of the ocean depends upon you.

Sea Education Association (SEA) is an internationally recognized leader in undergraduate ocean education. Since 1971, we have equipped students with the tools to become environmentally literate leaders prepared to address the defining issue of the twenty-first century: the human impact on the environment.

Our fully accredited study abroad program, SEA Semester, is the leading off-campus Environmental Studies program focused on the ocean. While the academic focus varies, each program offers an interconnected suite of courses designed to explore a specific ocean-related theme using a cross-disciplinary approach. We look for motivated undergraduates of all majors who are passionate about learning, inspired to tackle and address real-world problems, and eager to become part of an unparalleled living and learning community.

SEA is based on Cape Cod in the oceanographic research community of Woods Hole, Massachusetts.

The SEA Semester Difference

Student-Centered Experiential Learning
- The sailing adventure of a lifetime grounded in academic coursework
- Cross-disciplinary living and learning communities to suit all majors
- Practical skill building in a collaborative, real-world environment
- Maximum student-teacher ratio of 8:1 on shore and 3:1 at sea

Academic Excellence
- A multidisciplinary approach to global scale issues
- Authentic research experience in a variety of disciplines
- A full-time faculty with complementary visiting faculty in specialized fields
- Transferable undergraduate credit from Boston University or Hawaii Pacific University
- Coursework that is designed to fit seamlessly into major, minor, or elective requirements

Personal Growth
- Development of leadership, teamwork, problem solving, and communication skills
- “Step-stipulated”: awareness of career responsibility within a given community, and the world
- Increased confidence, self-awareness, and self-reliance

Explore, Dream, Discover.

Explore
The more you explore, the more you’ll discover. SEA Semester prepares students to fully engage with the ocean environment through on-shore coursework followed by an open ocean sailing adventure. Our programs encourage students from all academic majors to learn more about this critical global resource from the platform of a tall ship while exploring ports of call in Europe, the Caribbean, Polynesia, or New Zealand.

Dream
SEA Semester is one of the most engaging and challenging educational experiences undergraduates can undertake. While a study abroad program can take students to a new environment that pushes them beyond their comfort zone, only SEA Semester takes students to the most foreign environment on Earth: the open ocean. Our alumni leave with newfound confidence, a stronger sense of community, and improved skills in leadership, teamwork, and communication.

Discover
SEA Semester provides an experiential opportunity to gather firsthand knowledge that will influence students’ lifelong relationships with the ocean. As society becomes more aware of how integral the oceans are to the planet, we must also understand how to conserve these important resources. Moving beyond the textbook toward practical application, hands-on research, and personal experience, SEA Semester prepares students to take a more active role in solving today’s environmental problems.

Creating Ocean Scholars, Stewards, and Leaders Since 1971
History of Woods Hole

Woods Hole, a village in the town of Falmouth, Massachusetts, was settled in the late 17th century as a farming and fishing community. With the rise of the whaling industry in the early 1800s, Woods Hole became a whaling station. At its height, the small bustling town was the home port of more than nine ships and boated processing facilities for both whale oil and whale bone, along with the industries needed to prepare whaling ships for long voyages on the high seas. In the mid-19th century, as whaling became less profitable, the Pacific Guano Works established a base in Woods Hole. Ships brought back guano from islands in the Pacific Ocean and the Caribbean to be turned into fertilizers. The latter half of the 1800s saw the beginning of the Woods Hole scientific community that exists today.

In 1871, the United States Commission of Fish and Fisheries (the precursor of the National Marine Fisheries Service) was established. Soon, visiting scientists were studying local marine plants and animals, and a fishery was organized to stock rivers with trout, salmon, and other fish. In 1888, a second institution, the Marine Biological Laboratory (MBL), was established. For almost 90 years, MBL was solely a summer institution, but since the 1970s it has hosted a number of major year-round programs.

The Woods Hole Oceanographic Institution (WHOI), a private nonprofit organization originally funded by the Rockefeller Foundation, was incorporated in 1930 to study all branches of oceanography. Since much of the research was planned for the deep sea, the research vessel Atlantis was built and used from 1931 to 1964. Today, WHOI’s research scientists study all aspects of the ocean.

In 1962, a fourth institution, the U.S. Geological Survey, headquartered its new Branch of Atlantic Marine Geology in Woods Hole to investigate the geology and geophysics of the Atlantic, Gulf of Mexico, and Caribbean.

Sea Education Association joined the community in 1976, followed by the Woods Hole Research Center, an organization established to study the earth’s changing climate, in 1985.

Our History

SEA was founded in 1971 by a small group led by Cornell “Cory” Cramer, Jr. and Edward “Sandy” MacArthur. Cory was a leader and a passionate advocate of learning by doing. His idea was to create a program to give undergraduates the opportunity to study the ocean from a multidisciplinary perspective, and to do it from the platform of a traditional sailing vessel.

Such a program would also bring attention to a vast and largely unexplored discipline—the young field of marine science—while offering each student the chance to live and work in the ocean environment. Cory believed this opportunity should be open to students of all majors: the oceans would, he thought, provide the ideal context in which to introduce future scientists to the fascinating scientific, philosophical, and political elements of our maritime heritage. They would also offer an unparalleled opportunity for non-scientists to develop keen observational and investigational skills.

SEA Semester is the result of Cory Cramer’s efforts and those of his many friends and supporters. The earliest SEA Semester programs were directed from headquarters in Chicago and Boston. In 1975, Cory brought the organization and its original sailing vessel, the R/V Westward, to Woods Hole, Massachusetts, a world-renowned center of oceanographic teaching and research. Today, SEA Education Association is a valued member of the Woods Hole community and a recognized leader in education under sail.

SEA has evolved dramatically over the years. In 1967, the SSV Corwith Cramer was launched, and with it an entirely new classification of research sailing vessels. In 2001, the R/V Westward was replaced by the SSV Robert C. Seamans, a state-of-the-art vessel which made it possible to offer SEA Semester programs in the Pacific as well as the Atlantic.

This tradition of innovation and improvement has continued into the twenty-first century. Academic offerings have expanded from a single program to a wide portfolio of options, and student and faculty research has become internationally recognized, specifically in the area of marine debris.

For nearly 45 years, SEA Semester students have contributed to what the world knows about the oceans. We invite the next generation to join us and experience firsthand the excitement, challenges, and rewards of our work.
OVERVIEW

UPCOMING VOYAGES

Over 1,197,000 nautical miles sailed since 1971
That's over 55 times around the globe, or 5.8 trips to the moon!

As my watch took the wheel and sailed across the Equator, I looked around me at the friends I had made and the adventure I was on and I knew that I was exactly where I was supposed to be. That was the moment I knew I could accomplish anything in life. Jennifer Emesowska, University of Durham, integrated sciences major

Study Abroad at Sea

SEA Semester programs embark on academic research throughout the year to Europe, the Caribbean, Polynesia, and New Zealand. On some voyages, students sail thousands of miles across the open ocean. On others, they investigate a smaller area of the marine environment more closely. All voyages offer an immersive, integrated, and interactive experience that is grounded naturally from living and working aboard the unique educational platform of a tall ship.

Safety is our number one priority on every voyage, every day. SEA owns and operates the SSV Corwith Cramer and the SSV Robert C. Seamans, both custom designed and uniquely built educational platforms. Our ships are inspected and certified by the U.S. Coast Guard as U.S. flagged Sailing School vessels (SSV). They are required to meet stringent safety standards different from those for passenger vessels on a comparable route.

Since 1971, SEA has continuously and thoughtfully honed its safety policies and procedures to minimize risk to program participants and personal while achieving programmatic goals. We take pride in our safety record, SEA regularly monitors and assesses our personal qualifications, training practices, safety policies, and material condition of our equipment to maintain safety as a priority within our programs and operations. We operate under a philosophy of prevention but prepare for and are capable of a broad spectrum of response.

The SSV Corwith Cramer and SSV Robert C. Seamans meet or exceed the safety requirements for their USEDS and AIBS class designations and possess all necessary equipment for safe navigation and emergency situation response. Both ships also carry complete medical kits and are assigned a designated medical officer and 24-hour shore-side health professional support via satellite telephone. Safety for all program participants is paramount.

The foundation of a safe and successful SEA Semester program begins with the medical screening process. All students are required to undergo a thorough physical examination performed by a licensed medical practitioner within three months of the start of the program. Additionally, we ask that students be enthusiastic and forthright in disclosing all pre-existing medical conditions, medications, and medical histories. We do this to discourage applicants or limit the number of students who can participate in SEA Semester, but rather to best enable our faculty and staff to provide a safe and appropriate learning environment both on shore and at sea. With adequate lead-time, SEA can frequently facilitate appropriate risk management for a wide variety of pre-existing medical conditions. We will work with every student, on an individual basis, to assess whether their participation in an at-sea program can occur safely and effectively.

To learn more about our upcoming voyages, visit www.seas.edu/voyages. Note: All voyages are preceded by a shore component; either in Woods Hole or abroad. See program descriptions for details.

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<tr>
<th>Sail Schedule</th>
<th>Atlantic Ocean</th>
<th>Pacific Ocean</th>
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SEA Semester teaches you confidence and leadership in a very subtle way. You are constantly working as a team but yet looking back on it you really push yourself to the limit and make yourself a better and stronger person. Your mentality about the world truly changes after returning from sea and I don’t think any other study abroad program would affect me the same way.

Natalia Wilches-Rietbrock, Northeastern University, Environmental science/Marine science major

Voyages:
THE ATLANTIC OCEAN
Western Europe, Mediterranean, Caribbean

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10 Early Spring 2015
Early Spring 2016
Colonization to Conservation in the Caribbean

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Spring 2016
Marine Biodiversity & Conservation

14 Summer 2015
Transatlantic Crossing
Historic Seaports of Western Europe

16 Early Fall 2015
The Global Ocean

18 Fall 2015
Oceans & Climate

SSV Corwith Cramer
Specifications

Rig: Brigantine
Displacement: 270 Tons
Construction: Steel; built 1987
ASTACE: Shipyard Bilbao, Spain
Length Overall: 154 feet
Length on Deck: 98 feet
Draft: 12.5 feet
Beam: 26 feet
Tall Area: 2,500 Sq. Ft.
Auxiliary Engine: 500 horse power
Cummins diesel
Complement: 38 persons
Colonization to Conservation in the Caribbean

Early Spring 2016: January - March
Early Spring 2015: January - March
San Juan, Puerto Rico »
San Juan, Puerto Rico
Previous host sites have included:
St. Maarten, Antigua, Dominica, Grenada,
Jamaica, the Grenadines Islands, and St. John.

Few places on Earth can compete with the natural beauty and rich, cultural diversity of the Caribbean Islands, and yet the Caribbean of today bears little resemblance to the islands encountered by Christopher Columbus over 500 years ago. Known now as a vacation destination, what is lost on many visitors is the complex and often devastating history of exploitation shared among all Caribbean Islands. That fateful day of ‘discovery’ and the waves of European expansion and colonization that followed represent one of the greatest environmental and human transformations of all time. The conquest of indigenous culture, the exploitation of natural resources, and the development of slave plantation systems have left a legacy still visible today in the environment and identity of each island.

Tourists are encouraged to view the Caribbean as an unraveled and homogenous experience. In reality, each island, despite being defined by centuries of colonial rule, encapsulates a unique community striving towards responsible economic growth, social justice and sustainable use of valued natural resources.

Over the course of this semester, students will be introduced to the Caribbean through first-hand historical accounts of island life followed by their own field-based observations of the region’s natural resources, diverse ecosystems, and environmental and cultural resiliency. Exploration and examination of Caribbean history, culture and land/seacape will be furthered at sea by multi-day port stops at selected islands. Students will confer with local experts whose insights will allow them to deepen their knowledge of issues of sustainability in the Caribbean. Past student research projects have explored topics including fisheries management, coastal biodiversity, ecotourism, cruise ship pollution, gender in postcolonial societies, and regional cooperation initiatives.

Who Should Apply?
This change and adaptation-focused semester is appropriate for students in any major who wish to understand the legacies of colonization alongside the modern issues of climate change and sustainability in small nations and territories.

Courses & Credit
Maritime History & Culture (300-level, 4 cr.)
Marine Environmental History (500-level, 4 cr.)
Maritime Studies (300-level, 3 cr.)
Nautical Science (200-level, 3 cr.)
Oceanography (500-level, 3 cr.)

Academic Credit
SEA Semester: Colonization to Conservation in the Caribbean carries 12 semester hour credits from Boston University for successful completion of the program.

After SEA Semester I returned to Colorado College a more inquisitive student - pressing to understand material in a deeper way, a more confident leader, and a more aware human being. SEA Semester was undoubtedly one of the most important experiences of my life. Samara Haver, Colorado College, Psychology Major.
As time goes on you become more adept at finding the unseen; you begin to recognize phyllosoma by their shadows and leptocephali by the shape of their bodies. It definitely gives you the feeling of either being really good at "I SPY" or being a real scientist.

Trevor Rosvall, University of Maine, Marine Science Major
Transatlantic Crossing is designed for students representing a wide diversity of backgrounds and interests, but especially those excited about exploring the shifting state of the North Atlantic marine ecosystem on this long offshore voyage. All students will participate fully in the nautical and scientific work onboard the SES Covey Center but may select from two course options to focus their academic efforts during the program.

Track One offers the opportunity to carry out predetermined research projects investigating spatial patterns in ocean ecology. On shore, students will be introduced to the Atlantic Ocean environment. In small teams, they will then examine the richness and variety of marine life across the basin in conjunction with the underlying physical and chemical conditions influencing these populations. Research topics may include recent dramatic changes in the phytoplankton community, zooplankton biogeochemistry, composition of continental shelf/open ocean regions, current dynamics, marine pollution, or climate-associated changes. No science prerequisites – see what field research is all about!

Track Two offers students of any major the opportunity to develop lifelong leadership skills. The demands of working and living aboard a sail ship at sea create a powerful learning environment for these skills. Students will explore leadership theory, voyage planning, and team management while in Woods Hole. They will then serve as active crew members at sea, assuming increasing responsibilities under the professional crew until a series of final exercises will test their full leadership capabilities.

Who Should Apply? This program is ideal for any undergraduate with an interest in the ocean. Students may choose a leadership or science track, offering flexibility in project topics and transfer credit. All majors welcome.

Courses & Credit (Choose One)

- Practical Oceanographic Research (3 credit, 6 cr)
- Leadership in a Dynamic Environment (300-level, 3 cr)
- Academic Credit
  - Transatlantic Crossing carries 3 or 4 semester hour credits from Boston University for successful completion of the program.

Who Should Apply? This program is ideal for students who are interested in learning more about the ocean from a human perspective or those studying International Business/Management/Industries. All majors welcome.

Courses & Credit (Choose One)

- Maritime History & Culture (0 credit, 0 cr)
- Leadership in a Dynamic Environment (300-level, 3 cr)
- Academic Credit
  - Historic Seaports of Western Europe carries 3 or 4 semester hour credits from Boston University for successful completion of the program.

FACULTY SPOTLIGHT: Captain Elliot Rappaport

Associate Professor, Nautical Science, MS (Science) Education, University of Maine, BA Theater College, SEA Faculty Captain appointed 2002. SEA Semester alumni, Research areas: navigation, weather, marine safety, Bridge Resource Management, wildlife/medicine. Licenses & Certifications: Master 1000 Tons of Steam, Motor, and Auxillary; 3000 Tons of Steam, Motor, and Auxillary; OUPQ Observer (G3). STCW compliant, Certified Wilderness EMT.
The Global Ocean
Early Fall 2015: August - November

Some opportunities only come around once. Let me know when you find another chance to take the helm of a 134 ft brigantine in the middle of an ocean with a morning sun peaking over the horizon and a warm breeze filling your sails.

Collin Schmitt, Roger Williams University, Anthropology/Sociology Major

Who Should Apply?
This seminar welcomes students from all majors. Elective credit allows students to choose a program track that best meets their academic needs.

Courses & Credit
Core Courses (3 credits)
- Maritime History & Culture (200-level, 4 cr.)
- The Ocean & Global Change (200-level, 4 cr.)
- Leadership in a Dynamic Environment (200-level, 3 cr.)

Electives (choose two)
- Toward a Sustainable Ocean: Marine Conservation & Management (200-level, 4 cr.)
- Data Communication & Visualization (200-level, 4 cr.)
- Cultural Landscapes & Seascapes: A Sense of Place (300-level, 3 cr.)
- Directed Oceanographic Research (300-level, 4 cr.) or Practical Oceanographic Research (200-level, 4 cr.)

Academic Credit
SFA Semester: The Global Ocean counts 17th semester hour credits from Boston University for successful completion of the program.

Human actions have caused measurable changes in the global ocean. The rate at which resources are being extracted and pollutants are being added is significantly impacting human health, global economic systems, and local cultural practices—and threatens to further degrade the world’s oceans. Many coastal communities are already struggling to cope with sea level rise, depleted fisheries, loss of habitat, and increased catastrophic storm effects. To understand how such changes occur, we need to look not only at how natural systems work, but also at the histories, cultures, and politics of people who live on coasts and islands in different regions. This requires a place-based, multi-disciplinary approach, drawing from the humanities, sciences, social sciences, and arts among other tools, we will use the ten metrics of the Ocean Health Index. Reciprocal interactions with diverse communities in ports of call and a real-world view of ocean issues from the deck of a sailing research vessel will offer a unique perspective on one of the most pressing environmental issues of the twenty-first century: the human impact on the environment.

The maritime agendas of Spain and Portugal helped shape the modern world, specifically during the 16th and 17th centuries. Today, seaports on Mediterranean and Atlantic coasts continue to exploit maritime resources and therefore face new challenges. Modern ships require harbor infrastructures that have serious environmental consequences. Local fish stocks have been depleted, sending fishermen to distant oceans. Tourists flock to the city of Barcelona, the ancient port of Cadiz, and the islands of Mallorca and Madeira, where rugged landscapes are now protected for their natural beauty and cultural heritage. What is the legacy of the past, and how will these resources be managed in the future? In this seminar, students will become the explorers in order to examine the global impacts of these two great maritime nations.

FACULTY SPOTLIGHT: Dr. Mary Molloy
Professor, Maritime Studies - PhD American Civilization
Brown University, MA American Studies/Robert Branon College, MA American Civilization/Museum Studies Brown University, MA University of Washington, SEA Faculty appointed 1991.
Research areas & interests: museums and material culture, European expansion and colonialism in the Atlantic and Pacific, maritime cultures in the age of sail, New England trade in the Northwest Coast.

Barcelona, Spain
Canary Islands
Understanding climate change and its associated impacts is the predominant scientific challenge of our generation, and the timely application of this knowledge to public policy is crucial to the future of the planet. This semester attracts upper-level students interested in exploring the ocean’s role in the global carbon cycle and climate dynamics. Beginning with long-term, natural climate variability and proceeding through recent anthropogenic influences to the uncertainties of tomorrow, students will develop a strong foundation in global oceanographic processes while also examining the regional climate-related phenomena along their cruise track. Regional, national, and international energy and climate policies will also be considered, along with their inherent challenges.

This transatlantic research voyage offers the unique opportunity to study the remote ocean environment using advanced oceanographic instruments. Students will begin their voyage in the Canary Islands, where abundant renewable resources have been harnessed in innovative wind-energy systems that dramatically reduce reliance on fossil fuels. They will then compare such strategies to those employed by small Caribbean islands moving towards sustainable development, ecological conservation, and proactive coastal zone and climate change management. Climate, policy, and sustainability questions examined during the shore component will be explored in various parts of the world where students will investigate local concerns and responses across multiple island sites. Guided scientific research projects will allow students to analyze collected data and present their findings and policy recommendations at the end of the program.

This intensive semester integrates student-driven research, analysis, and communication skills across science and policy disciplines in order to prepare students for a wide variety of future roles in our increasingly complex global environment.

**Who Should Apply?**
This semester is a good fit for upper-level students who are concerned about environmental change and interested in developing a better understanding of public policy.

**Courses & Credit**
- Ocean Science & Public Policy (0-0/level 3 cr.)
- Nautical Science (0-0/level 3 cr.)
- Adv/Intermediate Oceano/graphic Field Methods (0-0/level 4 cr.)
- Directed Oceanographic Research (0-0/level 4 cr.)

**Academic Credit**
SEA Semester Ocean & Climate carries 18 semester hour credits from Florida State University for successful completion of the program. To be eligible, students must have taken at least three lab science courses (one at the 100 level or higher) or received permission from SEA faculty.

**FACULTY SPOTLIGHT:** Captain Jason Quillen
Voyages:
THE PACIFIC OCEAN
Hawaii, French Polynesia,
American Samoa,
New Zealand

22 Early Spring 2015
Fall 2015
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The Global Ocean

24 Spring 2015
Oceans & Climate

26 Summer 2015
Aloha Aloha: People & Nature
In the Hawaiian Islands
Protecting the Phoenix Islands

28 Early Fall 2015
Sustainability in Polynesian
Island Cultures & Ecosystems

30 Early Spring 2016
Ocean Exploration

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55V Robert C. Seamans
Specifications

Rig: Brigantine
Displacement: 360 Tons
Construction: Steel; built 2001
J.M. Martinac Shipbuilding, Tacoma, WA
Length Overall: 134.5 feet
Length on Deck: 111.4 feet
Draft: 15.9 feet
Beam: 25.5 feet
Sail Area: 8554 Sq. Ft.
Auxiliary Engine: 455 horsepower
Caterpillar diesel
Compliment: 40 persons
Putting our trust in the natural world around us and the knowledge of the past navigators who have gifted us their epic discoveries, we embark on a journey of knowledge that crosses all boundaries of time.

Mia Pichler, University of Vermont, Anthropology & Art Major

Human actions have caused measurable changes in the global ocean. The rate at which resources are being extracted and pollutants are being added is significantly impacting human health, global economic systems, and local cultural practices—and threatens to further degrade the world’s oceans. Many coastal communities are already struggling to cope with sea level rise, depleted fisheries, loss of habitat, and increased catastrophic storm effects. To understand how such changes occur we need to look not only at how natural systems work, but also at the histories, cultures, and policies of people who live on coasts and islands in different regions. This requires a place-based, multi-disciplinary approach, drawing from the humanities, sciences, social sciences and arts. Reciprocal interactions with diverse communities in ports of call and a real-world view of ocean issues from the deck of a sailing research vessel will offer a unique perspective on one of the most pressing environmental issues of the twenty-first century: the human impact on the environment.

New Zealand, called Aotearoa by the Maori, is our laboratory. As an island nation, the health of its oceans, land, and people are inextricably tied. With jurisdiction over a huge area of ocean and one of the largest Exclusive Economic Zones in the world, New Zealand’s marine ecosystems range from subantarctic to subtropical, deep trenches to shallow banks, and coastal mangrove forests to coral reefs. In 1993, Tongariro National Park became the first UNESCO World Heritage cultural landscape site, acknowledging the spiritual link between the Maori community and their natural environment. Having made a national commitment to sustainable management of such resources, New Zealand’s innovative policy and conservation efforts attempts to compete with its desire for economic prosperity. In this seminar, students will explore the unique environmental and complex cultural influences that have shaped these seas. They will also visit marine and coastal protected areas and various ports of call to examine the relationships between different cultural groups and the ocean environment that surrounds them.

FACULTY SPOTLIGHT: Captain Pamela Coughlin
Instructor: Nautical Science, Sailing with SEA since 2007, SEA Faculty appointed 2018
Degrees: BSc, Marine Science, Master (MEd) TESOL of Science, Mathematics, and Natural Sciences, and Teacher Education (Advanced) STCM Completed.
Oceans & Climate
Spring 2015: February - May

Understanding climate change and its associated impacts is the predominant scientific challenge of our generation, and the timely application of this knowledge to public policy is crucial to the future of the planet. This semester attracts upper-level students interested in exploring the ocean’s role in the global carbon cycle and climate dynamics. Beginning with long-term, natural climate variability and proceeding through recent anthropogenic influences to the uncertainties of tomorrow, students will develop a strong foundation in global oceanographic processes while also examining the regional climate-related phenomena along their cruise track. Regional, national, and international energy and climate policies will also be considered, along with their inherent challenges.

On this South Pacific voyage, students will trace the shadow, highly productive Chatham Rise, which divides subtropical waters from subantarctic. They will also visit the Chatham Islands, where climate change is already evident through documented increases in both annual temperature and rainfall. Here, infrastructure and resources are concentrated within the coastal zone, much like the second port stop of Tahiti, center of the Austral Islands and host to a large reef-protected lagoon as well as volcanic peaks. Based upon healthy, resilient marine environments for protection and economic security, the development and implementation of culturally sensitive strategies for climate change adaptation is among the community’s greatest challenges. Climate, policy and sustainability corridors examined during the shore component, including local concerns and responses, will be explored in both ports of call. Guided scientific research projects will allow students to analyze collected data and present their findings and policy recommendations at the end of the program.

This intensive semester integrates student-driven research, analysis, and communication skills across science and policy disciplines. In order to prepare students for a wide variety of future roles in our increasingly complex global environment.

Who Should Apply?
This semester is a good fit for upper-level students who are concerned about environmental change and interested in developing a better understanding of public policy.

Courses & Credit
Ocean in the Global Carbon Cycle (200-level, 3 cr.)
Ocean Science & Policy (200-level, 3 cr.)
Biodiversity Science (200-level, 3 cr.)
Advanced Oceanographic Field Methods (200-level, 4 cr.)
Directed Oceanographic Research (200-level, 4 cr.)

Academic Credit
SEA Semester: Oceans & Climate carries 9 semester hour credits from host University for successful completion of the program.

FACULTY SPOTLIGHT: Dr. Deb Goodwin
Assistant Professor, Oceanography, PhD (Oceanography) University of New Hampshire, MS (Geology) University of Washington, BA (Biology) College. SEA Faculty appointed 2010.

Research areas & interests: marine plastic pollution and its ecological impacts; distribution dynamics of Sargassum macroalgae; remote sensing and GIS; temporal and spatial patterns of phytoplankton physiology; development of coastal ocean observing systems.
Aloha 'Aina: People & Nature in the Hawaiian Islands
Early Summer 2018: June - July

Aloha 'Aina, a Hawaiian conception of 'true of the land,' describes a deep and enduring relationship between Hawaiian people and the land and ocean resources that sustain them. In this service-based program, students will see Aloha 'Aina in action, serving together traditional Hawaiian knowledge, values, and practices with contemporary western science, instrumentation, and ecosystem management. Combining these different environmental approaches, they will work with community leaders, ocean resource managers, and coastal stakeholders as they implement actions to sustain marine environments.

Students will first spend two weeks on shore at Hawaii Pacific University, and then travel throughout the Hawaiian archipelago aboard the SSV Robert C. Seamans, engaging in community-based projects that are developing innovative solutions to land-based pollution, over-fishing, and climate change adaptation. Students will develop scientific expertise on the key biophysical processes that support ocean resources and coastal cultures, and a rigorous understanding of the unique combination of social, ecological, and policy dimensions of marine resource management emerging in the Hawaiian Islands.

A brief final symposium back at Hawaii Pacific University will allow students to present their policy recommendations to a panel of experts.

FACULTY SPOTLIGHT: Erin J. Rynearson, Esq.
Assistant Professor, Ocean Policy, JD, Roger Williams University School of Law, MBA, University of Rhode Island, PhD, Simmons College, BA (Analog) Bryn Mawr College.

Research areas & interests: human interaction with, control of, and management of, and valuation of ocean resources, climate change adaptation and mitigation strategies, fisheries, public health, ethics, and equity, communication of science.

Early Summer 2015
Hawaiian Islands: Honolulu to Honolulu
Previous host sites have included Lāna'i, Kauai, & Moloka'i.

Summer 2015
Honolulu to American Samoa
This program includes extended time at the boundary of the Phoenix Islands Protected Area.

Who Should Apply?
This program is a great fit for students with an interest in service learning, community development, and resource management.

Courses & Credit
Marine Resource Management: Social, Ecological, and Cultural Dimensions (200-level, 3 cr.)
The Ocean Environment of the Pacific Islands (200-level, 3 cr.)

Academic Credit
Aloha 'Aina carries 6 semester hour credits from Hawaii Pacific University for successful completion of the program.

Who Should Apply?
This program is ideal for upper-level students with an interest in conservation policy and/or marine science. Students may choose a policy or science track, offering flexibility in project topics and transfer credit. All majors welcome.

Courses & Credit
The Ocean & Global Change (200-level, 4 cr.)
Ocean Science & Public Policy (200-level, 3 cr.)
Advanced Ocean Policy Research (400-level, 4 cr.) OR Directed Oceanographic Research (200-level, 4 cr.)

Academic Credit
Protecting the Phoenix Islands carries 11 semester hour credits from Hawaii Pacific University for successful completion of the program.

Protecting the Phoenix Islands
Summer 2018: July - August

In a joint effort with the New England Aquarium, Protecting the Phoenix Islands invites students to explore one of the last coastal wildernesses on earth through one of two academic tracks: science or policy. The Phoenix Islands Protected Area (PIPA) comprises one of the Pacific’s largest marine protected areas (MPAs) and was recently named a UNESCO World Heritage Site. Students will join marine scientists from SEA, Woods Hole Oceanographic Institution, and the PIPA management office on one of the first research voyages to these islands, a region of the world that remains largely unexplored and unstudied.

During the first two weeks on shore, students will begin a survey of large-scale marine conservation efforts around the world. Working in pairs, students will prepare a proposal on an ocean conservation project, framing the ocean science or conservation policy.

Students will then join the SSV Robert C. Seamans for a 2-week research voyage from Hawaii to American Samoa. They will first cross the Equator in a 2-week 1,600-mile voyage to the Phoenix Islands. The next three weeks will be spent in PIPA, documenting the oceanic ecosystem around this archipelago. Working side by side with experts, students will provide real-time data that will be the foundation for an effective conservation plan. A final trip to American Samoa will round out the voyage.
The remote islands of Oceania are some of the most special and significant places in the world. Their coral reefs and tropical forests are bases of biological diversity, and their human populations possess an equally rich diversity of histories, languages, and social practices. Western colonization brought about disruptive changes in the economies and cultures of these societies, which had thrived for millennia on self-sustaining practices. Today, imposed Western ideologies, consumer products, and cultural suppression have severely undermined what were once sustainable traditions. In this semester, students will examine what the future holds for these islands, and whether they can offer solutions that may apply to other regions of the world as well.

Developed by SEA faculty in conjunction with Tahitian partners, this semester will begin with a shore component in Woods Hole where students will be introduced to the history, culture, and geography of Polynesian Islands. Visiting scholars will share their work on resource management, Polynesian voyaging and navigation, and traditional art and cultural practices.

Students will then begin their sailing research voyage, visiting several South Pacific islands to confront challenging questions of colonial conflict, cultural identity, and environmental justice, and to examine relationships between political structures, culture, and the natural environment. They will explore issues of sustainability with local officials while visiting historical, cultural, and agricultural sites. They will also investigate the complex factors that threaten fragile island ecosystems and the surrounding marine environments in an effort to pursue a more sustainable relationship with our oceans.

The program will conclude with a shore component in New Zealand where students will compile and process their research findings.

**Who Should Apply?**
This semester is particularly appropriate for Environmental Studies/Science majors, but students from any major are encouraged to apply.

**Courses & Credit**
- Maritime History & Culture (500-level, 4 cr.)
- Marine Environmental History (500-level, 4 cr.)
- Marine Studies (500-level, 3 cr.)
- Neotropical Science (500-level, 3 cr.)
- Oceanography (500-level, 3 cr.)

**Academic Credit**
SCA Semester: Sustainability in Polynesian Island Cultures & Ecosystems earns 12 semester hour credits from Ithaca University for successful completion of the program.

**FACULTY SPOTLIGHT: Dr. Jan Witting**
Professor, Geography, PhD (Marine Biology)
Northeastern University, BS Northeastern University, SEA faculty appointed 2001
Research areas & interests: coastal reef ecology, design and constructing autonomous underwater vehicles.

Access the SPICE atlas: www.see.edu/spice_atlas
Monday, 31 March 2014
Position: 14° 05.6’ S x 146° 10.5’ W

Every day I realize more and more the amazing reality of life aboard the ship; although compartmentalized into watches, tasks, standing orders and projects, the sum of our efforts is incredible. Here we are, moving in our floating home across the biggest planet even I have ever seen! Sometimes I feel sorry for the task and just feel so lucky to live in the most strikingly beautiful place right now.

Kate Enright, Wesleyan University, Earth and Environmental Science Major

Understanding the oceans is an essential component of appreciating how the world works and how we relate to it as human beings. The sea is so complex that it is impossible to comprehend from the perspective of a single academic discipline. With that in mind, this interdisciplinary program combines insights from oceanography, the humanities, and the social sciences with practical skills in seamanship, allowing students to deepen their awareness of and appreciation for the ocean through hands-on research and personal experience. In this semester, students will address and answer some of the most pressing global questions related to the ocean environment.

During an initial 5-week shore component in Woods Hole, academic coursework will prepare students for their research voyage in New Zealand. With full access to SIA faculty, guest lecturers, and the world-renowned Woods Hole Oceanographic Institution/Marine Biological Laboratory Library, students will design original research projects to be completed at sea. Maritime Studies coursework will complement this research by offering a wider historical and social perspective on the impact of humans on the world’s oceans and on the experience of going to sea. Finally, Nautical Science coursework will introduce practical seamanship skills not the theoretical background necessary for students to safely operate a tall ship at sea.

As full members of the scientific team and soloing crew aboard the SV Robert C. Seamans, students will then spend the next six weeks at sea managing shipboard operations, navigating by the stars, analyzing oceanographic samples, and visiting ports throughout the North and South Islands of New Zealand. Perhaps most importantly, students will learn to challenge themselves and will develop new skills in leadership, teamwork, and research.

Who Should Apply?
This semester attracts students from all majors who are interested in gaining an in-depth understanding of our world’s oceans. Also open to gap and winter start students.

Courses & Credit
Oceanography (200-level, 3 cr)
Maritime Studies (200-level, 3 cr)
Nautical science (200-level, 3 cr)
Oceanographic Field Methods (200-level, 4 cr)
Practical Oceanographic Research (200-level, 4 cr)

Academic Credit
SEA Semester: Ocean Exploration carries 17 semester hour credits from Boston University for successful completion of the program.

FACULTY SPOTLIGHT: Dr. Charles E. Lea
Professor, Oceanography, PhD (Physical Oceanography) Texas A&M University, MA University of Colorado at Boulder. SEA Faculty supported 1985.
Research areas & interests: distributions of cephalopods, pelagic zooplankton.
Life on Shore

At the beginning of every year, the SEA Semester program, up to 25 undergraduates from all over the U.S. (and often the world) come together on SEAs' residential campus on scenic Cape Cod in southeastern Massachusetts. Students begin their academic studies in Woods Hole, a small seaside village that has launched voyages of discovery to every ocean for centuries. Courses and length of the shore component vary by program, but the ultimate goal is always to prepare students for the multinational experience of going to sea.

The shore component is the ultimate pre-departure orientation, engaging students in meaningful multidisciplinary coursework that can then be put into practice and context as soon as they reach the ship. On campus, students live together in double or triple, nautical-style dorms, all with access to full facilities, including a gymnasium, library, and cafeteria. By living in close quarters and working together as a team, they begin to prepare for the demands of living and working together at sea. By day one, students get to know one another and begin building skills in teamwork, leadership, and communication. Most importantly, they form what often become lifelong friendships.

The SEA campus is located just under two miles from the village of Woods Hole and a mile and a half from downtown Falmouth. In their free time, students can enjoy biking, running, and exploring the magnificent local beaches. Nantucket, Martha's Vineyard, New Bedford, and other historic seaside communities are nearby, giving them access to extraordinary displays of maritime history and culture that are very much alive.

Sea Semester students are regularly welcomed at lectures and presentations sponsored by the local community, including the Woods Hole Oceanographic Institution, Marine Biological Laboratory, National Marine Fisheries Service, United States Geological Survey, and Woods Hole Research Center. These activities allow unprecedented access to the world's foremost scientists and institutions addressing the leading environmental questions of today.

Life at Sea

Staying aboard one of SEAs' tall ships is like visiting a foreign country. Studying abroad at sea, you will journey to ports that few in the world get to see. You will experience the culture and history of the ports you visit, understanding the local customs and traditions. SEA students learn to navigate, repair, and maintain the ship, gaining a deep appreciation for the skills and knowledge that go into operating a tall ship.

The shore component is an integral part of every SEA Semester program, preparing students to be successful in their role as researchers, global citizens, and team members.

The sea component also offers tremendous opportunities for leadership development. Near the end of the program, there is a challenging but rewarding capstone experience during which each student leads a complete watch cycle. By this time, students can fully engage in and operate all aspects of the ship, including the sail, deck, engine room, and galley. This final exercise builds confidence and creates a sense of achievement for everyone on board.

Teamwork takes precedence as students share responsibility not only for the operation of the ship but also for the well-being of their shipmates. Relying on one another is essential for the creation of a tight-knit community where everyone feels supported. Learning to balance time on watch with studying, sleeping, eating, and relaxing is part of adapting to shipboard life. Moreover, students learn to challenge themselves and become team players. The flexibility, critical thinking, and communication skills learned at sea foster personal growth that will serve them well throughout their lives.

Take a Virtual Tour of Our Ship!

www.seas.edu/ship_tour
### SEA Semester

#### ACADEMIC CREDIT & COURSE BREAKDOWN

**Did You Know?**

57% of SEA Semester students are science majors. The other 43% represent Social Sciences, Environmental Studies, Humanities, Business, Engineering and other non-science disciplines.

**Credit Transfer**

Each semester-long SEA Semester program offers 17-18 semester hour credits through Boston University, SEA's primary academic partner. The short-term SEA Summer Sessions offer 12 credits from Boston University or Hawaii Pacific University, depending on the program.

All SEA Semester programs are designed to fit seamlessly into undergraduate coursework as major, minor or elective credit. Many programs' courses are offered as a set curriculum, meaning that all students take the same classes regardless of their major. However, some programs offer electives to allow students flexibility based on their interests or academic needs. SEA Semester Admissions Counselors work with all applicants to determine which program best fits their goals. We will also work with sending institution faculty and Study Abroad offices to facilitate credit transfer as necessary.

Program credit is issued either as direct credit from a student's home institution (affiliated with SEA) or as transfer credit. Exactly how SEA Semester credits transfer is ultimately up to the home institution. Therefore, it is important that students work with their academic advisors to determine how the credit will best work for them. SEA Semester enrolls students from a wide variety of colleges and universities each year, and almost all students are able to successfully transfer full credit.

For more detail on credit structure and transfer, visit www.sea.edu/academics or contact the Admissions Office for assistance.

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#### Academic Planning

SEA Semester programs are open to every undergraduate looking for a once-in-a-lifetime academic adventure. Programs run at different times throughout the year and carry full academic credit for successful completion. The earlier students contact us about their interest, the better we can help them plan, allowing them to maximize the number of credits applicable to their academic program at their home institution.

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#### Oceans & Climate

- Oceans in the Global Carbon Cycle
- Ocean Science & Public Policy
- Natural Science
- Advanced Oceanography - Field Methods
- Directed Oceanographic Research

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#### Colonization to Conservation in the Caribbean

- Maritime History & Culture
- Marine Environmental History
- Maritime Studies
- Natural Science
- Oceanography

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#### Sustainability in Polynesian Island Cultures & Ecosystems

- Maritime History & Culture
- Marine Environmental History
- Maritime Studies
- Natural Science
- Oceanography

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#### The Global Ocean

**Core:**
- Maritime History & Culture
- The Ocean & Global Change
- Leadership in a Dynamic Environment

**Electives (Choose Two):**
- Toward a Sustainable Ocean Conservation & Management
- Data Communication & Visualization
- Cultural Landscapes & Societies; Sense of Place
- Directed Oceanographic Research - DR
- Advanced Oceanography Research

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#### Summer I Atlantic: Transatlantic Crossing

**Core:**
- Maritime History & Culture
- Oceanography
- Leadership in a Dynamic Environment

**Summer II Atlantic: Historic Seaports of Western Europe**
- Maritime History & Culture
- DR
- Leadership in a Dynamic Environment

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#### Marine Biodiversity & Conservation

- Advanced Topics in Biological Oceanography: Biodiversity
- Ocean Science & Public Policy
- Natural Science
- Advanced Marine Ecology Research
- Directed Oceanographic Research

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#### Ocean Explorers

- Maritime Studies
- Natural Science
- Oceanography
- Advanced Oceanographic Field Methods
- Practical Oceanographic Research

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I remember thinking, "You can do something like that and get credit?" I've always loved the water and the environment and here was a program marrying the two.

Anna Farrell, Bard College, Environmental Studies Major

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For more information, visit www.sea.edu. For questions or to apply, please contact the Admissions Office.
SEA SEMESTER COURSE DESCRIPTIONS

Advanced Ocean Policy Research (400-level, 4 credits)
Prereq: Admission to SEA Semester. Junior standing or consent of instructor.
Advanced research focusing on a topic of current importance may include fisheries, biodiversity, marine spatial planning, and cultural heritage. Emphasis on theoretical concepts, research methods, and communication skills. Requires critical review of original, research, final report, and presentation.

Advanced Oceanographic Field Methods (300-level, 4 credits)
Prereq: Admission to SEA Semester. Three lab science courses (one at the 300-level or higher) or consent of instructor. Tools and techniques of the oceanographer. Participate inshipboard laboratory operations to gain experience with deployment of modern oceanographic equipment and collection of scientific data at sea. Techniques on sampling, data analysis, use of modern oceanographic equipment, and use of scientific data at sea. Emphasis on team processes and teamwork.

Directed Oceanographic Research (300-level, 4 credits)
Prereq: Admission to SEA Semester. Three lab science courses (one at the 300-level or higher) or consent of instructor. Design and conduct original oceanographic research. Collect data and analyze samples. Complete results in peer-reviewed manuscript format and present during oral or poster presentation session. Emphasis on development of research skills and written/verbal communication abilities.

Leadership in a Dynamic Environment (300-level, 3 credits)
Prereq: Admission to SEA Semester. Sophomore standing or consent of instructor.
To be an effective leader while managing the individual strengths of a team, use leadership theory and case studies to understand how decisions affect outcomes. Participate as an active member of a ship’s crew, progressively assuming full leadership roles.

Marine Environmental History (300-level, 4 credits)
Prereq: Admission to SEA Semester. Sophomore standing or consent of instructor.
Examines the role of human societies in understanding and responding to the changing environment. Topics include marine conservation, biodiversity, and sea-level rise.

Cultural Landscapes & Seascapes: A Sense of Place (300-level, 3 credits)
Prereq: At least 300-level course at sea. Sophomore standing or consent of instructor. Field-based analysis and documentation of dynamic relationships between human and cultural aspects in a specific coastal, island, and ocean place. Apply cultural landscape and regional theories to understand cultural approaches to place-making environments.

Data Communication & Visualization (400-level, 3 credits)
Prereq: Admission to SEA Semester. Sophomore standing or consent of instructor. Information visualization and associated theories, emphasizing communication to diverse audiences. Select between geospatial (GIS) and qualitative data formats, develop geovisualizations and/or multimedia products supporting research projects in concurrent courses. Complete flexible digital portfolio.

Maritime History & Culture (300-level, 4 credits)
Prereq: Admission to SEA Semester. Sophomore standing or consent of instructor.
Explore the maritime history and cultural heritage of societies that interacted with the Atlantic and Pacific oceans, focusing on the seafaring, political, economic, and cultural changes that shaped the societies of the Pacific. Emphasis on the role of the sea in shaping the development of human societies.

Oceano rebuilding (300-level, 3 credits)
Prereq: Admission to SEA Semester.
Explore the role of inter-oceanic environmental factors in shaping the global climate system. Emphasis on understanding the connections between ocean currents, atmospheric circulation, and climate change. Use oceanographic data to analyze and predict future climate scenarios.

Ocean Science & Public Policy (300-level, 3 credits)
Prereq: Admission to SEA Semester. Sophomore standing or consent of instructor. The role of ocean policy in shaping public policy decisions. Emphasis on understanding the complex interplay between scientific data and public policy decisions.

Oceanographic Field Methods (200-level, 4 credits)
Prereq: Admission to SEA Semester. Exposure to basic oceanographic sampling methods. Participate in shipboard laboratory operations to gain experience with modern oceanographic equipment and techniques.

Oceans in the Global Carbon Cycle (300-level, 4 credits)
Prereq: Admission to SEA Semester. Three lab science courses (one at the 300-level or higher) or consent of instructor.
Examine the role of the ocean in the global carbon cycle, focusing on the processes that control the exchange of carbon between the atmosphere and the ocean. Emphasis on understanding the role of ocean currents in shaping the carbon cycle.

Practical Oceanographic Research (200-level, 4 credits)
Prereq: Admission to SEA semester. Introduction to oceanographic research. Design a collaborative, hypothesis-driven project following the scientific process. Collect original data, conduct analysis and interpretation, and present a written report and oral presentation.

The Ocean & Global Change (300-level, 4 credits)
Prereq: Admission to SEA Semester. Sophomore standing or consent of instructor.
Explore the role of the ocean in the global climate system. Emphasis on understanding the complex interplay between ocean currents, atmospheric circulation, and climate change. Use oceanographic data to analyze and predict future climate scenarios.

Toward a Sustainable Ocean: Conservation & Management (300-level, 4 credits)
Prereq: Admission to SEA Semester. Sophomore standing or consent of instructor. The role of ocean policy in shaping public policy decisions. Emphasis on understanding the complex interplay between scientific data and public policy decisions.
Why Have 7,600 Undergraduates Chosen to Study Abroad with SEA Semester?

Photos: Sarah Zondag / Photography

Creating Career Paths
- Our expansive alumni body offers a network of internship, research, and employment opportunities via an online Alumni Directory
- 70% of our alumni report improved self-confidence & self-esteem as the result of SEA Semester
- 19% of our alumni are faculty members who teach environment-related courses at 112 colleges or universities including Stanford, Caltech, Smith, Boston University, MIT, Johns Hopkins, Cornell, and Columbia

More Than One Million Miles Sailed
- Since 1971, we have taken 7,600 undergraduates safely to sea and home again with sailing over one million miles.
- We operate two 354’ sailing research vessels, both custom-designed and built for our specific educational purposes.
- Our ships are inspected and certified by the U.S. Coast Guard as Sailing School Vessels (SSV) and regularly meet or exceed the USCG safety requirements for their class.

Commitment to Affordability
- Over $1 million in merit-based scholarships and need-based aid awarded each year
- Institutional aid may be transferred in many cases
- Federal Aid applies (Stafford Loans, PLUS Loans, Pell Grants)
- Customized financial aid guidance and assistance
- A variety of payment plans to accommodate every family’s circumstances

Full Room & Board Included
- Private housing on the SEA campus during the shore component
- Field trip and lab fees included
- Prepaid grocery card onshore
- Three meals plus three snacks a day at sea, prepared by a professional steward with student assistant

Unparalleled Student Support
- Personalized advising and follow-up throughout the admissions process
- On-site orientation at the start of each program
- Full-time Head Resident and Student Services staff dedicated to student health, safety, and success
- Full-time Alumni Coordinator dedicated to post-program support and networking

Research: Building a Foundation
Authentic research experience is a hallmark of SEA Semester. Whether conducting advanced research in natural science, social science, public policy, or humanities, students gain skills that allow them to meet the professional standard for disciplinary data collection, analysis, and communication of results. SEA Semester students have co-authored publications in peer-reviewed literature and have presented at nationally and internationally recognized conferences.

In 2012, the Ocean Health Index (OHI) was developed by ocean experts at organizations including Conservation International, National Geographic, and the New England Aquarium to measure the impact of human actions on the ocean environment using globally applicable metrics. Broadly interdisciplinary, these metrics include food provision and fishing, coastal protection, tourism and recreation, coastal livelihoods, and ecosystems, clean waters, biodiversity, and carbon storage. The OHI metrics provide a valuable template for SEA Semester student contributions to this global-scale research effort. SEA collected data on plastic marine debris that has already been incorporated into OHI publications.

Institutional and Faculty funding from NSF, NOAA, and NASA supports acquisition of sophisticated oceanographic instrumentation and allows for an array of research projects. While aboard one of SEA’s sailing research vessels, all students participate in collection of data that are regularly deposited in national oceanographic archives. SEA has ongoing collaborative research projects with NOAA, Woods Hole Oceanographic Institution, Scripps Institution of Oceanography, as well as academic institutions including Stanford University and Harvard University.

Research: Making the Connections
SEA Semester students conduct research in a wide variety of areas. Below are some samples of common research topics and recent student projects.

Climate Change
Comparative carbon flux between upwelling regions of the Equatorial Pacific

SEA Semester: Oceans & Climate

Global Citizenship
Moscow: French influence and changes in the human environment

SEA Semester: Sustainability in Polyvalent Island Cultures & Ecosystems

Marine Biodiversity
Population genetics and dynamics of Caribbean sponge lobster populations in the Sargasso Sea

SEA Semester: Marine Biodiversity & Conservation

Marine Pollution
Marine debris in the regions of Jamaica and the Dominican Republic

SEA Semester: Colonization to Conservation in the Caribbean

Ocean Conservation
Assessing possible inhibitors to seasonal migration of commercial tuna stocks

SEA Semester: Oceans & Climate

More Information www.seas.org/research
Since 1971, SEA Semester has educated 7,600 undergraduates about the world's oceans.

Preparing Students for the Future
At SEA, we are invested in our students’ futures and we want them to succeed! SEA Semester students acquire lifelong skills like leadership, teamwork, discipline, and critical thinking, all of which prepare them for their chosen career. 75% of our alumni also report improved self-confidence and self-reliance as a result of their program. Important qualities that will take students far no matter where they choose to go.

Our Alumni Community
When students attend SEA Semester, they become part of a family. The unique experience SEA Semester offers has created a strong, active, and supportive alumni community of over 7,600 individuals. Always eager to help, our former students have proven to be an invaluable resource for personal and professional networking, and for employment opportunities in all career fields.

SEA Semester students go on to a wide variety of careers and post-graduation pursuits. Here are just a few of our alumni’s stories. Access more at www.sea.edu/alumni.

Since 1971, SEA Semester has educated 7,600 undergraduates about the world's oceans.

I made great friends. I set myself apart from other students by doing very interesting and unique research that I am sure grad schools will take notice of. I sailed a tall ship alone at night, hundreds of miles from shore, by the light of the moon. It was such a memorable and unique experience that can be found nowhere else. – Emily Allen, St. John’s University, Environmental Science Major

Ari S. Friedlandor, W-136
Winter 1995
Associate Professor, Marine Mammal Institute, Oregon State University
Duke University, PhD. Ecology, UNC-Wilmington, MA Marine Biology, Bates College, BS Biology.

WINTER 1995
A wildlife biologist, I work doing research on marine mammals. I have been lucky to work in several different environments around the world. I have been able to work on the coast of Peru, in the Galapagos, on the island of Tristan da Cunha, and on the island of Heard Island. I have been able to work with marine mammals in the ocean, on land, and in the air. I have been able to work with marine mammals in the ocean, on land, and in the air. I have been able to work with marine mammals in the ocean, on land, and in the air.

SEA Semester was truly a life changing opportunity and I would not be where I am today if it were not for the professional and personal opportunities I have been offered, without it. SEA Semester taught me so much about myself. The knowledge I obtained has been so valuable, as well as the friendships I made.

My master’s degree has me studying at three universities in three different countries (Hungary, Greece, Sweden). It has also been very enjoyable to be around people from all over the world. I have been able to meet and work with people from different cultures and backgrounds. I have been able to make lifelong friendships with people from all over the world.

Elena Hawke, C-255
Spring 2011
Graduate Student, Antarctica Youth Ambassador for Environment,
University of Canterbury (NZ), BS Environmental Management.

I was drawn to SEA Semester for the unique opportunity to immerse myself in natural history, ocean exploration, and science. Not a day goes by where I am not reminded of the lessons I learned and skills I acquired on the Northwest.

Ari S. Friedlandor, W-136
Winter 1995
A wildlife biologist, I work doing research on marine mammals. I have been lucky to work in several different environments around the world. I have been able to work on the coast of Peru, in the Galapagos, on the island of Tristan da Cunha, and on the island of Heard Island. I have been able to work with marine mammals in the ocean, on land, and in the air. I have been able to work with marine mammals in the ocean, on land, and in the air. I have been able to work with marine mammals in the ocean, on land, and in the air.

Laura Lilly, S-235
Spring 2004
California Sea Grant State Fellowship
Stanford University, MS Earth Systems (Marine Ecosystem Conservation, BS Earth Systems (Oceanography).

I recently began a yearlong fellowship through the California Sea Grant Program, in which I will be working with the West Coast Regional Ocean Observing Systems and the West Coast Governors’ Alliance on Ocean Health. My fellowship is to be the first step in a new career in marine conservation and the development of marine protected areas.

Jacob Keaton, S-186
Spring 2003
International Space Station Office Program Executive for Communications & Science Mission Development, NASA Headquarters
Johns Hopkins University, MA Government, George Washington University, BS International Affairs

I have a strong belief in the value of both science and exploration, and the unique opportunity to contribute to the future of space exploration, which I am sure is something I will champion for.
SEA Semester awards over $1 million per year in need-based aid and merit scholarships.

**How to Apply**

The following items are required in order to be considered for admission:

- $85 application fee – waived for affiliates
- Two original essay
- Official high school transcript (high school transcript also required for continuing students)
- Two academic references
- Photo or in-person interview with your Admissions Counselor

**Nool-Based Financial Aid**

We are committed to working with every qualified applicant to make SEA Semester affordable. When packaging aid, we take each situation into account. Thanks to generous donors who recognize the importance of our programs, we have significant financial aid to ensure that all students receive an affordable sea semester education. If you are interested in financial aid, you should apply for it as soon as possible. For more information, please visit the Admissions website.

**Merit Scholarships**

We award a wide range of merit scholarships to students who demonstrate exceptional academic performance. The top graduate students are eligible for merit scholarships based on their academic performance. In addition, we also offer a variety of merit scholarships to students who demonstrate exceptional leadership, service, or research.

Visit the Admissions website for more information about our scholarship programs.
“Sometimes we are lucky enough to know that our lives have been changed, to discard the old, embrace the new, and run headlong down an immutable course. It happened to me ... on that summer’s day, when my eyes were opened to the sea.”
Jacques Yves Cousteau

dream.

learn more
www.sea.edu
admissions@sea.edu

T: (800) 562-5653 x770

Credit:
Katherine Race Carter
Laurez Zilka Project Manager
Pyle Design Design
Photo credit: SEA alumni, faculty, staff, and friends.
Mission Statement

SEA is an educational institution dedicated to the exploration, understanding and stewardship of the oceans, and to the study of humanity’s relationship with the oceans. SEA offers students an interdisciplinary curriculum, on shore and at sea aboard tall ships, that provides challenging voyages of scientific discovery, academic rigor, and personal growth.

Sea Education Association
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