Marine Science Summer

2020

Undergraduate and Graduate Courses at Dauphin Island Sea Lab

The Marine Environmental Science Consortium of Alabama

www.DISL.org
May 25-July 31, 2020
Marine Science Fellowships
at Dauphin Island Sea Lab

Eight undergraduate fellowships
- Ecology of marine & estuarine invertebrates & fishes
- Marsh & seagrass ecology
- Microbial ecology
- Molecular biology & genetics
- Biogeochemistry
- Benthic ecology
- Trophic interactions
- Toxicology
- Plankton ecology
- Marine mammal ecology
- Physical oceanography

Funded by:
NSF Research Experience For Undergraduates Program
and the Dauphin Island Sea Lab

On-site housing
Travel & food allowance
$5,000 stipend
Research experience with a faculty mentor
Professional development
Field trips

Under represented minorities, veterans, & non-traditional students encouraged to apply

Apply Today: www.disl.org/univ-prog/nsf-reu
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Deaphin Island Sea Lab
101 Bienville Blvd.
Dauphin Island, AL 36528

Phone: (251) 861-2141
Fax: (251) 861-7540
Information about DISL may also be obtained from our website at: www.disl.org.

MESC/Deaphin Island Sea Lab (DISL) values diversity and inclusion and seeks to create a climate of mutual respect and full participation. If you feel you may encounter barriers during your studies at DISL, based on the impact of a disability or health condition, please let your instructor know immediately to determine if reasonable accommodations can be provided. You will have an opportunity to identify your need(s) in detail during the course registration process. For more information please contact the DISL University Program’s Registrar Ms. Regina Kollegger.

Register online
www.disl.org/univ-prog/undergrad
The Dauphin Island Sea Lab

The Marine Environmental Sciences Consortium (MESC) was formed in 1971 by the Alabama Legislature as a result of the decision by the presidents of Alabama's largest colleges and universities to limit duplication of facilities and programs related to marine sciences. The MESC, now composed of twenty-three colleges and universities, is commonly referred to as the Dauphin Island Sea Lab (DISL), and is recognized regionally and nationally as a marine sciences institution of growing academic and research distinction.

At the DISL, year-round undergraduate and graduate education and basic and applied research are carried out through the University Programs, while K-12 education, teacher-training and educational outreach activities are directed through the Discovery Hall Programs.

The Facilities

The Dauphin Island Sea Lab is located on a 36-acre campus on the east end of Dauphin Island, 35 miles south of Mobile, Alabama. The facilities accommodate over 160 persons in residence. **The DISL campus is a no-smoking, no-weapons, no-pets campus.**

Support facilities include an apartment building for resident graduate students, 2 dormitories, a cafeteria, 8 three-bedroom houses for faculty, and a laundromat.

Recreational facilities on campus include volleyball and basketball courts, a swimming pool, and beach access.

Teaching facilities include 8 classrooms and laboratories.

The Study Hall, in the Administration building, is equipped with PCs for student use. A variety of Windows programs are available for word-processing, data management, statistical analysis, communications and graphic presentations.

Network and wireless Internet access is also available to registered students.

Scientific titles, periodicals and books, are accessible via our website, library.disl.org. Students can reserve titles via our website.

The graduate and research programs are housed in the **Wiese Marine Science Hall**, which contains 24,000 square feet of research labs with office space, and the 10,000-square foot **Shelby Center for Ecosystem-based Fisheries Management.**

Available instrumentation in the shared user Analytical Facility includes a flash combustion elemental analyzer for the determination of total carbon and nitrogen (ECS 4010). A Shimadzu TOC-5000 for determination of dissolved carbon including total dissolved carbon (TC), non-purgeable organic carbon (NPOC), dissolved inorganic carbon (DIC) with the capability of determining total dissolved nitrogen simultaneously (TN); and is equipped with an autosampler. Dissolved nutrients are measured with a Skalar San++ auto analyzer which has the capability of determining the dissolved species nitrite, nitrate + nitrite, ammonium and phosphate simultaneously with a 10ml sample volume. Total dissolved nitrogen (via persulfate oxidation), particulate organic phosphorous and total dissolved phosphorous methods have also been developed for the Skalar analyzer. The analytical facility is also equipped with an Agilent 7700 inductively coupled plasma mass spectrometer with sample introduction via an autosampler for dissolved samples and an ESI laser ablation platform (NWR -213) for sampling solid materials. DISL faculty also have a wide variety of chromatography systems (gas and HPLC), fluorometers, mass spectrometers and spectrophotometers.

Support equipment includes balances, a refrigerated centrifuge, a lyophilizer, muffle furnaces/ovens, research grade deionized water, computer equipment and the usual complement of laboratory materials.

**Field gear** includes high resolution CTDs and current meters, oxygen meters, plankton nets, corers, data
The Facilities (cont.)

buoys, transmissometers, water quality monitors, a variety of trawls and other nets for collecting, bottom grabs, photometers, refractometers, pH meters and a variety of water samplers.

Research vessels used for class and research activities include: the R/V Alabama Discovery, a 65-foot, diesel-powered fiberglass hull vessel; the R/V E. O. Wilson, a 42-foot fiberglass hull vessel; and several outboard powered boats (14 to 23 feet).

The Estuarium, our public aquarium, is an educational facility highlighting the four key habitats of coastal Alabama. It includes a 10,000-square-foot Exhibit Hall and Living Marsh Boardwalk. This facility is a showcase of plants, animals, and other natural resources found in local estuaries and surrounding marine habitats. Summer university students can visit without charge using their ID.

Discovery Hall Programs

In addition to undergraduate/graduate courses available to teachers and other educators through University Programs, DISL’s education/outreach group, Discovery Hall Programs (DHP), offers marine science education for all ages.

For pre-service/in-service teachers and informal educators, this year DHP offers three (3) professional development workshops: Coastal Ecosystems of the Gulf of Mexico (June 7-11); Restoration; What’s the Big Deal? (July 5-9); and Technology in Marine Science: ROVs (July 26-31). Continuing Education Units (CEUs) may be applied for through the participant’s school system, and participants may earn graduate credit through the University of West Alabama (at additional cost).

For K-12 students, DHP offers 4 different overnight camps for middle and high school students, day camps and a residential course in marine science.

High school students (currently in 9th-12th grade) interested in pursuing marine science careers can enroll in the intensive, month-long, state-approved Marine Science class (June 14 - July 10). For high school students (rising 9th-12th grade) not interested in an academic program, we offer BayVoyager, a week-long residential program of activities outdoors in marine environments around Dauphin Island (June 7-12 or July 26-31).

Middle school students (rising 7th-9th grade) can participate in Gulf Island Journey, a week-long, residential camp and introduction to coastal ecology (4 sessions: May 31-June 5, June 21-26, July 12-17, July 19-24).

Students (rising 7th-8th grade) with more of an interest in robotics and STEM can attend Marine DeTECHtives, a 3-night camp teaching beginner-level coding, circuitry and the use of these in marine research (June 28-July1).

Younger campers (rising 5th-6th grade) can participate in the 3-night residential camp, Barrier Island Explorer (3 sessions: June 14-17, June 12-15, July 19-22).

DHP also offers day camps for students, including Oceans Alive (June 3, June 19, July 23); BIO Blitz (June 5 or July 31); Ocean Bytes (June 12 or July 10); and Survivor-Dauphin Island (June 4, July 2, July 17).

Please consult our website for more details (www.disl.org/dhp/summer/). To register, contact DHP Registrar, Sara Johnson (251) 861-2141 ext. 7515, email DHPSummer@disl.edu.

Courses subject to change depending on enrollment.
University courses are taught year round by resident DISL faculty as well as visiting faculty from member institutions and elsewhere (see listing on page 17). Faculty not only teach formal courses, but also provide guidance for those students interested in undertaking directed studies in marine research. These one-on-one activities provide hands-on experience in marine research and analysis.

During the summer, the DISL University Programs undergraduate and graduate program is divided into three sessions: the May Term, First Session and Second Session.

The **May Term (May 06-May 22)** will take place over a period of several weeks during which 2 and 4-hour credit courses will be offered. During the May Term, students are able to take only one course. May Term courses will be held all day, week long.

In addition to the May session, there are two sessions of five-week courses: the **First Session (May 25 – June 26)**, and the **Second Session (June 29 – July 31)**. Courses of varying subject matter and credits allow students to take up to two courses (6 semester hours maximum) each session. If granted written permission by their DISL campus liaison officer, a student can take two 4-hr. courses during the First or Second Session.

The **special course offering** of Introduction to Neurobiology (July 13 - July 31) does not permit students to take other courses concurrently during Second session.

Whether taking one or two courses, students may start class at 7:30am and work some evenings and weekends to meet course requirements (working in the laboratory, on projects, or participating in extended field exercises and/or overnight field trips.) Most courses have snorkeling and/or other water activities. Students are cautioned about the intensity of taking the maximum number of hours for all three sessions.

**Course Registration**

As you identify the course(s) in which you would like to enroll, be sure that you have the prerequisites, and make sure that you do not have scheduling conflicts. It is also important to list both first and second choices for courses when registering.

Once you have designed a program of study and are ready to register, you must receive written approval from your campus liaison officer, as campus registration needs vary from institution to institution. Course numbers and course level (undergraduate/graduate) vary among the member schools. It is your responsibility to ensure that DISL courses will be accepted at your home institution.

Once you have received written approval from your campus liaison officer, you may submit your advising form showing first and second choice classes, and registration fee to the DISL UP Registrar. Registrations will not be accepted without a signed advisement form from your campus liaison officer. Please see page 22 for detailed registration procedures.

Because of limited class size (generally capped at 20), classes often fill early. It is important that your registration arrives at DISL by **February 14, 2020**, for priority registration, to insure you get your first choice courses. Register online for faster delivery! 

Register online  
www.disl.org/univ-prog/undergrad
**Summer University Programs Course Schedule 2020**

### May Session: May 11-May 22 - 2 weeks
one course only may be taken in this session -Lecture/Lab: M-F (9A-4P)

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Instructor(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>## Biology &amp; Conservation of Marine Turtles</strong></td>
<td>(2)UG/G Wibbels</td>
</tr>
<tr>
<td><strong>Dolphins and Whales</strong></td>
<td>(2)UG Lewis</td>
</tr>
<tr>
<td><strong>## Ecology of the Florida Everglades</strong></td>
<td>(2)UG/G Stanton</td>
</tr>
<tr>
<td><strong>Shark and Ray Biology</strong></td>
<td>(2)UG/G Drymon</td>
</tr>
<tr>
<td><strong>## Shellfish Aquaculture of the GOM</strong></td>
<td>(2)UG/G Walton</td>
</tr>
</tbody>
</table>

**Special May Session: May 6-22**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Instructor(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>## Coral Reef Biology and Ecology</strong></td>
<td>(4)UG/G Hoadley</td>
</tr>
</tbody>
</table>

**Special Session July 13-31**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Instructor(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intro. To Neurobiology</td>
<td>(3)Adv. UG/G Strang et al.</td>
</tr>
</tbody>
</table>

**Only one course per session **

### A Courses

**1st Session: May 25-June 26 - 5 weeks**

<table>
<thead>
<tr>
<th>Schedule A4- 4-hour courses:</th>
<th>Lecture: M/T/W (9A - 12P); Lab: M/T (1P– 4P)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine Behavioral Ecology</td>
<td>(4)UG/G Gier</td>
</tr>
<tr>
<td>Marine Biology</td>
<td>(4)UG/G Sprinkle</td>
</tr>
<tr>
<td>Marine Botany</td>
<td>(4)UG/G Lehman</td>
</tr>
<tr>
<td>Marine Mammals</td>
<td>(4)UG/G Lewis</td>
</tr>
<tr>
<td>Plankton Biology</td>
<td>(4)UG/G Moss</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Schedule A2- 2-hour courses:</th>
<th>Lecture: TH/F (9A – 11:30A); Lab: TH (1 P–4P)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coastal Birds</td>
<td>(2)UG/G Woodrey</td>
</tr>
<tr>
<td>Environmental Applications of GIS</td>
<td>2)UG/G Fleming</td>
</tr>
<tr>
<td>Hurricanes of the Gulf Coast</td>
<td>(2)UG/G Blackwell</td>
</tr>
</tbody>
</table>

**B Courses**

<table>
<thead>
<tr>
<th>Schedule B4- 4-hour courses:</th>
<th>Lecture: W (1P –4P), TH/F (9A – 12P); Lab: TH/F (1P– 4P)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coastal Wetlands</td>
<td>(4)UG/G Stanton</td>
</tr>
<tr>
<td>Intro to Oceanography</td>
<td>(4)UG/G DeRose</td>
</tr>
<tr>
<td>Marine Geology</td>
<td>(4)UG/G Elliott</td>
</tr>
<tr>
<td>Marine Vertebrate Zoology</td>
<td>(4)UG/G Albins</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Schedule B2- 2-hour courses:</th>
<th>Lecture: M/T (9A – 11:30A); Lab: M (1P – 4P)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine Restoration Ecology</td>
<td>(2)UG/G Baggett</td>
</tr>
<tr>
<td>Marine Technical Methods</td>
<td>(2)UG/G Dorgan</td>
</tr>
</tbody>
</table>

### C Courses

**2nd Session: June 29-July 31 - 5 weeks**

<table>
<thead>
<tr>
<th>Schedule C4- 4-hour courses:</th>
<th>Lecture: M/T/W (9A - 12P); Lab: M/T (1P– 4P)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intro to Oceanography</td>
<td>(4)UG/G Krause</td>
</tr>
<tr>
<td>Marine Biology</td>
<td>(4)UG/G Sprinkle</td>
</tr>
<tr>
<td>Marine Conservation Biology</td>
<td>(4)UG/G Baggett</td>
</tr>
<tr>
<td>Marine Invertebrate Zoology</td>
<td>(4)UG/G Carmichael</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Schedule C2- 2-hour courses:</th>
<th>Lecture: TH/F (9A – 11:30A); Lab: TH (1P –4P)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine Mammal Health</td>
<td>(2)UG/G Deming</td>
</tr>
<tr>
<td>Biotic Response to Sea Level Change</td>
<td>(2)UG Wofford</td>
</tr>
</tbody>
</table>

**D Courses**

<table>
<thead>
<tr>
<th>Schedule D4- 4-hour courses:</th>
<th>Lecture: W(1 –4P), TH/F(9A – 12P); Lab:TH/F (1P– 4P)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine Biology</td>
<td>(4)UG/G Sprinkle</td>
</tr>
<tr>
<td>Marine Ecology</td>
<td>(4)UG/G Dorgan</td>
</tr>
<tr>
<td>Marine Geology</td>
<td>(4)UG/G Minzioni</td>
</tr>
<tr>
<td>Marine Vertebrate Zoology</td>
<td>(4)UG/G Baker</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Schedule D2- 2-hour courses:</th>
<th>Lecture: M/T (9A:11:30A); Lab M (1p-4p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine Aquaculture</td>
<td>(2)UG/G Stoeckel</td>
</tr>
<tr>
<td>Shark and Ray Biology</td>
<td>(2)UG/G Drymon</td>
</tr>
</tbody>
</table>

### EX Course

**Special Session July 13-31**

<table>
<thead>
<tr>
<th>Lecture: M-Sat. 9A-5P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intro. To Neurobiology</td>
</tr>
</tbody>
</table>
Course Descriptions

**Directed Studies**

Students may enroll by special arrangement. All students registering for Directed Research must be accepted by a DISL faculty research supervisor who will be in residence at DISL during the research. Project topic, duration, credit and acceptance by a supervisor must be arranged prior to registration at DISL. Please contact one of the listed faculty members for suggested topics in their area of expertise. Students are expected to enroll and conduct their research over 5 weeks. Directed Studies may be taken to enhance a student’s research experience, but are not intended to substitute for research credit that is directly related to a student’s thesis project. Contact DISL UP Registrar for details.

**May Term- May 11 - 22**

**Biology and Conservation of Marine Turtles** (2cr UG/G) Dr. Wibbels

This introductory course will provide an overview of the biology and conservation of marine turtles. Topics to be covered include the identification, distribution, nesting behavior, migratory behavior, feeding ecology, population biology and genetics, developmental habitats, temperature-dependent sex determination, paleontology and conservation of marine turtles. Students will obtain a detailed knowledge of sea turtle biology; gain an understanding of why many sea turtle species have become endangered; and how proper management has allowed some populations to recover. The course will culminate with an overnight, multi-day field trip to sea turtle nesting beaches and foraging grounds in the southeastern U.S. The class will also visit sea turtle research and rehabilitation facilities. The overnight field trip will provide students with the opportunity to observe loggerhead, green, and leatherback turtles in their natural habitats.

*Special fees apply and will be determined based on enrollment (approximately $625.00). A trip deposit (1/2) will be due on March 06, 2020, with the remaining portion due on April 29, 2020. The fee is nonrefundable unless the class is canceled. Prerequisites - introductory course in biology.

**Dolphins and Whales** (2cr UG) Dr. Lewis

This class will be an introduction to the biology of cetaceans (toothed and baleen whales). Topics covered will include evolution, taxonomy, anatomy, physiology, genetics, behavior, and conservation related to species within this Order. Lab exercises will introduce current methods used in cetacean research.

Prerequisites - general biology.

*Students may need to arrive at 7:30am for field trips, and/or work evenings and weekends to meet course needs (working in the lab, on projects, or participating in field exercises and/or overnight field trips). Some courses may have snorkeling and other water activities.
## Course Descriptions

<table>
<thead>
<tr>
<th>May Term- May 11 - 22</th>
<th>may enroll in one course only this session</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ecology of the Everglades</strong> (2cr UG/G)</td>
<td>Dr. Stanton</td>
</tr>
</tbody>
</table>

This course examines the natural history and ecology of the world’s rarest and most endangered wilderness area. The course will consist of a week of lectures and discussions focusing on the history, geology, hydrology, and biota of this system, and then a week of field exploration to examine the Everglades and associated systems. The field component will consist of excursions and tent camping in several Florida State Parks. As such, participants should bring appropriate gear and be prepared to actively and cheerfully participate.

*Special fees apply and will be determined by the number of participants in the course (approximately $575.00). A trip deposit (1/2) is due on March 08, 2020, with the remaining portion due on April 29, 2020. The fee is nonrefundable unless the class is canceled. Email questions to lstanton@uwa.edu.

**Prerequisites** - undergraduate biology, zoology or botany.

| **Shark and Ray Biology** (2cr UG/G) | Dr. Drymon |

This course will provide an introduction to the biology of sharks and rays, with special emphasis on regional shark fauna and field techniques. Topics to be covered include chondrichthyan origin, systematics, sensory biology, locomotion, food consumption, osmoregulation, reproductive biology, life history, ecology, fisheries and conservation. Lectures will be supplemented with discussions of papers from the primary literature to familiarize students with current research. In addition, longline and gillnet sampling will provide students with firsthand knowledge of field techniques and local shark identification. **Prerequisites** - one course in general/organismal biology (or equivalent).

| **Shellfish Aquaculture of the Gulf of Mexico** (2cr UG/G) | Dr. Walton |

This course will provide students with an overview of the various types of shellfish aquaculture practiced in the Gulf of Mexico, both for public stock enhancement and private production. Students will gain a broader understanding of the scale and methods of oyster aquaculture, including cultching, on-bottom and off-bottom methods, as well as clam aquaculture, with field trips to operations in Louisiana, Mississippi, Alabama and Florida. Students will get an overview of shellfish hatchery production and techniques. This course is also designed to assist students with problem solving and communication skills.

*Special fees apply and will be determined based on student enrollment in the course (approximately $385.00). A trip deposit (1/2) is due on March 08, 2020 with the remaining portion due on April 29, 2020. Fee is nonrefundable unless the class is canceled. **Prerequisites** – One year of college-level biology or permission of instructor.

**Students may need to arrive at 7:30am for field trips, and/or work evenings and weekends to meet course needs (working in the lab, on projects, or participating in field exercises and/or overnight field trips). Some courses may have snorkeling and other water activities.**
## Course Descriptions

### Special May Term - May 6-22

May enroll in one course only this session

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Credits</th>
<th>Type</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coral Reef Biology and Ecology (4cr UG/G)</strong></td>
<td></td>
<td></td>
<td>Dr. Hoadley</td>
</tr>
<tr>
<td>Students will learn about the biology and ecology of coral reef and associated systems located throughout the Florida Keys. This course will explore the ecology and evolution of coral reef communities, with a view to understanding what is happening on reefs today. Lectures will cover energy flow across reefs, along with biogeochemical cycling important for continual reef development. Microbial interactions which govern the flow of carbon and nitrogen through coral reefs will also be discussed. Formal lectures will be accompanied by lab activities in the field designed to fully immerse students into each topic. Students will also work together to develop a research question focused on tropical marine ecology and then design and execute an experimental approach to answer the proposed question. <strong>Prerequisites</strong> - 2 semesters of general biology or equivalent required, general ecology course recommended. <em>Special fees apply and will be determined by the number of participants in the course (approximately $900.00). A trip deposit (1/2) is due on March 08, 2020, with the remaining portion due on April 29, 2020. The fee is nonrefundable unless the class is canceled. Email questions to <a href="mailto:khowdley@disl.edu">khowdley@disl.edu</a>.</em></td>
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### 1st Session - A4 Courses

May enroll in (1)4-hr & (1)2-hr course; or (2)2-hr courses

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Credits</th>
<th>Type</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Marine Behavioral Ecology (4cr UG)</strong></td>
<td></td>
<td></td>
<td>Dr. Gier</td>
</tr>
<tr>
<td>The course examines how animal behavior is influenced by and interacts with its environment, and the ecological and evolutionary significance of these behaviors in a marine setting. Students will learn principles of behavioral ecology as they relate to marine animals, become familiar with techniques for observing animal behavior and conducting behavioral experiments, and be introduced to methods for collecting and analyzing behavioral data. Snorkeling gear will be needed. <strong>Prerequisites</strong> - introductory course that covers zoology (either vertebrate or invertebrate).</td>
<td></td>
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<td></td>
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<tr>
<td><strong>Marine Biology (4cr UG)</strong></td>
<td></td>
<td></td>
<td>Dr. Sprinkle</td>
</tr>
<tr>
<td>A general survey of marine plants, invertebrates and vertebrates, the communities they form and the physical and chemical factors that influence them. Field trips include marsh, seagrass, and dune habitats. Sampling from research vessels and laboratory exercises will serve to introduce students to the diversity of marine habitats and organisms. Organisms will be identified using dichotomous keys. There will be overnight field trips. Snorkeling gear will be needed. <strong>Prerequisites</strong> - general biology.</td>
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<tr>
<td><strong>Marine Botany (4cr UG/G)</strong></td>
<td></td>
<td></td>
<td>Dr. Lehman</td>
</tr>
<tr>
<td>A general survey of marine algae (microscopic and macroscopic), as well as salt marsh vegetation, mangroves, seagrasses and maritime forest communities. Lectures will emphasize identification, distribution, structure, ecology and physiology. Overnight field and laboratory work is involved, and may include wading and snorkeling. Snorkeling gear will be needed. <strong>Prerequisites</strong> - general biology.</td>
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</tr>
</tbody>
</table>
## Course Descriptions

### 1st Session - A4 Courses

<table>
<thead>
<tr>
<th>May 25- June 26</th>
<th>may enroll in (1)4-hr &amp; (1)2-hr course; or (2)2-hr courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine Mammals (4cr UG)</td>
<td>Dr. Lewis</td>
</tr>
<tr>
<td>This course will cover the evolutionary history, taxonomy/classification, anatomy, physiology, behavior and conservation/management issues of marine mammals (cetaceans, pinnipeds, mustelids, sirenians and the polar bear). <strong>Prerequisites</strong> – general biology.</td>
<td></td>
</tr>
<tr>
<td>Plankton Biology (4cr UG/G)</td>
<td>Dr. Moss</td>
</tr>
<tr>
<td>Students will learn about the physiology and ecology of coastal marine plankton of the Northern Gulf of Mexico. We will study the phytoplankton, holoplanktonic and meroplankton zooplankton and the gelatinous plankton and will take advantage of the great diversity of larval forms at the end of the ‘Spring Bloom’ and the open water plankton known to be pushed ashore in June. We will examine the microbial loop, harmful algal blooms (HABs), invasive forms of plankton and mechanisms underlying explosive plankton blooms, including ‘Jelly World’ phenomena and anthropogenic influences. Students will identify and quantitate organisms using classic microscopy, filtration and counting techniques, as well as modern molecular and imaging methods. We will have one nearshore boat trip during the day, one offshore trip at night, and a minimum of three shore trips to examine plankton in different shoreside habitats. Students will keep a daily journal, will give a ten-minute presentation on his/her favorite plankter and conduct a research project on that organism. The student will then present his/her research project to the class. Graduate students will be expected to do the same the work as undergraduates and also 1) lead one lecture for the class and 2) lead a scholarly journal club session on current literature.</td>
<td></td>
</tr>
</tbody>
</table>

### 1st Session - A2 Courses

<table>
<thead>
<tr>
<th>May 25- June 26</th>
<th>may enroll in (1)4-hr &amp; (1)2-hr course; or (2)2-hr courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coastal Birds of Alabama (2cr UG)</td>
<td>Dr. Woodrey</td>
</tr>
<tr>
<td>This course highlights the diverse coastal birdlife of northern Gulf of Mexico. With a focus on the study of avian ecology in the field, this class will include a significant emphasis on the use of both sight and sound as means of field identification. A variety of habitats will be explored, including barrier island nesting grounds, the Mobile-Tensaw River basin, local marshes and other unique coastal habitats. Students will also be introduced to a variety of field ornithology techniques including bird-banding, survey techniques, and monitoring methodologies. Email questions to <a href="mailto:Mark.Woodrey@msstate.edu">Mark.Woodrey@msstate.edu</a>. <strong>Prerequisites</strong> – undergraduate biology or zoology.</td>
<td></td>
</tr>
<tr>
<td>Environmental Applications of GIS</td>
<td>Dr. Fleming</td>
</tr>
<tr>
<td>This course consists of learning applied mapping and analysis with GIS and will leverage other geospatial techniques including remote sensing, geovisualization, and spatial analysis with particular emphasis on environmental applications. Students will use knowledge acquired from readings, guided activities, and instructor demonstrations to apply GIS data including vector and raster spatial data, imagery, maps, and surface models in examinations of contemporary coastal and marine science issues. Students will be exposed to working with spatial information regarding human and natural hazards and disasters, land use and land cover, coastal monitoring, and other relevant data types. Some lecture is required, but this course will emphasize a “hands-on” approach to learning GIS through practical assignments and projects in a computer lab and in the field. Industry leading ArcGIS software will be used along with exposure to online and open-source technology. <strong>Prerequisites</strong> - statistics or equivalent course in mathematics.</td>
<td></td>
</tr>
</tbody>
</table>
Course Descriptions

1st Session - A2 Courses
May 25- June 26

May enroll in (1)4-hr & (1)2-hr course; or (2)2-hr courses

Hurricanes of the Gulf Coast (2cr UG/G)  Dr. Blackwell
This is an introductory survey course on hurricanes with emphasis on hurricanes in the Gulf of Mexico. Topics include: 1) the hurricane problem along the Gulf Coast and a review of some of the infamous Gulf Coast hurricanes of the last 150 years; 2) Atlantic/Caribbean/Gulf hurricane climatology; 3) the effects of El Niño and multi-decadal changes in the Atlantic circulation on hurricane frequency; 4) favorable/unfavorable environments for hurricane development and intensification; 5) hurricane features and structure; 6) hurricane movement and steering mechanisms; 7) coastal and inland effects from landfalling Gulf Coast hurricanes; and 8) Gulf hurricane forecasting (where will the storm go and how strong will it be at landfall). A half-day boat trip along much of the length of Dauphin Island is planned (weather permitting) during the last week of class to inspect the impact of recent hurricanes on this barrier island. Prerequisites - none.

1st Session - B4 Courses
May 25- June 26

May enroll in (1)4-hr & (1)2-hr course; or (2)2-hr courses

Coastal Wetlands Ecology (4cr UG/G)  Dr. Stanton
This course will focus on coastal and nearshore wetland areas, with an emphasis on the biogeochemical processes that occur within, and issues that threaten and protect these important resources. Wetlands not only provide critical habitat for many aquatic and semi-aquatic species, they are also important for primary productivity, transformation of nutrients, pollutant removal, as well as providing protection from storm surges and floodwaters. Insight into wetland ecology requires understanding of the unique interactions between biology, chemistry and hydrology. Prerequisites - General biology and botany or zoology.

Intro to Oceanography (4cr UG/G)  Dr. DeBose
This hands-on course provides students an opportunity to learn about the physics, chemistry, geology, and biology of the ocean. Students will apply this knowledge first hand by implementing sample collection strategies on board a research vessel during cruises on Mobile Bay and the Gulf of Mexico. Through class discussion of recent oceanographic discoveries and core concepts, and learning user-friendly ocean data visualization software, this course will enable students to then interpret oceanographic data collected during their cruises and to create clear and concise presentations. Typical data collected on board the research vessel will include hydrographic (temperature, pH, salinity, inorganic nutrients, light intensity) and biological (phytoplankton, zooplankton) variables that are collectively processed and visualized. Students should have a laptop equipped with word processing and spreadsheet software. Prerequisites - basic science major.

Marine Geology (4cr UG/G)  Dr. Elliot
A study of the geology of the ocean basins, with special emphasis on the continental shelves, their sediments and the sedimentary processes at work there with emphasis on the northeast Gulf of Mexico. Field trips will be taken to study beach processes and sediments in Mobile Bay and offshore. Students will be introduced to the following: technical writing; conducting a research project; working as a team member; data management; concepts of marine geology; critical thinking; principles of science (hypothesis testing). Participation in overnight field trips is a part of this course. Prerequisites - introductory geology recommended.
## Course Descriptions

<table>
<thead>
<tr>
<th>1st Session - B4 Courses</th>
<th>May 25- June 26</th>
<th>may enroll in (1) 6hr only; (1)4-hr &amp; (1)2-hr course; or (2)2-hr course</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Marine Vertebrate Zoology</strong> (4cr UG/G) Dr. Albins</td>
<td></td>
<td>A survey of marine fishes, reptiles and mammals, with an in-depth comprehensive treatment of their systematics, zoogeography and ecology. Field and laboratory work will stress the vertebrate fauna of the northern Gulf of Mexico and most of the course will be devoted to fishes. Students completing this course will: 1) have a basic understanding of the biology, ecology, physiology and systematics of the various marine vertebrate taxa; 2) gain experience in field and lab identification of members of the various vertebrate taxa; and 3) gain experience in collecting various marine and island vertebrate taxa. <strong>Prerequisites</strong> - two semesters of general biology (or equivalent) and accompanying labs.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1st Session - B2 Courses</th>
<th>May 25- June 26</th>
<th>may enroll in (1) 6hr only; (1)4-hr &amp; (1)2-hr course; or (2)2-hr course</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Marine Restoration Ecology</strong> (2cr UG/G) Dr. Baggett</td>
<td></td>
<td>This course will provide an overview of the scientific and technical principles of marine habitat restoration. We will discuss the role of key ecological concepts in restoration, and the role of restoration in science and society. Students will identify structural and functional components of marine habitats and learn how to design restoration projects and monitoring plans that capture these key components of structure and function. Students will learn to recognize when adaptive management may be needed, and how to formulate strategies to correct or maintain the desired trajectory of restored habitats. Students will also be introduced to the interdisciplinary nature of restoration science, including social, ethical, political and economic aspects. Lectures will be supplemented with primary literature reading assignments. Field trips will allow students to see local restoration sites and learn monitoring techniques used in various habitats (e.g., salt marsh, oyster reef, seagrass bed). This course is designed for undergraduate and graduate students. <strong>Prerequisites</strong>- One year of undergraduate introductory science (preferably including an ecology course) or consent of the instructor.</td>
</tr>
</tbody>
</table>

| **Marine Technical Methods** (2cr UG/G) Dr. Dorgan | | This course will provide an introduction to different methods of sensing the ocean, including building and testing simple sensors, e.g., temperature and light, using Arduino microcontrollers and software, use of instruments to collect high-resolution data, and some background on how technology has led to key advances in marine science. The course will be primarily project-based, with students working together to build instruments, learn basic programming skills to control sensors, and going in the field to test instruments and collect environmental data. **Prerequisites**- general biology, chemistry, physics or equivalent. |
# Course Descriptions

## 2nd Session - C4 Courses

**June 29 - July 31**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Credits</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Marine Biology (4cr UG)</strong></td>
<td>4</td>
<td>Dr. Sprinkle</td>
</tr>
<tr>
<td>A general survey of marine plants, invertebrates and vertebrates, the communities they form and the physical and chemical factors that influence them. Field trips include marsh, seagrass, and dune habitats. Sampling from research vessels and laboratory exercises will serve to introduce students to the diversity of marine habitats and organisms. Organisms will be identified using dichotomous keys. There will be overnight field trips. Snorkeling gear will be needed. <strong>Prerequisites</strong> - general biology.</td>
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<td></td>
</tr>
</tbody>
</table>

| **Marine Conservation Biology (4cr UG/G)**                                       | 4       | Dr. Baggett     |
| This advanced course is open to juniors, seniors and graduate students. This course will explore the major threats to marine biodiversity as well as the pros and cons of the potential solutions to these threats. Students will participate in class discussions on current topics in marine conservation biology and will critically evaluate marine conservation primary literature as well as the viewpoints of the various entities involved in marine conservation issues. In addition, students will participate in field trips that support topics covered in lectures and will demonstrate the application of current principles in marine conservation. **Prerequisites** - an introductory class in either marine or general ecology. |

| **Marine Invertebrate Zoology (4cr UG/G)**                                       | 4       | Dr. Carmichael |
| This course surveys the morphology, natural history and evolutionary relationships of the marine invertebrates. The course includes lectures, laboratory exercises and extended field trips. Participation in overnight field trips is a part of this course. Snorkeling gear will be needed. **Prerequisites** - introductory biology or zoology. |

| **Intro to Oceanography (4cr UG/G)**                                             | 4       | Dr. Krause     |
| This hands-on course provides students an opportunity to learn about the physics, chemistry, geology, and biology of the ocean. Students will apply this knowledge first hand by implementing sample collection strategies on board a research vessel during cruises on Mobile Bay and the Gulf of Mexico. Through class discussion of recent oceanographic discoveries and core concepts, and learning user-friendly ocean data visualization software, this course will enable students to then interpret oceanographic data collected during their cruises and to create clear and concise presentations. Typical data collected on board the research vessel will include hydrographic (temperature, pH, salinity, inorganic nutrients, light intensity) and biological (phytoplankton, zooplankton) variables that are collectively processed and visualized. Students should have a laptop equipped with word processing and spreadsheet software. **Prerequisites** - basic science major. |

Register online

www.disl.org/univ-prog/undergrad
Course Descriptions

2nd Session - C2 Courses  
June 29 - July 31  
may enroll in (1)4-hr & (1)2-hr course; or (2)2-hr courses

Biotic Response to Sea Level Change (2cr UG/G)  
Dr. Wofford

This course is an overview of sea level change over geologic time with emphasis on mechanisms of change, evidence of past sea level changes, and the impact of expected sea level changes on the marine biosphere. Topics include: global climate change and eustasy, tectonically-forced sea level change, epeiric seas, transgression and regression sedimentology, coastal geomorphology, and marine and coastal habitat change. Field studies emphasize local evidence for sea level change, habitat shift and reorganization, and human response to changing sea level, such as community displacement, shoreline stabilization, and beach-fill nourishment. This course is designed for undergraduate and graduate students in the physical and biological marine sciences.

Marine Mammal Health (2cr UG/G)  
Dr. Deming

The course will provide an overview of marine mammal stranding response, health assessments and common diseases of bottlenose dolphins, manatees and sea lions. Lectures will be focused on how marine mammals act as sentinels for ocean health, including the effects of oils spills, harmful algal blooms and marine debris on marine mammals. This course requires participation in marine mammal necropsies, which includes hands-on dissection of carcasses, internal organs, blood, and can have foul smells. Due to potential risk of zoonotic disease, you may not want to participate in necropsies if you are pregnant or immune compromised. Personal protective equipment will be available and is required. A fieldtrip to an aquarium will provide the opportunity to see medical examinations of dolphins and sea lions, and participation in live and dead marine mammal stranding response will be available on a volunteer basis as opportunities present throughout the course. Prerequisites - 3rd or 4th year undergraduate- completion of Dolphins and Whales or Marine Mammals course; graduate student; or consent of the instructor.

2nd Session - D4 Courses  
June 29 - July 31  
may enroll in (1)4-hr & (1)2-hr course; or (2)2-hr courses

Marine Biology (4cr UG)  
Dr. Sprinkle

A general survey of marine plants, invertebrates and vertebrates, the communities they form and the physical and chemical factors that influence them. Field trips include marsh, seagrass, and dune habitats. Sampling from research vessels and laboratory exercises will serve to introduce students to the diversity of marine habitats and organisms. Organisms will be identified using dichotomous keys. There will be overnight field trips. Snorkeling gear will be needed. Prerequisites - general biology.

Marine Ecology (4cr UG/G)  
Dr. Dorgan

This advanced course is open to juniors, seniors and graduate students. The class will study marine organisms as they interact with each other and their environment, and examine ecological theories and the experimental basis of our current knowledge. The laboratory will consist of field trips to a wide variety of marine habitats and field problems which will be examined by student teams in small groups. Habitats selected for emphasis include coral reefs, kelp forests, seagrass meadows, the rocky intertidal and deep-sea hydrothermal vents. Snorkeling gear will be needed. Prerequisites - general biology.

**Students may need to arrive at 7:30am for field trips, and/or work evenings and weekends to meet course needs (working in the lab, on projects, or participating in field exercises and/or overnight field trips). Some courses may have snorkeling and other water activities.**
**2nd Session - D4 Courses**
June 29 - July 31

**Marine Geology (4cr UG/G)**
Dr. Minzoni

A study of the geology of the ocean basins, with special emphasis on the continental shelves, their sediments and the sedimentary processes at work there with emphasis on the northeast Gulf of Mexico. Field trips will be taken to study beach processes and sediments in Mobile Bay and offshore. Students will be introduced to the following: technical writing; conducting a research project; working as a team member; data management; concepts of marine geology; critical thinking; principles of science (hypothesis testing). Participation in overnight field trips is a part of this course. **Prerequisites** - introductory geology recommended.

**Marine Vertebrate Zoology (4cr UG/G)**
Dr. Baker

A survey of marine fishes, reptiles and mammals, with an in-depth comprehensive treatment of their systematics, zoogeography and ecology. Field and laboratory work will stress the vertebrate fauna of the northern Gulf of Mexico and most of the course will be devoted to fishes. Students completing this course will: 1) have a basic understanding of the biology, ecology, physiology and systematics of the various marine vertebrate taxa; 2) gain experience in field and lab identification of members of the various vertebrate taxa; and 3) gain experience in collecting various marine and island vertebrate taxa. **Prerequisites** - two semesters of general biology (or equivalent) and accompanying labs.

**2nd Session - D2 Courses**
June 29 - July 31

**Marine Aquaculture (2cr UG/G)**
Dr. Stoeckel

This course will introduce students to techniques in live animal culture with an emphasis on basic principles that can be applied to the culture of any organism for research, display or commercial profit. Topics discussed will include: water chemistry, filtration, production techniques, reproduction and nutrition. This course is also designed to assist students with problem solving and communication skills. **Prerequisites** - general biology required; ichthyology, limnology, and invertebrate zoology suggested, but not required.

**Shark and Ray Biology (2cr UG/G)**
Dr. Drymon

This course will provide an introduction to the biology of sharks and rays, with special emphasis on regional shark fauna and field techniques. Topics to be covered include chondrichthyan origin, systematics, sensory biology, locomotion, food consumption, osmoregulation, reproductive biology, life history, ecology, fisheries and conservation. Lectures will be supplemented with discussions of papers from the primary literature to familiarize students with current research. In addition, longline and gillnet sampling will provide students with firsthand knowledge of field techniques and local shark identification. **Prerequisites** - one course in general/organismal biology (or equivalent).

**Students may need to arrive at 7:30am for field trips, and/or work evenings and weekends to meet course needs (working in the lab, on projects, or participating in field exercises and/or overnight field trips). Some courses may have snorkeling and other water activities.**
Students will be introduced to the neuroanatomy and neurophysiology of marine invertebrates and vertebrates. The following aspects of neurobiology will be covered in lectures and laboratory exercises: neurons and glia; passive properties of neurons; resting potentials; action potentials; synaptic transmission; neurotransmitters and receptors; sensory transduction; muscle innervation and contraction; sensorimotor integration; and neurophysiological bases of behavior. In addition, students will use computer simulations that allow a more in-depth exploration of cellular neurobiology than is possible in standard laboratory classes. Students will be introduced to aspects of molecular biology and its applications to neuroscience. This class will include evening and Saturday sessions. The following are recommended but not required: general chemistry and general physics; or permission of the instructor. **Prerequisites** - introductory biology.

**Students may need to arrive at 7:30am for field trips, and/or work evenings and weekends to meet course needs (working in the lab, on projects, or participating in field exercises and/or overnight field trips). Some courses may have snorkeling and other water activities.**
Albins, Mark A., Ph.D. (Oregon State University, 2011). Research Associate, University of South Alabama. The ecology of reef-associated marine fishes, including effects of invasive species and fishing on populations and communities. malbins@disl.edu.

Baggett, Lesley P., Ph.D. (Univ. of South AL, 2010). Assistant Professor, Univ. of Mobile. Benthic ecology and restoration of nearshore environments such as seagrass beds and oyster reefs. The effects of eutrophication on seagrass beds and their associated organisms. lbaggett@umobile.edu.

Baker, Ronald, Ph.D. (James Cook Univ., 2006). Assistant Professor, University of South Alabama, and Senior Marine Scientist, Dauphin Island Sea Lab. Coastal and estuarine fisheries ecology; nursery ground ecology; predation and food-web ecology; seascape use of fishery species. rbaker@disl.edu.

Blackwell, Keith, Ph.D. (Texas A&M Univ., 1990). Tropical Weather Specialist and Forecaster, Coastal Weather Research Center and retired Associate Professor of Meteorology, Univ. of South AL. Tropical meteorology and hurricanes; weather analysis and forecasting; synoptic and mesoscale meteorology; numerical weather prediction. kblackwell@southalabama.edu.

Carmichael, Ruth, Ph.D. (Boston Univ., 2004). Senior Marine Scientist II DISL, Associate Professor, Dept. of Marine Sciences, Univ. of South AL. Marine ecosystem and organismal responses; understanding biological and physiological responses to environmental change such as nutrient enrichment, climate change and other perturbations. Application of methods in stable isotope and population ecology. rcarmichael@disl.edu.

DeBose, Jennifer, Ph.D. (Univ. of California - Davis, 2008) Animal behaviour and marine chemical ecology; ecology of fish aggregations; coral reef ecology; and water quality monitoring. jenndebose@gmail.com

Deming, Alissa, DVM, Ph.D. (Univ. of Florida 2012). Veterinarian and Postdoctoral Researcher, DISL, Marine Mammal Research Center and Alabama Marine Mammal Stranding Network. Marine mammal health, infectious disease and anthropogenic impacts on ecosystem health; wild dolphin and manatee health assessments, stranding response and necropsy; emerging diseases, oncology and virology. ademing@disl.edu

Dorgan, Kelly M., Ph.D. (Univ. of Maine, 2007). Senior Marine Scientist I DISL, Assistant Professor, Dept. of Marine Sciences, Univ. of South AL. Sediment ecology, focused primarily on organism-environment interactions; biomechanics and energetics of burrowing; biological-physical interactions; functional morphology of invertebrates. kdorgan@disl.edu.

Drymon, J. Marcus, Ph.D. (Univ. of South AL, 2010). Assistant Extension Professor, MSU Coastal Research and Extension Center. Research interests include marine fisheries ecology, specifically trophic interactions/food web dynamics of upper trophic-level predators and ecosystem based fishery management. marcus.drymon@msstate.edu.
**DISL Summer Program Faculty/Research Interest**

**Elliott, Emily A. (Timmons), Ph.D.** (Univ. of North Carolina at Chapel Hill, 2017). Postdoctoral Researcher/Adjunct Faculty, Univ. of Alabama. Coastal geology and geomorphology, paleo- and geochronology, sedimentology and paleotempestology, focusing on understanding the climatic drivers of coastal change. emily.elliott@ua.edu.

**Fleming, Jonathan P., Ph.D.** (Mississippi State University, 2012) Assistant Professor, Department of Geography and Sociology, Howard College of Arts and Sciences, Samford University. Current research topics include identifying mechanisms and patterns of species invasions, aquatic and wetland plants, and spatial ecology projects using applied GIS to understand contemporary environmental change. jfleming@samford.edu


**Hoadley, Kenneth, Ph.D** (Univeristy of Delaware, 2016) Senior Marine Scientist I DISL, Assist. Professor, Dept of Biological Sciences, University of Alabama. Current research topics include coral reef biology and marine algal photobiology and primary production. khoadley@disl.edu

**Keyser, Kent, Ph.D.** (SUNY Stony Brook, 1980). Professor, Dept. of Vision Sciences, Assistant Vice President for Research, Univ. of AL B’ham. Communication between neurons: neurotransmitters, neurotransmitter receptors in the retina and brain. ktkeyser@uab.edu.

**Krause, Jeffrey, Ph.D.** (Oregon St. Univ., 2008). Senior Marine Scientist I DISL, Assistant Professor, Dept. of Marine Sciences, Univ. of South AL. Marine diatom and cyanobacteria ecology and understanding the coupling between the marine biogeochemical cycle of silicon with those for carbon and nitrogen. jkrause@disl.edu.

**Lehman, Roy L., Ph.D.** (Texas A&M Univ., College Station, 1993) Professor of Botany, Texas A&M University-Corpus Christi. Retired but active. Marine and coastal terrestrial plants of the Gulf of Mexico and the Caribbean, specifically coastal halophytes and seaweeds. The taxonomy and ecological monitoring of coastal plant habitats especially studies of distribution, abundance and interactions. roy.lehman@tamucc.edu

**Lewis, Jennifer, Ph.D.** (Fla. Int. Univ., 2010). Director, Tropical Dolphin Research Foundation. Animal movement and the benefits of group formation; foraging ecology; behavioral ecology of tropical dolphin species; marine ecological conservation with focus on non-lethal effects of vessel traffic on marine species. jlewi006@fiu.edu.

**Minzoni, Rebecca Totten, Ph.D.** (Rice University, 2015) Asst. Professor, Dept. of Geological Sciences, and Director of Evolutionary Studies, College of Arts & Sciences, University of Alabama. Current research topics include past and present oceanographic and climatic influences on the stability of Antarctic ice shelves; floods, storms, and sea-level impacts in the northern Gulf of Mexico; and marine diatoms and foraminifera as recorders of changing ocean environments. rminzoni@ua.edu

**Moss, Anthony G., Ph.D.** (Boston Univ., 1986). Associate Professor of Biological Sciences, Marine Biology Program Coordinator, Auburn Univ. Ctenophores and jellyfish, salps, marine microbial biology, cilia & flagella. mossant@auburn.edu.
**DISL Summer Program Faculty/Research Interest**

*Smee, Lee, Ph.D. (Georgia Tech, 2006) Chair DISL University Programs, Senior Marine Scientist II DISL, Assoc. Professor, Dept. of Marine Sciences, Univ. of South AL. Current research topics include oyster reef ecology, mangrove encroachment, pesticide effects on blue crabs, and biogeography of seagrass communities in the Gulf of Mexico. lsmee@disl.edu

Sprinkle, Amy, Ph.D. (Univ. of Del., 2009). Marine Science Instructor, Univ. South AL. Oceanography, chemical & biological oceanography, marine biology, biological sciences, terrestrial and aquatic ecology, and trophic dynamics. sprinkle@southalabama.edu

Stanton, Lee, Ph.D. (LA State Univ., 2005). Associate Professor, Univ. of West AL., Director of Black Belt Conservation and Research Institute. lstanton@uwa.edu.

Stoeckel, Jim, Ph.D. (Miami University, 2007). Associate Professor, Auburn Univ., School of Fisheries, Aquaculture, and Aquatic Sciences. Crustacean and molluscan ecology and aquaculture; physiological ecology; ecotoxicology; special focus on burrowing crayfish and mussels. jas0018@auburn.edu.

Strang, Christianne, Ph.D. (Univ. of Ala. at B’ham., 2004). Assistant Professor, Dept. of Psychology, Univ.of AL B’ham. Visual processing in health and disease. cstrang@uab.edu.

*Valentine, John, Ph.D. (Univ. of Ala., 1989). Executive Director and Senior Marine Scientist III DISL, Professor, Dept. of Marine Sciences, Univ. of South AL. jvalentine@disl.edu.

Walton, William, Ph.D. (Univ. of Maryland, 2003). Associate Professor, Auburn Univ., School of Fisheries, Aquaculture and Aquatic Sciences, Marine Ext. Specialist, AL. Cooperative Extension System. Marine invertebrate fisheries, restoration and aquaculture. billwalton@auburn.edu.

Wibbels, Thane, Ph.D. (Texas A&M Univ., 1988). Associate Professor of Biology, Univ. of AL B’ham. The biology of temperature-dependent sex determination in reptiles, including emphasis on its implications for the ecology, evolution and conservation of sea turtles. twibbels@uab.edu.

Wofford, Sarah, Ph.D. (Bowling Green State University, 2017) Assist. Professor, Dept. of Biology, Jacksonville State Univ. Current research topics include the aggressive behaviors of aquatic invertebrates, the chemical ecology of social interactions, and the effects of environmental change on resource acquisition and agonistic behaviors. swofford@jsu.edu

Woodrey, Mark, Ph.D. (Univ. of Southern Miss., 1995). Avian Ecologist/Coastal Ecologist at MS State Univ., Research Coordinator at Grand Bay National Estuarine Research Reserve. Marsh bird ecology and conservation; monitoring programs for biological resources; tidal marsh ecology; ecological effects of sea level rise on coastal ecosystems. msw103@ra.msstate.edu.

*These faculty are not instructing undergraduate courses this year.
Fees, Tuition, Room and Board Costs

**Tuition Paid to Your University**
After confirmation of enrollment at DISL, students must register and pay course tuition at their home campus. Birmingham Southern College applicants should check with their campus liaison officer for appropriate procedures for tuition payment.

**ALL Room, Board, Lab and Activity Fees are paid directly to DISL:**
Upon arrival at DISL, students are responsible for any unpaid DISL lab fees, activity fees, and room and board fees. Students will also be required to furnish proof of tuition paid and schedule of courses registered for at their home campus before they will be permitted to attend class(es).

Proof of tuition paid and schedule of courses registered for at your home university should be presented to the Registrar at DISL prior to registration. The schedule of courses registered for and a receipt for tuition paid from the student’s home institution is acceptable.

**DISL Fees:**
- Lab Fee: $20.00 per credit (except Auburn University students)
- Student ID Fee: $10.00 per summer
- Student Activity Fee: $10.00 per summer (does not apply to students attending May Term only)
- Student Parking Fee: $15.00 per summer if car is parked on campus
- Student Registration Fee: $35.00 per summer
- Facilities Fee: $100.00 per summer

Once a student begins class, no refunds for lab or student fees will be issued. Prorated room and board will be issued for students withdrawal where applicable.

Special fees for related travel are non-refundable unless course is cancelled. DISL fees may be paid on a session-by-session basis if arranged beforehand with the DISL Bursar.

**DISL Room and Board:**
*$140/week double occupancy; $190/week private, if available*

Dormitory rooms are available based on two-person occupancy per room. All rooms are air-conditioned and have wireless Internet connections. Students must supply their own bed linens. No pets, cooking equipment, refrigerators, coffee makers, etc., are allowed. (For info regarding Service and ESA animals, please contact the DISL UP Registrar.) If space is available, private rooms will be issued on a first-come basis. Please specify if you would be interested in a private room. Private rooms will be issued on a per session basis and cannot be guaranteed for all terms.

Students may check into the Challenger dorms after 12:00 noon the day before (Sunday) class begins on Monday.

After the course ends on Friday, students will be expected to check out of the dorms on **Saturday before 9:00 a.m.** If a student is flying into Mobile Regional airport and requires transportation to DISL, we recommend you arrive on the Saturday before the term begins and depart on the Saturday morning after term ends.

Register online
www.disl.org/univ-prog/undergrad
**Fees, Tuition, Room and Board Costs**

All dormitory residents are required to purchase meal plans.

*(Preparation of food in the dormitories is absolutely prohibited)*

**Meal plan:**
7-day plan $185.50/week
5-day plan $132.50/week (Sunday dinner through Friday lunch)

All efforts will be made to meet special dietary needs, upon notification during registration to the Registrar and/or to the cafeteria manager (251) 861-2141, ext. 7538.

**TOTAL COSTS FOR DOUBLE OCCUPANCY ROOM AND BOARD ARE:**

<table>
<thead>
<tr>
<th>Number of Weeks</th>
<th>dorm + 5-day meal</th>
<th>dorm + 7-day meal</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 - weeks (e.g., May Term)</td>
<td>$545.00</td>
<td>$651.00</td>
</tr>
<tr>
<td>5 - weeks (e.g., First Session)</td>
<td>$1,362.50</td>
<td>$1,627.50</td>
</tr>
<tr>
<td>7 - weeks (e.g. May &amp; First Session)</td>
<td>$1,907.50</td>
<td>$2,278.50</td>
</tr>
<tr>
<td>10 - weeks (e.g., First &amp; Second Sessions)</td>
<td>$2,725.00</td>
<td>$3,255.00</td>
</tr>
<tr>
<td>12 - weeks (e.g. May, First &amp; Second Sessions)</td>
<td>$3,270.00</td>
<td>$3,906.00</td>
</tr>
</tbody>
</table>

**Books** can be purchased at the DISL Estuarium upon arrival. Call (251)861-2141, ext.7545 with questions.

**Payment to DISL in Advance:** To avoid registration lines, payment may be made online via your student Populi account www.disl.populiweb.com, or mailed at least TWO WEEKS prior to your arrival. MasterCard, Visa, Discover and American Express are accepted over the phone. No cash accepted. Make check or money order payable to DISL and mail to **Ms. Daphne Wood, Bursar, 101 Bienville Blvd., Dauphin Island, AL 36528.** Call (251) 861-2141, ext. 7512 with questions to Ms. Wood. DISL fees may be paid on a session basis if arranged beforehand with the DISL Bursar.

**Payment Deferrals:** Payment deferrals will be made only upon receipt at DISL of written verification of loan, grant, fellowship, assistantship, VA or other forms of support. The verification must be from an authorized agent of the awarding entity and must indicate the amount awarded, anticipated date(s) of receipt and schedule of payments if not a single lump sum. It should be indicated to whom payment will be made, i.e., academic institution for tuition only or without limitation, to the student directly, etc. Students receiving deferrals must sign a promissory note to DISL in the amount of the deferral. There will be no deferrals on meal plans. All deferred charges must be paid by the end of the term in order to enroll in a subsequent term and for grades to be transmitted to the appropriate campus.
Course Registration

Submission deadline for priority registration: February 14, 2020

DISL will accept registrations until the first day of class; however, courses will fill early and students should try to send their registrations before the priority registration date.

**Step #1 Complete the DISL Summer Online Registration Form:**

**ONLINE:**
- Visit [https://www.disl.org/univ-prog/undergrad](https://www.disl.org/univ-prog/undergrad) for instructions for logging into our student portal. www.disl.populiweb.com
- Once your student account is created on disl.populiweb.com, upload/submit a digital image, photo or scan of your signed advisor’s sheet (last page of this bulletin).
- Complete online registration with course choices.
- You will be billed the $75.00 pre-registration fee via your online student account disl.populiweb.com.

**Step #2 Confirmation of DISL Enrollment**
- DISL will email a confirmation of your course enrollment at DISL after the priority registration deadline of February 15, 2020. This email will include instructions to login to your DISL Student account via disl.populiweb.com, and a link to additional documents.
- Once you login to your student account on DISL.Populiweb.com, you will be able to view a listing of your courses and the status of your enrollment (registered or wait)
- Your DISL bill is payable online (amount due upon arrival at DISL for fees, room and board). DISL fees may be paid on a session-by-session basis if arranged beforehand with the DISL Bursar, Daphne Wood (dwood@disl.edu).

**Step #3 Enrollment at Your Home Campus**
- You MUST also register at your home campus and pay your home campus tuition (not applicable for Birmingham Southern Students).
- You must submit proof of home campus tuition paid and a schedule of courses registered for at your home campus to the UP Registrar. This can be done via email, online via disl.populiweb.com, or in person during on-campus orientation.

**NOTE:** In cases where your home institution does not permit you to register for classes before DISL classes begin and you fail to register when campus registration begins, you will be obligated to pay DISL directly for the cost of registration and tuition.
**Course Registration**

**Step #4 On-Campus Registration & Orientation at DISL**

In order for you to attend any course at DISL, you must attend an on-campus registration and orientation event at DISL before your session begins. At registration and orientation you will:

Pay DISL charges (e.g., fees, room, board) if you did not pay them online via your Disl.populiweb.com account.

Provide the UP Registrar with a receipt of tuition paid at your home institution and a schedule of courses registered for at your home institution if you did not upload them online via your Disl.populiweb.com account (you must register at your home campus to receive this proof of tuition paid and schedule of courses registered for).

Turn in all required forms/waivers, if you did not complete and upload these online via your Disl.populiweb.com account. All waivers can be notarized at DISL Registration. All forms/waivers may be downloaded from our website: [https://www.disl.org/univ-prog/undergrad](https://www.disl.org/univ-prog/undergrad)

**Frequently Asked Questions**

**Do I have to enroll at both my home school and at the DISL for my summer course?**
Yes, in order to receive academic credit for your courses you MUST register for your class at your home institution and at the DISL. Be sure to get your academic advisor’s approval for your course selections.

**Will I receive two billing statements for my summer courses at DISL?**
Yes, your home institution will invoice your tuition. The DISL will invoice academic and facility fees as well as your room and board if you decide to live on the DISL campus.

**Can out-of-state students enroll in DISL Summer UP courses?**
Yes, however, your home school will need to enter an agreement with the DISL for academic credits to transfer. Please contact the UP Registrar Regina Kollegger for more info.

**Do I have to be enrolled in a college to take DISL Summer UP courses?**
No, you do not need to be enrolled in college to take our courses. You may audit our courses for a fee, but will not receive academic credit for your enrollment.

**Do you offer financial aid?**
DISL does not offer a financial aid program. You will need to coordinate your financial aid through your home institution. The DISL does offer student work-study and scholarship opportunities, please see page 27 for more information.

**Are there housing options on Dauphin Island other than DISL campus living?**
Sometimes there are houses available for rent on Dauphin Island, however, you will need to search and coordinate these options on your own.
### Tentative Registration and Orientation Schedule

<table>
<thead>
<tr>
<th></th>
<th>May Session May 11– 22</th>
<th>First Session May 25 - June 26</th>
<th>Second Session June 29- July 31</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Check-in:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Challenger Dorm</td>
<td>Sunday, May 10 after 12:00 noon</td>
<td>Sunday, May 24 after 12:00 noon</td>
<td>Sunday, June 28 after 12:00 noon</td>
</tr>
<tr>
<td><strong>Registration:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administration Building</td>
<td>Sunday, May 10 2:30P - 5:00P</td>
<td>Sunday, May 24 2:30P – 5:00P</td>
<td>Sunday, June 28 2:30P - 5:00P</td>
</tr>
<tr>
<td></td>
<td>Commuters Monday, May 11 7:30A</td>
<td>Commuters Monday, May 25 7:30A</td>
<td>Commuters Monday, June 29 7:30A</td>
</tr>
<tr>
<td><strong>Orientation:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shelby Auditorium</td>
<td>Monday, May 11 8:30A</td>
<td>Monday, May 25 8:30A</td>
<td>Monday, June 29 8:30A</td>
</tr>
<tr>
<td>Students attending multiple sessions are only required to attend one orientation session</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Classes Begin</strong></td>
<td>Immediately After Orientation</td>
<td>Immediately After Orientation</td>
<td>Immediately After Orientation</td>
</tr>
</tbody>
</table>

**Introduction to Neurobiology will have a separate schedule for Orientation.**

**Hurricane Procedure:** In the event evacuation becomes necessary due to a hurricane, information regarding closing of DISL and alternative housing for students living in the dorms will be available through University Programs. Students may leave evacuation destination information with the University Programs Registrar. Once the emergency situation has concluded and electrical power is established, information regarding the reopening of DISL and all other necessary information will be recorded on the switchboard answering machine (251) 861-2141. If power is not immediately restored to DISL, information will be sent to local radio and television stations. The DISL website www.disl.org will also be updated with current information.

**DISL hurricane toll free phone number:** (800) 652-9660.

Register online
www.disl.org/univ-prog/undergrad
Dauphin Island Sea Lab  Marine Science Summer 2020

MESC Institutions and DISL Campus Liaison Officers

*Alabama A & M University
Dr. Malinda Wilson Gilmore
Dept. of Chemistry, Physics, and Math
4900 Meridan Street/PO Box 322
Normal, AL 35762
Ph: (256) 372-4803/Fax: (256)372-8288
Malinda.gilmore@aamu.edu

*Alabama State University
Dr. B.K. Robertson
Dept. of Biological Sciences
915 S. Jackson Street
Montgomery, AL 36104
Ph: (334) 229-4423/Fax: (334)229-1007
broberson@alasu.edu

Athens State University
Dr. Sara Cline
Dept. of Mathematical, Computer, & Natural Sciences
S303A Waters Hall, 300 N. Beaty Street
Athens, AL 35611
Ph: (256) 233-6507
sara.cline@athens.edu

*Auburn University
Dr. Anthony G. Moss
Dept. of Biological Sciences
331 Funchess Hall
Auburn, AL 36849
Ph: (334) 844-9257/Fax: (334) 844-9234
mossant@auburn.edu

Auburn University at Montgomery
Dr. John Aho
Dept. of Biology/PO Box 244023
Montgomery, AL 36124
Ph: (334) 244-3787/Fax: (334)244-3826
jaho@aum.edu

Birmingham Southern College
Dr. Andrew Gannon
Dept. of Biology
PO Box 549022
Birmingham, AL 35254
Ph: (205) 226-4899/Fax: (205)226-3078
agannon@bsc.edu

Huntingdon College
Dr. Paul Gier
Dept. of Biology
1500 E. Fairview Ave.
Montgomery, AL 36106
Ph: (334) 833-4510/Fax: (334)833-4486
pgier@huntingdon.edu

Jacksonville State University
Dr. George Cline
Dept. of Biology
700 Pelham Rd., N.
Jacksonville, AL 36265-1602
Ph: (256) 782-5798/Fax: (256)782-5587
gcline@jsu.edu

Judson College
Dr. Mary Anne Garner
Dept. of Chemistry
302 Bibb Street
Marion, AL 36756
Ph: (334) 683-5179/Fax: (334)683-5282
mgarner@judson.edu

Samford University
Dr. Anthony S. Overton
Dept. of Biological & Environmental Sciences
Howard College of Arts and Sciences
800 Lakeshore Drive
Birmingham, AL 35229
Ph: (205)726-2944/Fax: (205)726-2479
aoverton@samford.edu

Spring Hill College
Dr. Charles Chester
Dept. of Biology
Mobile, AL 36608
Ph: (251) 380-3071/Fax: (251)460-2198
cchester@shc.edu

Register online
www.disl.org/univ-prog/undergrad
MESC Institutions and DISL Campus Liaison Officers

**Stillman College**  
**Dr. Josiah J. Sampson, III**  
School of Arts & Sciences  
3601 Stillman Blvd  
Tuscaloosa, AL 35401  
Ph: (205) 366-8929  
jsampson@stillman.edu

**Talladega College**  
**Dr. Andrew Coleman**  
Silsby Science Hall Rm B2  
627 West Battle Street  
Talladega, AL 35160  
Ph: (256) 761-6307/Fax: (256)761-6437  
a Coleman@talladega.edu

**Troy**  
**Dr. Stephen Landers**  
Dept. of Biological & Env. Sciences  
Troy, AL 36082  
Ph: (334) 670-3661/Fax: (334)670-3662  
slanders@troy.edu

**Tuskegee University**  
**Dr. Richard Whittington**  
Dept. of Biology  
Tuskegee, AL 36088  
(334) 724-4218/Fax: (334)724-3919  
hwittingtonr@mvtu.tuskegee.edu

**University of Alabama at Huntsville**  
**Dr. Bruce Stallsmith**  
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Huntsville, AL 35899  
Ph: (256) 824-6992/Fax: (256)824-6305  
stallsb@uah.edu

**University of Mobile**  
**Dr. Lesley Baggett**  
Dept. of Natural Sciences  
5735 College Parkway  
Mobile, AL 36613  
Ph: (251) 442-2408/Fax: (251)442-2523  
l baggett@umobile.edu

**University of Montevallo**  
**Dr. Jill Wicknick**  
Dept. of Biology, Station 6480  
Montevallo, AL 35115  
Ph: (205) 665-6458/Fax: (205)665-6477  
wicknickja@montevallo.edu

**University of North Alabama**  
**Dr. Emily Kasl**  
Dept. of Biology, PO Box 5048  
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Ph: (256) 765-4703/Fax: (256)443-9165  
ekasl@una.edu

**University of South Alabama**  
**Dr. Amy Sprinkle**  
Dept. of Biology  
Mobile, AL 36688  
Ph: (251) 460-7525/Fax: (251)414-8220  
sprinkle@southalabama.edu

**University of West Alabama**  
**Dr. Lee Stanton**  
Dept. of Biology Livingston, AL 35470  
Ph: (205) 652-3415/Fax: (205)652-3831  
I Stanton@uwa.edu

**Schools with Graduate Programs**

Register online
www.disl.org/univ-prog/undergrad
Scholarship and Work Study Opportunities

The Dauphin Island Sea Lab offers scholarships and work study positions for summer school students to defer educational related costs.

Scholarships
The Rita George and George Crozier Scholarships provide 12 weeks of room and board for students enrolled in DISL summer courses.

DISL Foundation Scholarships waive academic fees for summer school.

The Mike deGruy Coral Reef Scholarship will cover course fees for students enrolled in Coral Reef Biology & Ecology.

To apply visit www.disl.org/univ-prog/undergrad and select “Scholarship”. Students may apply for all scholarships simultaneously using a common application.

A complete scholarship application must be completed online and will include:
- A submission form outlining honors, awards, and extracurricular activities
- Transcripts from all colleges or universities attended (unofficial transcripts accepted)
- Three letters of recommendation from individuals that can evaluate academic potential
- A one-page essay of career goals with regards to marine science

Work Study
Students are needed to work as dorm monitors and library aides. Both graduate and undergraduate students are eligible to apply. For job descriptions, requirements for employment, and applications visit www.disl.org/univ-prog/undergrad and select “Work Study”.

Dorm Monitors
Dorm monitors receive $125 per week plus a private dormitory room and a meal plan. Dorm monitors serve at the direction of the UP Registrar and UP Chair. The major responsibilities of the Dorm Monitor/RA include: assigning dorm rooms, promoting community; developing relationships; helping to establish and maintain a healthy residential environment conducive to academic and personal growth; assisting with disciplinary procedure as necessary; implementing University and Housing policies; and assisting with individual student needs, transporting students to the airport, events and other duties as assigned.

Library Aides
Library aides are compensated $8.00 per hr and work 10 hours per week to staff the library and computer lab after hours. They perform clerical tasks as needed and assist students with computer use.

A complete workstudy application must be completed online and will include:
- A submission form
- Transcripts (unofficial accepted)
- Three letters of recommendation, excluding relatives

Recommendation letters and other application materials can be used for all scholarship and work study applications, students do not need to send separate recommendation letters or complete multiple applications.
## Course Combinations

<table>
<thead>
<tr>
<th>Compatible</th>
<th>Incompatible</th>
</tr>
</thead>
<tbody>
<tr>
<td>A2 and A4</td>
<td>A2 and B2</td>
</tr>
<tr>
<td>A4 and B4</td>
<td>B2 and B4</td>
</tr>
<tr>
<td>C2 and C4</td>
<td>C2 and D2</td>
</tr>
<tr>
<td>C4 and D4</td>
<td>D2 and D4</td>
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</table>

## 2nd Session: June 29-July 31 - 5 weeks

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
<th>1st Choice</th>
<th>2nd Choice</th>
</tr>
</thead>
<tbody>
<tr>
<td>C4 Courses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intro to Oceanography</td>
<td>(4)UG/G</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marine Biology</td>
<td>(4)UG/G</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marine Consv. Biology</td>
<td>(4)UG/G</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marine Invert. Zoology</td>
<td>(4)UG/G</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C2 Courses</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Marine Mammal Health</td>
<td>(2)UG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biotic Response to Sea Level Change</td>
<td>(2)UG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D4 Courses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marine Biology</td>
<td>(4)UG/G</td>
<td></td>
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<tr>
<td>Marine Ecology</td>
<td>(4)UG/G</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marine Geology</td>
<td>(4)UG/G</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marine Vertebrate Zoology</td>
<td>(4)UG/G</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D2 Courses</td>
<td></td>
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<tr>
<td>Shark and Ray Biology</td>
<td>(2)UG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marine Aquaculture</td>
<td>(2)UG</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Schedule EX Special Courses

- Intro. to Neurobiology (3)UG/G

It is important to list both first and second choices for courses whenever possible. If applying online, this advisor sheet must be signed and uploaded to your web application. All courses are subject to change.

## Total # credits (all terms)

<table>
<thead>
<tr>
<th>Priority Level</th>
<th>I</th>
<th>II</th>
<th>III</th>
</tr>
</thead>
</table>

Date:

Advisor’s Signature

Student’s Signature
Dauphin Island Sea Lab
Facilities Map

1. Administrative Offices, Registration, Classroom and Study Hall
2. Maintenance/Vehicle-Boat Yard
3. Albatross Hall (Apartments)
4. Laundromat
5. DHP Computer Lab/Classroom 5
6. Endeavor Hall (Class Rooms)
7. Basketball, Volleyball Courts
8. Discovery Hall (Class Rooms/Offices)
9. Horizon Hall (Class Rooms/Offices)
10. Galathea Hall (Class Rooms/Meeting Room)
11. Sea Pines
12. Swimming Pool
13. Mesocosm Facility
14. House 10
15. Cafeteria
16. Challenger Hall (Dormitory)
17. Beagle Hall (Dormitory)
18.1-9. Faculty Housing
19. Storage Building
20. Wiese Marine Science Hall
21. Husbandry Building
22. The Estuarium and Sea Lab Giftshop
23. Living Marsh and Boardwalk
24. Ladner Pavilion
25. A. U. Shellfish Research
26. Wet Lab
27. Shelby Fisheries Center
28. Marine Mammal Research Center

A. To the Water Tower and Audubon Sanctuary
B. To Fort Gaines
C. To Gulf Of Mexico Beach
D. To DISL Research Vessels

- OPEN TO THE PUBLIC

Severe Weather Shelter
Automated External Defibrillators

11/2019 RD
From Delta to the Ocean Deep
Dauphin Island, AL
www.DISL.org

Small Class Size
One-on-one instructor interaction
Fieldwork