

# SCHOOL OF THE Coast and Environment

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The *School of the Coast & Environment* (SC&E) includes two academic departments - Department of Environmental Sciences and Department of Oceanography & Coastal Sciences. The school administers undergraduate and graduate degrees and facilitates the development of innovative research programs leading to a better understanding of coastal and environmental systems worldwide.

The school offers preparation for careers in environmental sciences, environmental planning and management, oceanography, coastal and marine sciences, and wetland studies. Undergraduate students are provided a strong academic background in general education and the basic sciences, may choose among five areas of specialty for their upper level courses, and have the opportunity to perform an independent research project in an environmental or coastal science related field.

For specific information concerning undergraduate degree requirements for the *BS in Coastal Environmental Science*, refer to the curriculum shown in either department. Detailed information about graduate degree programs in *Environmental Studies* or *Oceanography & Coastal Sciences* may be found in the Graduate Bulletin.

## ADMISSION REQUIREMENTS

Students who are considering a BS in Coastal Environmental Science should pay special attention to the mathematics and science courses they select and should consult a representative of the program prior to their initial registration. Students will be admitted to the program when they have earned 24 or more semester hours of credit in courses numbered 1000 or higher; maintained a gpa of at least 2.00 on both LSU and overall averages; and have passed all courses in mathematics and science with a grade of "C" or better, or received special approval from the dean of the school.

Transfer students from other accredited colleges or universities will be permitted to enter the program when they present an official transcript as evidence that they have met the current admission requirements of the university or school and receive approval from the dean of the school.

Students who, after initial enrollment in this school, wish to obtain credit for courses taken at other institutions, and who plan to use this course credit toward their degree requirements, must obtain approval from the dean.

## STUDENT RESPONSIBILITY

Students in this school and program bear final responsibility for selection of their academic programs and adherence to all published regulations and requirements of the school and the university. Each student must see his or her counselor in the program office of the school for a final degree checkout during

the semester prior to the semester in which the degree is to be awarded.

## DEGREE REQUIREMENTS

It is the student's responsibility to qualify for the bachelor's degree by meeting the following requirements:

- Meet the university's general education course requirements.
- Achieve a "C" or better in all basic science and mathematics requirements.
- Achieve a 2.00 gpa, as required by the University, for all work taken at LSU and on all work attempted at U. S. institutions.
- Successfully complete a minimum of 30 hours of residence in the Coastal Environmental Science program. These hours are included in the University requirement that a minimum of 25 percent of hours applied toward the degree be earned at LSU.
- Six hours of ROTC may be allowed for degree credit as long as they are taken at 3000-level or above.

## MINOR FIELD REQUIREMENTS (OPTIONAL)

The Department of Oceanography and Coastal Sciences offers a minor in *oceanography and coastal sciences*. Requirements for the minor are completion of OCS 2008 and OCS 2009 with a grade of "C" or better (8 hours) and completion of at least 10 additional credit hours approved electives with a grade of "C" or better, at least six hours of which must be at the 3000-level or higher.

Students majoring in Coastal Environmental Science may *not* choose oceanography and coastal sciences as a minor.

It should be noted that students may be eligible for undergraduate minors in both *Chemistry* and *Biological Sciences* depending upon the courses selected. See the College of Basic Sciences curriculum notes for specific requirements regarding minors in these programs.

## COLLEGE PROBATION

A student in the School of the Coast and Environment who fails to earn a 2.00 semester gpa in a regular semester or a summer term will be placed on college probation. In addition, students who fail to meet the school academic requirements noted in the section on degree requirements, or who enter the school with deficiencies, may be placed on college probation. At the discretion of the dean, a student who is on college probation and fails to meet the academic requirements, including earning a 2.00 or better semester gpa, may be declared ineligible to continue in the School (CES) program. A student on college probation who does earn a 2.00 or better semester gpa, who remediates course deficiencies, and who makes satisfactory progress in the degree program will be removed from college probation.

## SCHOOL OF THE COAST AND ENVIRONMENT • UNDERGRADUATE DEGREES

Department	Curricula	Degree
Environmental Sciences	Coastal Environmental Science	Bachelor of Science in Coastal Environmental Science
Oceanography and Coastal Sciences		

### PHI BETA KAPPA

Seniors and juniors with gpas of at least 3.60 and 3.90, respectively, are considered for membership in Phi Beta Kappa, the oldest scholastic honor society in the United States. Excellence in a variety of intellectual disciplines, rather than proficiency in a single field of study, is the major criterion for election.

The academic record should include satisfactory completion of the general education requirement, including two courses in English or American literature or literature in a foreign language (if not the major field); six-hour sequences in both a life science and a physical science, with an additional two hours of related laboratory work in one of these fields; upper division courses (3000-level or above) in at least two different humanities or social sciences outside the major; and electives that show a commitment to a liberal education.

Sophomores and juniors should consult with Phi Beta Kappa officers for more specific information. Specific requirements are described on the Phi Beta Kappa Web site [www.lsu.edu/student\\_organizations/phiбетakappa/](http://www.lsu.edu/student_organizations/phiбетakappa/).

### PHI KAPPA PHI

Founded in 1897 at the University of Maine, Phi Kappa Phi is the nation's oldest, largest, and most selective honor society for all academic disciplines. Its chapters are on nearly 300 campuses in the United States, Puerto Rico, and the Philippines. Each year, approximately 30,000 members are initiated. Some of the organization's more notable members include former President Jimmy Carter, writer John Grisham, NASA astronaut Wendy Lawrence, and Netscape founder James Barksdale. The LSU chapter was founded in 1930 as the 43<sup>rd</sup> chapter in the nation.

The mission of Phi Kappa Phi is to recognize and promote academic excellence in all fields of higher education and to engage the community of scholars in service to others. Phi Kappa Phi is unique because it recognizes superior scholarship in *all academic fields*, rather than restricting membership to a limited field. Juniors in the top 7.5 percent and seniors and graduate students in the top ten percent of their classes may be invited to become members of Phi

Kappa Phi. New LSU Phi Kappa Phi members are initiated and honored in the spring semester each year and wear identifying ribbons on their academic gowns at commencement exercises. Additional information about the Society may be found at [www.phikappaphi.org](http://www.phikappaphi.org).

### DEPARTMENT OF ENVIRONMENTAL SCIENCES

CHAIR • Lam, *Professor*  
GRADUATE ADVISOR • Reams, *Associate Professor*  
GRADUATE ACADEMIC COORDINATOR • St. Romain  
UNDERGRADUATE ACADEMIC COORDINATOR • Butler  
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PROFESSORS EMERITI • Hugh-Jones, Shane  
PROFESSORS • Lam, Overton, Pine (Research), Portier, Templet, Wilson  
ASSOCIATE PROFESSORS • Reams, Wascom  
ASSISTANT PROFESSORS • Hou  
ADJUNCT FACULTY • Cable, Faulkner, Iledare, Kaiser, Mendelssohn, Pulsipher, Sajo, Walsh, White, Wilkins, Xu

The *Department of Environmental Sciences* conducts teaching and research in environmental sciences, with participation by the Colleges of Agriculture, Art & Design, Arts & Sciences, Basic Sciences, Business Administration, Education, Engineering, the School of Veterinary Medicine, and the School of the Coast & Environment.

The department offers a variety of comprehensive undergraduate courses relating to the environment, although a bachelor's degree is not offered. Departmental faculty serve as adjunct faculty in several departments that offer doctoral programs.

The Department of Environmental Sciences (ENVS) is a multi-disciplinary research and academic unit whose mission is to solve environmental/toxicological problems both in Louisiana and the nation, and to apply modern environmental management and policy techniques to these problems.

The Department is committed to the

training of graduate students in the MS Environmental Sciences program and PhD minor in Environmental Sciences.

The MS program consists of thesis and nonthesis options. The thesis option requires a minimum of 30 semester hours of course work and six hours of thesis research. The nonthesis option, available only to students in the environmental planning and management discipline, requires 42 hours of course work and successful completion of a research paper.

The core curriculum in Environmental Sciences includes thirteen hours of core courses that all ENVS students are required to take. Additional course work will depend on the focus of each student's research interests, but at least half of every student's course work must come from ENVS graduate courses for the student to receive a MS in environmental sciences.

ENVS students are not required to concentrate in any particular area of environmental sciences. However, for those students who wish to concentrate their studies, the department offers concentrations in three areas, Environmental Toxicology, Environmental Planning and Management, and Wetland Science and Management. The third of these is an interdisciplinary concentration that is also available to students in the Department of Oceanography and Coastal Sciences. A collaborative graduate program with LSU-Shreveport is also available.

Research activities within the department include environmental assessment and resource sustainability, environmental microbial ecology, water quality, bioremediation, environmental management, environmental toxicology, genetic toxicology, environmental regulations, policy development, hazardous waste management, development of mobile analytical instrumentation, and the environmental impact of toxic chemicals, and remote sensing and geographic information science and their applications to environmental problems.

For additional information, see the section "Graduate School - Professional Program" in this catalog and the Department of Environmental Sciences Web site.

**CURRICULUM IN COASTAL ENVIRONMENTAL SCIENCE**

TOTAL SEM. HRS. • 120

FRESHMAN YEAR	SEM. HRS.
Biological Sciences 1201, 1208, 1202, 1209.....	8
Chemistry 1201, 1202, 1212.....	8
Mathematics 1550.....	5
Environmental Science 1126.....	3
English 1001.....	3
General education arts course.....	3
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	30

SOPHOMORE YEAR	SEM. HRS.
Chemistry 2261, 2262, 2364.....	8
Mathematics 1552.....	4
Experimental Statistics 2201 or Mathematics 2057.....	3
English 2000.....	3
Oceanography 2008, 2009.....	8
General education social science course.....	3
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	29

JUNIOR YEAR	SEM. HRS.
Biological Science 2051 or 2153.....	4
Oceanography 3103.....	3
Physics 2101, 2108, 2102, 2109.....	8
Mathematics 2065.....	3
Environmental Studies 3999.....	2
Approved coastal environmental science electives.....	4
Approved electives.....	3
General education humanities course.....	3
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	30

SENIOR YEAR	SEM. HRS.
Approved coastal environmental science electives.....	16
Approved electives.....	6
General education humanities courses.....	6
General education social science course.....	3
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	31

Approved coastal environmental science electives (20 hours required) are environmental courses numbered 3000 and higher and must include at least one course from four of the five areas of emphasis: (1) *physical science area*: OCS 4021, OCS 4024, OCS 4040, OCS 4128, OCS/GEOL 4164, OCS 4170, OCS 4210, ENVS/RNR 4900; (2) *chemistry area*: OCS 4126 or GEOL 4081, CHEM 4150, ENVS 4112, ENVS 4101, OCS 4165, BIOL 4087, CHEM 4263; (3) *biology area*: ENVS 3112, ENVS/EMS 4010, ENVS 4035, ENVS 4112, ENVS 4477, ENVS 4500, OCS 4012, OCS 4052, OCS/BIOL 4090, OCS/BIOL 4308, OCS 4372, OCS 4410, OCS 4550, BIOL 4087, BIOL 4262/4263, RNR/BIOL 4020, RNR 4037, RNR 4106, RNR/BIOL 4145; (4) *wetland sciences area*: OCS/BIOL 4308, OCS 4410, OCS 4560, OCS 4128, OCS 4165, OCS 4372, RNR/BIOL 4020; (5) *policy and management area*: ENVS 4261, ENVS 4262, ENVS 4264, ENVS 4266, OCS 4465, OCS 4560, RNR 4023, EMS 3040, EMS 3050, EMS 4020.

Additional courses numbered 3000 and higher outside of the coastal environmental science program may be substituted as

approved CES electives with prior written approval from the CES program undergraduate advisor. Many departments at LSU offer courses with an environmental emphasis or closely related topic. Please check with your advisor and the General Catalog for options.

Students are required to perform undergraduate research (ENVS 3999 or OCS 4001) working with a faculty member in their area of expertise. Contact the undergraduate program advisor for information about possible mentors.

It should be noted that students successfully completing requirements in BIOL 4987, BIOL 2153, and CHEM 4150 may be eligible for undergraduate minors in both *Chemistry* and *Biological Sciences*. See the College of Basic Sciences curriculum notes for specific requirements regarding minors.

**DEPARTMENT OF OCEANOGRAPHY AND COASTAL SCIENCES**

CHAIR • Gambrell, *Professor*  
 GRADUATE ADVISOR • Lindau, *Professor*  
 GRADUATE ACADEMIC COORDINATOR • Gibbs  
 UNDERGRADUATE ACADEMIC COORDINATOR • Butler  
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 FAX • 225-578-5328  
 E-MAIL • ocean@lsu.edu  
 WEB SITE • www.ocean.lsu.edu

BOYD PROFESSOR EMERITUS • Coleman, Roberts  
 PROFESSORS EMERITI • Chapman, Day, Gosselink, Huh, Murray, Wiseman  
 PROFESSORS • Baltz, Carney, Cowan, Fry, Gambrell, Hsu, Justic, LaRock, Laws, Lindau, Liu, Mendelssohn, Rose, Shaw, Stone, Turner, Twilley, Wilson  
 ASSOCIATE PROFESSORS • Benfield, Cable, Condrey, Inoue, Powers, Rouse, Walker  
 ASSISTANT PROFESSORS • Bargu-Ates, D'Sa, Huang, Li, White  
 ADJUNCT FACULTY • Bentley, Carman, P. Chapman, Chesney, Dagg, Dortch, Faulkner, Flegler, Furukawa, Geaghan, Hou, Lam, LaPeyre, McKee, Nyman, Portier, Powell, Rabalais, Reams, Reyes, Sammarco, Sasser

The Department of Oceanography & Coastal Sciences offers Master of Science and Doctor of Philosophy degrees and supports the expansion of marine-related instruction in other academic departments. Research and instruction in the department is focused on fundamental understanding and practical application of knowledge of the physical, chemical, biological, geological, and meteorological processes that affect those environments usually identified as marine, coastal, or estuarine.

The extensive marshes and estuaries of Louisiana (40 percent of the coastal wetlands in the United States) and the adjacent continental shelf, impacted by natural and anthropogenic activity, serve as a vast natural laboratory for much of the field research conducted by faculty and graduate students.

Research activity is carried out not only in Louisiana but also at such regional, national, and international sites as Florida Bay, the Everglades, the Orinoco River delta, and estuaries and coastal waters of Mexico, Denmark, France, and China.

Admission to the program in oceanography and coastal sciences requires admission to the Graduate School and a bachelor's or graduate degree in science or engineering from an accredited institution. Because of the nature of the fields of oceanography and coastal sciences, successful applicants to the program must first be accepted by a faculty member who will serve as their major advisor. Students interested in the department's program are, therefore, encouraged to contact faculty members who work in the student's field of interest. A description of all courses offered by the department is included in this catalog. In addition all students are required to have successfully completed differential and integral calculus. If an applicant has not completed these requirements by the time of enrollment in the Department of Oceanography and Coastal Sciences, they will be required to do so during their first year at LSU.

An undergraduate minor in *oceanography and coastal sciences* is available. Requirements for the minor are:

- Completion of OCS 2008 and 2009, with a grade of "C" or better (8 hrs.);
- Completion of at least 10 additional hours of approved electives with a grade of "C" or better, at least six hours of which must be at the 3000-level or higher.

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