Research Experience for Undergraduates
Marine Science Fellowships
May 27-August 2, 2019
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

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

Application deadline
February 15, 2019

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

Apply Today: www.disl.org/univ-prog/nsf-reu
Dauphin Island Sea Lab  Marine Science Summer 2019

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Apply and register online

www.disl.org/univ-prog/undergrad/apply
DISL Campus Contact Information

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<thead>
<tr>
<th>Contact</th>
<th>Phone Ext.</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Director, Dr. John Valentine</td>
<td>7505</td>
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<td><a href="mailto:rkollegger@disl.org">rkollegger@disl.org</a></td>
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</tr>
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<td>Discovery Hall Programs Registrar, Ms. Sara Johnson</td>
<td>7515</td>
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<td>7509</td>
<td><a href="mailto:alevins@disl.org">alevins@disl.org</a></td>
</tr>
</tbody>
</table>

To contact any of the above members of the Dauphin Island Sea Lab or other listed faculty, please write, email, or call:
Dauphin Island Sea Lab
101 Bienville Blvd.
Dauphin Island, AL 36528

Phone: (251) 861-2141
Fax: (251) 861-7540 or (251) 861-4646
Information about DISL may also be obtained on our website at: www.disl.org.

MESC/Dauphin Island Sea Lab provides equal educational opportunities and is open and accessible to all qualified students, without regard to race, color, creed, national origin, gender or qualified handicap/disability. Disabled students will be provided reasonable accommodations when they have identified themselves and validated their special need(s) in detail on the Application for Admission. Complete confidentiality is maintained unless authorization for release of information has been given.

Apply and register online
www.disl.org/univ-prog/undergrad/apply
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 Center, in the Administration building, is equipped with PCs for student use. A variety of Windows programs are available for word-processing, database management, statistical analysis, communications and graphic presentations.

Network and wireless Internet access is also available.

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.)

Buoy, 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 (4) professional development workshops: Fins, Fishes & Fisheries (June 9-13); FACTs: Fish, Algae & Chemistry for Teachers (June 23-27); Time Traveling through Coastal History Using Seashells: A STEAM Approach (July 16-19); and Technology in Marine Science: Underwater Robotics (July 28-August 1). 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 16 - July 12). 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 (July 14-19).

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: June 2-7, June 16-21, July 7-12, July 21-26). Students with more of an interest in robotics and STEM can attend Marine DeTECHtives, a 2-night camp teaching beginner-level coding, circuitry and the use of these in marine research (July 14-16). Younger campers (rising 5th-6th grade) can participate in the 3-night residential camp, Barrier Island Explorer (3 sessions: June 2-5, June 9-12, July 21-24).

DHP also offers day camps for students, including Oceans Alive (June 21, July 19, July 26); BIO Blitz (June 14, July 26, July 31); and Survivor-Dauphin Island (June 7, June 14, July 5, July 30).

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

Courses subject to change depending on enrollment.
University Programs

University courses are taught year round by resident DISL faculty as well as visiting faculty from member institutions and elsewhere (see listing on page 15). 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 13-May 24) will take place over a period of two weeks during which 2-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, Monday through Friday.

In addition to the May session, there are two sessions of five-week courses: the First Session (May 27 – June 28), and the Second Session (July 1 – August 2). 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 16 - Aug 3) does not permit students to take other courses concurrently during Second session.

Whether taking one or two courses, students may be required to 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 require snorkeling and/or other water activities as well. Enrolling in all three sessions is not prohibited; however, students are cautioned about the intensity of taking the maximum number of hours for all three sessions.

Admissions & 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 apply, 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 students have received written approval from their campus liaison officer, they may submit their application showing first and second choice classes, and application fee to the DISL UP Registrar. Applications will not be accepted without the signature of your campus liaison officer. Please see page 20 for detailed registration procedures.

Because of limited class size (generally capped at 20), classes often fill early. It is important that applications arrive at DISL by February 15, 2019, for priority registration, to insure you get your first choice courses.

Apply and register online
www.disl.org/univ-prog/undergrad/apply
### Summer University Programs Course Schedule 2019

#### May Session - May 13-May 24 - 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>Credits</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>##Biology &amp; Conservation of Marine Turtles</strong></td>
<td>(2)UG/G</td>
<td>Wibbels</td>
</tr>
<tr>
<td><strong>Dolphins and Whales</strong></td>
<td>(2)UG</td>
<td>Lewis</td>
</tr>
<tr>
<td><strong>##Ecology of the Florida Everglades</strong></td>
<td>(2)UG/G</td>
<td>Stanton</td>
</tr>
<tr>
<td><strong>##Shark and Ray Biology</strong></td>
<td>(2)UG</td>
<td>Drymon</td>
</tr>
<tr>
<td><strong>##Shellfish Aquaculture of the GOM</strong></td>
<td>(2)UG/G</td>
<td>Walton</td>
</tr>
<tr>
<td><strong>##Exploring the Chemical Ecology of Tropical Marine Systems</strong></td>
<td>(4)UG/G</td>
<td>Robertson/Miller</td>
</tr>
</tbody>
</table>

**Only one course per session**

**Additional fees apply (fees nonrefundable unless course is cancelled)**

All courses are subject to change. Listed schedule times are approximate and are left to the discretion of the instructor. All courses must be approved by your advisor. For sessions 1 & 2 you may enroll in (1) 6hr, (1)4-hr & (1)2-hr course; or (2) 2-hr courses. (2) 4hr courses may be taken at the discretion of your advisor.

### 1st Session May 27-June 28 - 5 weeks

**A Courses**

**Schedule A4- 4-hour courses:**
- Lecture: M/T/W (9A - 12P); Lab: M/T (1P – 4P)
  - Coastal Wetlands Ecology: (4)UG/G
  - Marine Botany: (4)UG/G
  - Marine Biology: (4)UG
  - Marine Mammals: (4)UG/G

**Schedule A2- 2-hour courses:**
- Lecture: TH/F (9A – 11:30A); Lab: TH (1 P–4P)
  - Coastal Birds: (2)UG/G
  - Hurricanes of the Gulf Coast: (2)UG/G

**Schedule B4: 4-hour courses:**
- Lecture: W (1P –4P), TH/F (9A– 12P); Lab: TH/F (1P – 4P)
  - Intro to Oceanography: (4)UG/G
  - Marine Ecology: (4)UG/G
  - Marine Geology: (4)UG/G
  - Marine Vertebrate Zoology: (4)UG/G

**Schedule B2: 2-hour courses:**
- Lecture: M/T (9A – 11:30A); Lab: M (1P – 4P)
  - Marine Restoration Ecology: (2)UG/G

**Schedule: Special Course EX**
- 7/15-8/2/19-Lecture: M-S 9A-12P
  - Lab: M-S 1P-5P; M-Th 6:30P-7:30P
  - Intro. To Neurobiology: (3)Adv. UG/G Strang et al.

### 2nd Session July 1-Aug 2 - 5 weeks

**C Courses**

**Schedule C6: 6-hour course:**
- Lecture: M-F (9A – 4P)
  - Marine Ichthyology: (6) UG/G Bullard

**Schedule C4: 4-hour courses:**
- Lecture: M/T/W (9A - 12P); Lab: M/T (1P –4P)
  - Marine Biology: (4)UG
  - Marine Behavioral Ecology: (4)UG
  - Marine Conservation Biology: (4)UG/G
  - Marine Invertebrate Zoology: (4)UG/G

**Schedule C2- 2-hour courses:**
- Lecture: TH/F (9A – 11:30A); Lab: TH (1P –4P)
  - Marine Aquaculture: (2)UG/G
  - Plankton Biology: (2)UG

**D Courses**

**Schedule D4: 4-hour courses:**
- Lecture: W(1 –4P), TH/F(9A– 12P); Lab:TH/F (1P– 4P)
  - Intro to Oceanography: (4)UG/G
  - Marine Vertebrate Zoology: (4)UG/G

**Schedule D2: 2-hour courses:**
- Lecture: M/T (9A-11:30A); Lab M (1P-4P)
  - Marine Mammal Health: (2)UG/G
  - Shark and Ray Biology: (2)UG/G

**Schedule D2A: 2-hour courses:**
- Lecture: W (1-3:30P), Th (9A-11:30A) Lab TH (1-4P)
  - Biotic Response to Sea Level Change: (2)UG/G

**Schedule: Special Course FX**
- 7/3-8/9/18---Lecture: W-F 9A-5P; 8/5-8/9-M-F
  - Scientific Diving: (4)UG/G Lockridge
## Course Descriptions

### Directed Studies

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credit Hours</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directed Studies</td>
<td>1-6 credit hours</td>
<td>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.</td>
</tr>
</tbody>
</table>

### May Term - May 13 - 24

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credit Hours</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology and Conservation of Marine Turtles</td>
<td>2cr UG/G</td>
<td>Dr. Wibbels</td>
</tr>
</tbody>
</table>

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 08, 2019, with the remaining portion due on April 29, 2019. The fee is nonrefundable unless the class is canceled. Prerequisites - introductory course in biology.*

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credit Hours</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dolphins and Whales</td>
<td>2cr UG</td>
<td>Dr. Lewis</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>May Term - May 13 - 24</th>
<th>may enroll in one course only this session</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecology of the Everglades (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 day-long 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, 2019, with the remaining portion due on April 29, 2019. The fee is nonrefundable unless the class is canceled. Email questions to lstanton@uwa.edu.

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

<table>
<thead>
<tr>
<th>Shark and Ray Biology (2cr UG/G)</th>
<th>Dr. Drymon</th>
</tr>
</thead>
</table>

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).

<table>
<thead>
<tr>
<th>Shellfish Aquaculture of the Gulf of Mexico (2cr UG/G)</th>
<th>Dr. Walton</th>
</tr>
</thead>
</table>

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, 2019 with the remaining portion due on April 29, 2019. Fee is nonrefundable unless the class is canceled. **Prerequisites** - One year of college-level biology or permission of instructor.

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

**Special May Term - May 6-30**

<table>
<thead>
<tr>
<th>Course</th>
<th>Prerequisites</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exploring the Chemical Ecology of Tropical Marine Systems (4cr UG/G)</td>
<td>Drs. Robertson et al</td>
<td>Students will learn about the ecology of tropical marine ecosystems through immersion in a coral reef system and their surrounding habitats located in the Abaco Islands, Bahamas. The focus of the class will be to expose students to the importance of these systems, both economically and ecologically, and discuss topics related to marine benthic community dynamics, energy transfer through trophic levels, marine chemistry and toxin production in these environments. In addition, discussion of the problems these systems face along with marine ecosystem conservation will occur. Formal lectures will be accompanied by lab activities in the field designed to fully immerse students into the topics discussed in lecture. Furthermore, students will work together to develop a research question focused on tropical marine chemical ecology and then design an experimental approach and execute research to finally develop a research paper at the end of the course. Prerequisites: permission from instructor, Application required</td>
</tr>
</tbody>
</table>

This class will require additional costs. The estimate of costs is $2500 per student. However, scholarships are available to assist with the added costs. Total scholarship amount awarded per student will be dependent on number of students that apply and enroll (up to $2500 per student). The scholarship will cover: transportation to/from Bahamas, housing and meals in the Bahamas, research supplies while in Bahamas. All students participating in this course will be expected to pay their own tuition. In order to apply for the course (and thereby, the scholarship) an application must be completed. The application will be available on www.disl.org. Application Due: January 31, 2019

**1st Session - A4 Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Prerequisites</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coastal Wetlands Ecology (4cr UG/G)</td>
<td>Dr. Stanton</td>
<td>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.</td>
</tr>
<tr>
<td>Marine Botany (4cr UG/G)</td>
<td>Dr. Lehman</td>
<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. Extensive overnight field and laboratory work is involved, including the ability to wade and snorkel. Participation in overnight field trips is a part of this course. Snorkeling gear is required. Prerequisites - general biology.</td>
</tr>
</tbody>
</table>

Apply and register online
www.disl.org/univ-prog/undergrad/apply
**Course Descriptions**

<table>
<thead>
<tr>
<th>1st Session - A4 Courses</th>
<th>May 27 - June 28</th>
<th>may enroll in (1)4-hr &amp; (1)2-hr course; or (2)2-hr courses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Marine Biology</strong> (4cr UG)</td>
<td>Dr. Sprinkle</td>
<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. Participation in overnight field trips is a part of this course. Snorkeling gear is required. <strong>Prerequisites</strong> - general biology.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1st Session - A2 Courses</th>
<th>May 27 - June 28</th>
<th>may enroll in (1)4-hr &amp; (1)2-hr course; or (2)2-hr courses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hurricanes of the Gulf Coast</strong> (2cr UG/G)</td>
<td>Dr. Blackwell</td>
<td>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. <strong>Prerequisites</strong> - none.</td>
</tr>
</tbody>
</table>

| **Coastal Birds of Alabama** (2cr UG) | Dr. Woodrey | 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 msw103@ra.msstate.edu. **Prerequisites** - undergraduate biology or zoology. |

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

1st Session - B6 Course  
May 27 - June 28

Marine Ichthyology (6cr UG/G)  
Dr. Bullard

An experiential-learning, field-based course (students will work in the field and process samples in the laboratory every day) that challenges students to collect, organize, and taxonomically identify marine and estuarine fishes of the Gulf of Mexico. The main objective of the course is to sample the largest diversity of fishes from the Gulf’s diverse habitat types (open beach, grassbeds, marsh, offshore reefs/oil rigs, tidal creeks, and rivers) by using a wide diversity of gear types (seine, trawl, rod-and-reel, cast net, spear, dip net, traps). Self-directed and team-dependent field and laboratory activities occur after 5:00 PM*. Successful students emerge from this course with the ability to A) use a variety of gear types for collecting specific fishes, B) taxonomically identify and classify fishes in a modern phylogenetic context, C) predict the taxonomic composition of fish communities associated with particular habitat types in the Gulf of Mexico, and D) understand basic fish anatomy and physiology. The course provides relevant training for state/federal fisheries biologists, marine educators, and students focused on fish biology, marine conservation biology, and evolutionary biology. ###An approximate $75.00 will be applied. Prerequisites—Undergraduates: One semester introductory science. Graduate students: BSc degree in natural sciences.

*Students who take this course are strongly encouraged to live in the dormitories at DISL; the course is a 6 credit hour, 5-day per week course. No other courses can be taken simultaneous to this course.

1st Session - B4 Courses  
May 27 - June 28

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 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 is required. Prerequisites - general biology.
Course Descriptions

**1st Session - B4 Courses**
May 27 - June 28

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hrs</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine Geology (4cr UG/G)</td>
<td>Dr. Elliot</td>
<td></td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hrs</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine Vertebrate Zoology (4cr UG/G)</td>
<td>Dr. Albins</td>
<td></td>
</tr>
</tbody>
</table>

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.

**1st Session - B2 Courses**
May 27 - June 28

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hrs</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine Restoration Ecology (2cr UG/G)</td>
<td>Dr. Baggett</td>
<td></td>
</tr>
</tbody>
</table>

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. **Prerequisite:** One year of undergraduate introductory science (preferably including an ecology course) or consent of the instructor.
Course Descriptions

<table>
<thead>
<tr>
<th>2nd Session - C6 Courses</th>
<th>may enroll in (1) 6hr only; (1)4-hr &amp; (1)2-hr course; or (2)2-hr courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine Ichthyology (6cr UG/G)</td>
<td>Dr. Bullard</td>
</tr>
<tr>
<td>An experiential-learning, field-based course (students will work in the field and process samples in the laboratory every day) that challenges students to collect, organize, and taxonomically identify marine and estuarine fishes of the Gulf of Mexico. The main objective of the course is to sample the largest diversity of fishes from the Gulf's diverse habitat types (open beach, grassbeds, marsh, offshore reefs/oil rigs, tidal creeks, and rivers) by using a wide diversity of gear types (seine, trawl, rod-and-reel, cast net, spear, dip net, traps). Self-directed and team-dependent field and laboratory activities occur after 5:00 PM*. Successful students emerge from this course with the ability to A) use a variety of gear types for collecting specific fishes, B) taxonomically identify and classify fishes in a modern phylogenetic context, C) predict the taxonomic composition of fish communities associated with particular habitat types in the Gulf of Mexico, and D) understand basic fish anatomy and physiology. The course provides relevant training for state/federal fisheries biologists, marine educators, and students focused on fish biology, marine conservation biology, and evolutionary biology. ##An approximate $75.00 will be applied. <strong>Prerequisites</strong>—Undergraduates: One semester introductory science. Graduate students: BSc degree in natural sciences. *Students who take this course are strongly encouraged to live in the dormitories at DISL; the course is a 6 credit hour, 5-day per week course. No other courses can be taken simultaneous to this course.</td>
<td></td>
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</tbody>
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<table>
<thead>
<tr>
<th>2nd Session - C4 Courses</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 Behavioral Ecology (4cr UG)</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 required. <strong>Prerequisites</strong> - introductory course that covers zoology (either vertebrate or invertebrate).</td>
<td></td>
</tr>
<tr>
<td>Marine Biology (4cr UG)</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. Participation in overnight field trips is a part of this course. Snorkeling gear is required. <strong>Prerequisites</strong> - general biology.</td>
<td></td>
</tr>
<tr>
<td>Marine Conservation Biology (4cr UG/G)</td>
<td>Dr. Baggett</td>
</tr>
<tr>
<td>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. <strong>Prerequisites</strong> - an introductory class in either marine or general ecology.</td>
<td></td>
</tr>
<tr>
<td>Marine Invertebrate Zoology (4cr UG/G)</td>
<td>Dr. Carmichael</td>
</tr>
<tr>
<td>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 is required. <strong>Prerequisites</strong> - introductory biology or zoology.</td>
<td></td>
</tr>
</tbody>
</table>
## Course Descriptions

### 2nd Session - C2 Courses

**July 2 - Aug. 3**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine Aquaculture</td>
<td>2cr UG/G</td>
<td>Dr. Stoeckel</td>
</tr>
</tbody>
</table>

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.

### Plankton Biology

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plankton Biology</td>
<td>2cr UG</td>
<td>Dr. Moss</td>
</tr>
</tbody>
</table>

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.

### 2nd Session - D4 Courses

**July 1 - Aug. 2**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intro to Oceanography</td>
<td>4cr UG/G</td>
<td>Dr. Krause</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine Vertebrate Zoology</td>
<td>4cr UG/G</td>
<td>Dr. Baker</td>
</tr>
</tbody>
</table>

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.

**Students may be required to arrive at 7:30am for field trips, work evenings and weekends to meet course requirements (working in the lab, on projects, or participating in field exercises and/or overnight field trips). Some courses may require snorkeling and other water activities.**
### 2nd Session - D2 A Courses

**July 1 - Aug. 2**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Dr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biotic Response to Sea Level Change (2cr UG/G)</td>
<td></td>
<td>Dr. Sprinkle</td>
</tr>
<tr>
<td>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.</td>
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</table>

### 2nd Session - D2 Courses

**July 1 - Aug. 2**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Dr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine Mammal Health (2cr UG/G)</td>
<td></td>
<td>Dr. Deming</td>
</tr>
<tr>
<td>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. If you do not think you can handle the necropsy portion of this course, you are encouraged not to register for this course. Due to potential risk of zoonotic disease, you cannot 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. <strong>Prerequisites</strong> - 3rd or 4th year undergraduate completion of Dolphins and Whales or Marine Mammals course; graduate student; or consent of the instructor.</td>
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</tbody>
</table>

| 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). |

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**Students may be required to arrive at 7:30am for field trips, work evenings and weekends to meet course requirements (working in the lab, on projects, or participating in field exercises and/or overnight field trips). Some courses may require snorkeling and other water activities.**
### 2nd Session - EX Special Courses

**July 15 - Aug. 2**

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

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.

### 2nd Session - FX Special Courses

**July 3 – Aug. 9**

<table>
<thead>
<tr>
<th>Course</th>
<th>Instructor</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scientific Diving</strong></td>
<td>Lockridge</td>
<td>4cr UG/G</td>
<td>This course, designed for a certified and experienced SCUBA diver who is planning to dive for an organization as a research diver, requires successful completion of a series of modules designed to fine tune diving skills within the classroom, pool and ocean. Specific tasks and skills include CPR, first aid, oxygen administration, dive planning, accident management, navigation, underwater surveys/mapping, instrument deployment and recovery, and zero visibility diving. Additional techniques may be taught depending on the interest and ability of the students. Interested divers should review the course prerequisites and contact the course instructor for permission to take the course and information on additional requirements.</td>
</tr>
</tbody>
</table>

**Students may be required to arrive at 7:30am for field trips, work evenings and weekends to meet course requirements (working in the lab, on projects, or participating in field exercises and/or overnight field trips). Some courses may require 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.org.

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.org.

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.

Bullard, Ash, Ph.D. (Gulf Coast Research Laboratory, 2007). Associate Professor of Fisheries, School of Fisheries, Aquaculture, and Aquatic Sciences, Auburn Univ. Taxonomy, systematics, and ecology of parasites of aquatic animals, aquatic animal health, ichthyology, invertebrate biology. ash.bullard@auburn.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.org.

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. jebose@disl.org

Deming, Alissa, DVM, PhD (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.org

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.org.

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/foodweb dynamics of upper trophic-level predators and ecosystem based fishery management. marcus.drymon@msstate.edu.
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.


*Heck, Kenneth Jr., Ph.D. (Fla. State Univ., 1976). Senior Marine Scientist III DISL, Professor, Dept. of Marine Sciences, Univ. of South AL. kheck@disl.org.

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.org.

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.

Lockridge, Grant R., M.S. (Coastal Carolina Univ., 2010). Diving Safety Officer/Lead Engineering Technician, DISL. Scientific and commercial diving, system integration, mooring design, instrumentation and sensor development, ocean engineering. glockridge@disl.org

Miller, Molly M., Ph.D. (Univ. of South AL, 2018). Research Coordinator, CiguaPIRE, Dauphin Island Sea Lab. Ecophysiology of estuarine and marine primary producers; understanding physiological responses of organisms to environmental change; molecular and biochemical mechanisms driving species interactions; role of toxins and toxin production in aquatic microalgae. mmmiller@disl.org

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.
Robertson, Alison, Ph.D. (James Cook University, 2005) Senior Marine Scientist I DISL, Assist. Professor, Dept. of Marine Sciences, Univ. of South AL. Marine chemical ecology, ecotoxicology, and ecological biochemistry. Focus on the ecological role, mechanisms, and biomarkers of exposure, food web dynamics, fate of natural toxins (e.g., harmful algae) in tropical reef ecosystems, and implications for coastal communities. arobertson@disl.org

*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.org

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. jimstoeckel@auburn.edu.

Strang, Christianne, Ph.D. (Univ. of Ala. at B’ham., 2004). Research Instructor, Dept. of Vision Sciences, Univ. of AL B’ham. Function of acetylcholine receptors in visual processing. 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.org.

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.

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:

<table>
<thead>
<tr>
<th>Fee Type</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lab Fee</td>
<td>$20.00 per credit (except Auburn University students)</td>
</tr>
<tr>
<td>Student ID Fee</td>
<td>$10.00 per summer</td>
</tr>
<tr>
<td>Student Activity Fee</td>
<td>$10.00 per summer (does not apply to students attending May Term only)</td>
</tr>
<tr>
<td>Student Parking Fee</td>
<td>$15.00 per summer if car is parked on campus</td>
</tr>
<tr>
<td>Student Registration Fee</td>
<td>$35.00 per summer</td>
</tr>
<tr>
<td>Facilities Fee</td>
<td>$100.00 per summer</td>
</tr>
</tbody>
</table>

Once a student begins class, no refunds for lab or student fees will be issued.

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 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.

Apply and register online
www.disl.org/univ-prog/undergrad/apply
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 requirements, upon notification on the application 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 Bursar, 101 Bienville Blvd., Dauphin Island, AL 36528. Call (251) 861-2141, ext. 7512 with questions. 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.

Apply and register online
www.disl.org/univ-prog/undergrad/apply
Course Registration

Application deadline for priority registration: February 15, 2019

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

**Step #1 Complete the DISL application in PRINT OR ONLINE:**

**PRINT**

- Complete the DISL application for admission in the back of this bulletin.
- Take the application advisement sheet (back of application) to your campus liaison officer (see page 31) for advising, approval and signature.
- Mail the signed application and advisement form and a $75 application fee* (credit cards, checks should be made out to DISL. **No cash accepted.**)

Dauphin Island Sea Lab  
Regina Kollegger, UP Registrar  
101 Bienville Blvd., Dauphin Island, AL 36528

NOTE: Applications will not be accepted without the signature of your campus liaison officer on the advisement form, and the $75 application fee. (*Application fee is non-refundable unless the course a student registered for is full or canceled, and another choice is not an option.)

**ONLINE:**

- Visit http://www.disl.org/univ-prog/undergrad/how-to-apply/ for instructions for logging onto our student application portal.– disl.populiweb.com
- Once your student account is created on disl.populiweb.com, upload/submit digital image, photo/scan of signed advisor’s sheet (back of application).
- Complete online application with course choices.

**Step #2 Confirmation of Enrollment**

- DISL will email a confirmation of your enrollment at DISL (after the priority registration deadline) which will include an acceptance statement, instructions to login to your DISL Student account via DISL.populiweb.com, and a link to required forms.

- Once you login to your student account on **DISL.Populiweb.com**, you will be able to view a listing of the course(s) that you have selected, the status of your enrollment at DISL in the course(s) (i.e. register, wait, drop), and, your DISL bill 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.org).**

**Apply and register online**

www.disl.org/univ-prog/undergrad/apply
Step #3 Enrollment at Your Home Campus

Once you have received notice from DISL that you are enrolled in classes at DISL:
- **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 registration.

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.

Step #4 On-Campus Registration and Orientation at DISL

In order for you to attend any course at DISL, you must attend an on-campus registration and orientation session at DISL before your session begins. At registration 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 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: [www.disl.org/univ-prog/undergrad/how-to-apply](http://www.disl.org/univ-prog/undergrad/how-to-apply)
Tentative Registration and Orientation Schedule

<table>
<thead>
<tr>
<th></th>
<th>May Session May 13– 24</th>
<th>First Session May 27 - June 28</th>
<th>Second Session July 1- Aug. 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check-in: Challenger Dorm</td>
<td>Sunday, May 12 after 12:00 noon</td>
<td>Sunday, May 26 after 12:00 noon</td>
<td>Sunday, June 30 after 12:00 noon</td>
</tr>
<tr>
<td>Registration: Administration Building</td>
<td>Sunday, May 12 2:30P - 5:00P</td>
<td>Sunday, May 26 2:30P - 5:00P</td>
<td>Sunday, June 30 2:30P - 5:00P</td>
</tr>
<tr>
<td></td>
<td>Commuters Monday, May 13 7:30A</td>
<td>Commuters Monday, May 27 7:30A</td>
<td>Commuters Monday, July 1 7:30A</td>
</tr>
<tr>
<td>Orientation: Shelby Auditorium</td>
<td>Monday, May 13 8:30A</td>
<td>Monday, May 27 8:30A</td>
<td>Monday, July 1 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>Classes Begin</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.
### MESC Institutions and DISL Campus Liaison Officers

<table>
<thead>
<tr>
<th>Institution</th>
<th>Contact Person</th>
<th>Phone Numbers</th>
<th>Email Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Alabama A &amp; M University</td>
<td>Dr. Malinda Wilson Gilmore</td>
<td>(256) 372-4803/Fax: (256)372-8288</td>
<td><a href="mailto:Malinda.gilmore@aamu.edu">Malinda.gilmore@aamu.edu</a></td>
</tr>
<tr>
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<td></td>
<td></td>
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<tr>
<td>*Alabama State University</td>
<td>Dr. B.K. Robertson</td>
<td>(334) 229-4423/Fax: (334)229-1007</td>
<td><a href="mailto:brobertson@alasu.edu">brobertson@alasu.edu</a></td>
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<tr>
<td>Athens State University</td>
<td>Dr. Sara Cline</td>
<td>(256) 233-6507</td>
<td><a href="mailto:sara.cline@athens.edu">sara.cline@athens.edu</a></td>
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<tr>
<td>*Auburn University</td>
<td>Dr. Anthony G. Moss</td>
<td>(334) 844-9257/Fax: (334) 844-9234</td>
<td><a href="mailto:mossant@auburn.edu">mossant@auburn.edu</a></td>
</tr>
<tr>
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<tr>
<td>Auburn University at Montgomery</td>
<td>Dr. John Aho</td>
<td>(334) 244-3787/Fax: (334)244-3826</td>
<td><a href="mailto:jaho@aum.edu">jaho@aum.edu</a></td>
</tr>
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</tr>
<tr>
<td>Birmingham Southern College</td>
<td>Dr. Andrew Gannon</td>
<td>(205) 226-4899/Fax: (205)226-3078</td>
<td><a href="mailto:agannon@bsc.edu">agannon@bsc.edu</a></td>
</tr>
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<tr>
<td>Huntington College</td>
<td>Dr. Paul Gier</td>
<td>(334) 833-4510/Fax: (334)833-4486</td>
<td><a href="mailto:pgier@huntingdon.edu">pgier@huntingdon.edu</a></td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td>Jacksonville State University</td>
<td>Dr. George Cline</td>
<td>(256) 782-5798/Fax: (256)782-5587</td>
<td><a href="mailto:gcline@jsu.edu">gcline@jsu.edu</a></td>
</tr>
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<tr>
<td>Judson College</td>
<td>Dr. Jeremy Olson</td>
<td>(334) 683-5206/Fax: (334)683-5282</td>
<td><a href="mailto:jolson@judson.edu">jolson@judson.edu</a></td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td>Samford University</td>
<td>Dr. Anthony S. Overton</td>
<td>(205)726-2944/Fax (205)726-2479</td>
<td><a href="mailto:aoverton@samford.edu">aoverton@samford.edu</a></td>
</tr>
<tr>
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</tr>
<tr>
<td>Spring Hill College</td>
<td>Dr. Charles Chester</td>
<td>(251) 380-3071/Fax : (251)460-2198</td>
<td><a href="mailto:cchester@shc.edu">cchester@shc.edu</a></td>
</tr>
</tbody>
</table>

**Apply and register online**

[www.disl.org/univ-prog/undergrad/apply](http://www.disl.org/univ-prog/undergrad/apply)
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. Lawrence Drummond
Div. of Natural & Comp. Science
627 West Battle Street
Talladega, AL 35160
Ph: (256) 761-6307/Fax: (256) 761-6437
ldrummond@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@mvytu.tuskegee.edu

*University of Alabama
Dr. Julie Olson
Dept. of Biological Sciences
PO Box 870344
Tuscaloosa, AL 35487-0344
Ph: (205) 348-2633/Fax: (205) 348-1786
jolson@bama.ua.edu

*University of Alabama at Birmingham
Dr. Ken Marion
Dept. of Biology/ Campbell Hall 464
1300 University Blvd.
Birmingham, AL 35294
Ph: (205) 934-8309/Fax: (205) 975-6097
kmarion@uab.edu

University of Alabama at Huntsville
Dr. Bruce Stallsmith
Dept. of Biological Sciences
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
lbaggett@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. Terry Richardson
Dept. of Biology, PO Box 5048
Florence, AL 35632
Ph: (256) 765-4429/Fax: (256) 443-9165
tdrichardson@una.edu

*University of South Alabama
Dr. Jack O’Brien
Dept. of Biology
Mobile, AL 36688
Ph: (251) 460-7525/Fax: (251) 414-8220
jobrien@southalabama.edu

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

*Schools with Graduate Programs

Apply and register online
www.disl.org/univ-prog/undergrad/apply
Dorm Monitor Application—Due March 15, 2019

Name (print) ________________________________________________________________

Date of Birth ________ Gender (M/F)_____ Social Security # (last 5 digits)__________

School attending ___________________________ Level (Frosh, Soph., Junior, Senior or Graduate)

Your current address at school: _________________________________________________

City ____________County _______________ State ______ Zip Code________ Phone#________

Your permanent address at home: _______________________________________________

City ____________County _______________ State ______ Zip Code________ Phone#________

Your email ___________________________________ Your cell phone #__________________

Emergency Contact: ___________________________________________________________

Contact’s relationship to you _____________________________ Contact Phone# _____________

What skills do you have that would suit you for this position?

List relevant courses/Experiences:

List Honors, Awards

Have you participated in DISL summer courses before?

Courses you intend to enroll in while at DISL:

Application Checklist:
1. A statement of intent
2. A transcript
3. Two letters of recommendation
4. Documentation of need (by Financial Aid Office or Student Advisor)
5. A submission of this form.

APPLY ONLINE:
www.disl.org/univ-prog/undergrad/undergraduate-funding/
Return by mail or email to: Regina Kollegger (rkollegger@disl.org), University Programs
Registrar, DISL, 101 Bienville Blvd., Dauphin Island, AL. 36528, 251/861-2141, ext. 7526.
Dorm Monitor Application—Due March 15, 2019

Preferably a graduate student. Compensation is $125 per week, plus a private room/meal plan in the dormitory. (2 positions available).

- Minimum of 2.50 cumulative G.P.A. Residence hall living and/or student leadership experience is required.
- Dorm Monitors/RA must have a clean driving record and valid driver’s license and cleared to drive on DISL insurance.
- Dorm Monitors/RA may be required to attend CPR training if not certified.
- There are two dorm monitors in Challenger Dorm. Male dorm monitor lives in Challenger 101, female monitor in 201. Males are typically housed on first floor; females second floor.
- Dorm Monitors/RA must be in residence for all three sessions and be able to be present on campus at least one-half of the weekends coordinating duties with the other dorm monitor.
- Dorm Monitors/RA should plan to arrive at least four to six days before the May term starts.

Basic Dorm Monitor/RA Job Description:
A Dorm Monitor/RA is the student staff member for the Challenger Dormitory, a residence hall area at the Dauphin Island Sea Lab. The Dorm Monitor/RA is a student leader among their peers that acts as assistant to and under the supervision of the University Programs Registrar. 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 such required by the University Programs Registrar.

Specific Dorm Monitor/RA Duties:
• Must practice confidentiality, be trustworthy, reliable, and able to communicate and follow rules and direction from University Program Registrar.
• Be willing to commit for the entire summer (approximately 12 weeks). Remain on campus before and after term for administrative responsibilities – make room assignments, distribute keys, submit required paperwork and current reports to University Programs Registrar.
• Serve as the on-call staff member for the residential area throughout the Summer Programs and holiday breaks as scheduled; rotating with other dorm monitor so that one of the two is always on campus; transport students to airport if needed, etc.
• Recognize that the Dorm Monitor/RA position is your primary out-of-class obligation.
• Demonstrate the characteristics of a Dorm Monitor/RA Leader.
• Facilitate community success by encouraging programming efforts and resident engagement.
• Administer the procedures and policies assigned by University Programs Registrar and Chair of University Programs.
• Serve as a resource to residents. Assist with emergency situations and illnesses.
• Report and follow-up with maintenance/dorm concerns (work orders).
• Be available and present for your residents as needed.
• Control noise and unruly residents and/or guests.
• Assist in the opening and closing procedures of the building as necessary (keeping doors locked, vacant rooms locked, etc.)
• Serve as a liaison to the residential community through University Programs Registrar.
• Support, promote, & implement programs as directed by the University Programs Registrar (by personal attendance).
• Communicate campus information as needed to University Programs Registrar.
Name (print) ________________________________________________________________

Date of Birth ________                   Gender (M/F)_____

School attending ______________________Level (Frosh, Soph., Junior, Senior or Graduate) _____

Your current address at school: ____________________________________________________

City ____________County _____________State ______Zip Code_______ Phone#___________

Your permanent address at home: ____________________________________________________

City ____________County _____________State ______Zip Code_______ Phone#___________

Your email ___________________________________ Your cell phone #__________________

Emergency Contact: _____________________________________________________________

Contact’s relationship to you___________________________ Contact Phone# _______________

Colleges you attend or have attended:

List relevant courses/Experiences:

List Honors, Awards, Publications:

Have you participated in DISL summer courses before?

Courses you intend to enroll in while at DISL:

Application Checklist:
1. A completed application form,
2. A statement from student outlining any relevant experience, and
3. Two letters of reference from individuals qualified to evaluation your performance of the responsibilities.

APPLY ONLINE:
www.disl.org/univ-prog/undergrad/undergraduate-funding/
Return by mail or email to: Regina Kollegger (rkollegger@disl.org), University Programs Registrar, DISL, 101 Bienville Blvd., Dauphin Island, AL. 36528, 251/861-2141, ext. 7526.
The Dauphin Island Sea Lab (DISL) is offering up to 5 Library Aide positions for the 2019 Summer Programs: May Term: May 13 – May 24, First Session: May 27 - June 28, Second Session: July 1 – August 2, 2019.

Library aides report to the University Programs Registrar.

**Qualifications/Requirements:**

- Library Aides should be enrolled in a minimum of 2 summer sessions.
- Library Aides must be mature and have a solid academic record.
- Preference will be given students who are enrolled in more than one session, but consideration will be given to students enrolled in one session. Employed students must attend an orientation session with IT and Registrar.

**Responsibilities:**

- Assist in the library and computer lab up to 10 hours per week.
- Work evenings and weekends after normal staff hours.
- Assist students as required in the library and computer lab.
- Perform clerical tasks needed in library and computer lab.
- Provide library and computer lab security after normal work week hours.

**Compensation: $7.25 per hour.**

**Application:**
A complete application must include the following documentation: (1) A completed application form, (2) a statement from student outlining any relevant experience, and (3) two letters of reference from individuals qualified to evaluation your performance of the responsibilities.

**APPLY ONLINE:**
http://www.disl.org/univ-prog/undergrad/undergraduate-funding/
Student Fellowship Application—Due March 15, 2019

Name (print) ________________________________________________________________

Date of Birth ________ Gender (M/F)______ Social Security # (last 5 digits)__________

School attending ______________________ Level (Frosh, Soph., Junior, Senior, Graduate) _____

Your current address at school: ___________________________________________________

City ____________ County _____________ State ______ Zip Code_______ Phone#___________

Your permanent address at home: _________________________________________________

City ____________ County _____________ State ______ Zip Code_______ Phone#___________

Your email ___________________________________ Your cell phone #__________________

Emergency Contact: ___________________________________________________________

Contact’s relationship to you ________________________________ Contact Phone# ___________

List relevant courses/The Experiences:

List Honors, Awards, Publications:

Have you participated in DISL summer courses before?

Courses you intend to enroll in while at DISL

Application Checklist:
1. A statement of intent
2. A transcript
3. Two letters of recommendation.
4. Documentation of need (by Financial Aid Office or Student Advisor)
5. A submission of this form.

APPLY ONLINE:
www.disl.org/univ-prog/undergrad/undergraduate-funding/
Return by mail or email to: Regina Kollegger (rkollegger@disl.org), University Programs, Registrar, DISL, 101 Bienville Blvd., Dauphin Island, AL. 36528, 251/861-2141, ext. 7526
The Dauphin Island Sea Lab (DISL) may offer fellowships for the 2019 Summer Programs. Fellowships will be awarded on an academically competitive basis to applicants of demonstrated financial need who are enrolled at DISL member institutions. The Rita George Fellowship will be awarded to qualified students demonstrating exceptional financial need. The George F. Crozier Scholarship in Coastal Policy is available to students with demonstrated financial need who are interested in coastal zone policy and coastal zone management. Fellowships are available to both undergraduate and graduate students registered for a minimum of 4 semester hours per term at DISL.

**Enrollment for a minimum of two summer sessions at the Sea Lab is required.**

A complete fellowship application must include the following documents:

- A completed DISL Summer School application form.
- An official transcript.
- A written statement by the student indicating career goals, the role of the DISL summer program in the student’s curriculum and the need for assistance.
- Documentation of need [A letter from the campus Financial Aid Office is preferred. However, a statement by the student indicating how the student’s college expenses have been covered and the efforts by the student to support college costs may be accepted in addition to documented proof (tax returns).]
- Two letters of recommendation providing an evaluation of the student’s academic performance.
- GRE scores (graduate students). ACT/SAT scores (undergraduate students).

**Qualifications/Restrictions:** Applicants must be majoring or minoring in marine science or taking a concentration in marine science, depending on the structure of the particular campus program.

**Compensation:** Each fellowship will be awarded for up to 12 weeks with compensation varying from room and board (7-day meal plan, lab fees and/or activity fees. However, the fellowship does not apply towards tuition costs, or additional fees/expenses for the travel costs associated with courses such as Biology and Conservation of Marine Turtles. Additional fellowships are provided by some DISL member schools. Consult your campus liaison officer for availability on your campus.

**DEADLINE FOR APPLICATIONS:** March 15, 2019

Apply and register online
www.disl.org/univ-prog/undergrad/apply
### May Sessions - May 13-May 24

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
<th>1st Choice</th>
<th>2nd Choice</th>
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</thead>
<tbody>
<tr>
<td><strong>Additional fees apply &amp; are approximate/ non-refundable</strong></td>
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<tr>
<td><strong>Biology &amp; Conservation of Marine Turtles</strong></td>
<td>(2) UG</td>
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<tr>
<td><strong>Dolphins and Whales</strong></td>
<td>(2) UG</td>
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<tr>
<td><strong>Ecology of the Florida Everglades</strong></td>
<td>(2) UG</td>
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<tr>
<td><strong>Shark and Ray Biology</strong></td>
<td>(2) UG</td>
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</tr>
<tr>
<td><strong>Shellfish Aquaculture of the GOM</strong></td>
<td>(2) UG</td>
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</table>

**Biology & Conservation of Marine Turtles** (2) UG/G

**Dolphins and Whales** (2) UG

**Ecology of the Florida Everglades** (2) UG/G

**Shark and Ray Biology** (2) UG

**Shellfish Aquaculture of the GOM** (2) UG/G

### Special May Session May 6-30 MX

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>Exploring the Chemical Ecology of Tropical Marine Systems</td>
<td>(4) UG/G</td>
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### 1st Session May 27-June 28 - 5 weeks

#### A4 Courses

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Coastal Wetlands Ecology</td>
<td>(4) UG/G</td>
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<tr>
<td>Marine Botany</td>
<td>(4) UG/G</td>
<td></td>
<td></td>
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<tr>
<td>Marine Biology</td>
<td>(4) UG</td>
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<tr>
<td>Marine Mammals</td>
<td>(4) UG</td>
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#### A2 Courses

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Coastal Birds</td>
<td>(2) UG</td>
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<tr>
<td>Hurricanes of the Gulf Coast</td>
<td>(2) UG</td>
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#### B4 Courses

<table>
<thead>
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<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>Marine Vertebrate Zoology</td>
<td>(4) UG/G</td>
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<tr>
<td>Intro to Oceanography</td>
<td>(4) UG/G</td>
<td></td>
<td></td>
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<tr>
<td>Marine Geology</td>
<td>(4) UG/G</td>
<td></td>
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<tr>
<td>Marine Ecology</td>
<td>(4) UG/G</td>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Marine Restoration Ecology</td>
<td>(2) UG</td>
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### 2nd Session July 1-Aug. 2 - 5 weeks

#### C6 Courses

<table>
<thead>
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<tbody>
<tr>
<td>Marine Ichthyology</td>
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#### C4 Courses

<table>
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<tr>
<th>Course</th>
<th>Credit</th>
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<th>2nd Choice</th>
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</thead>
<tbody>
<tr>
<td>Marine Biology</td>
<td>(4) UG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marine Behavioral Ecology</td>
<td>(4) UG</td>
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<tr>
<td>Marine Conv. Biology</td>
<td>(4) UG/G</td>
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<tr>
<td>Marine Invert. Zoology</td>
<td>(4) UG/G</td>
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</table>

#### C2 Courses

<table>
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<tr>
<th>Course</th>
<th>Credit</th>
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<th>2nd Choice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine Aquaculture</td>
<td>(2) UG/G</td>
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<td></td>
</tr>
<tr>
<td>Plankton Biology</td>
<td>(2) UG</td>
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#### D4 Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>Intro to Oceanography</td>
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<tr>
<td>Marine Vertebrate Zoology</td>
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#### D2 Courses

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</thead>
<tbody>
<tr>
<td>Shark and Ray Biology</td>
<td>(2) UG</td>
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<td></td>
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<tr>
<td>Marine Mammal Health</td>
<td>(2) UG</td>
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#### D2A Course-note time schedule

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
<th>1st Choice</th>
<th>2nd Choice</th>
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</thead>
<tbody>
<tr>
<td>Biotic Response to Sea Level Change</td>
<td>(2) UG</td>
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### Schedule EX/FX Special Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
<th>1st Choice</th>
<th>2nd Choice</th>
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</thead>
<tbody>
<tr>
<td>Intro. To Neurobiology</td>
<td>(3) UG</td>
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<tr>
<td>Scientific Diving</td>
<td>(4) UG</td>
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</table>

### 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.
**Student Admission Preliminary Application—Due March 15, 2019**

**Application deadline for priority registration: February 15, 2019**—Please note you will be required to submit a signed advisement sheet and complete an online application after submission of this paper application.

Name (print) ________________________________________________________________

Date of Birth ________ Gender (M/F)______ Social Security # (last 5 digits)__________

MESC School registering through ________________________________________________

Student ID#_____________ Level (Frosh, Soph., Junior, Senior, Graduate) ______________

Are you paying out-of-state tuition? ______Other institutions attended, degrees, dates ________________________________

Your current address at school: _________________________________________________

City ____________ County _____________ State ______Zip Code_______ Phone#___________

Your permanent address at home: ________________________________________________

City ____________ County _____________ State ______Zip Code_______ Phone#___________

Your email ___________________________________ Your cell phone #__________________

Emergency Contact: ____________________________________________________________

Contact’s relationship to you _______________________________ Contact Phone# _______________

Do you have any allergies, particularly to drugs or medication?  Yes No

If yes please describe: __________________________________________________________________

Please list prescribed medications: __________________________________________________________________

Are you susceptible to motion sickness? ____________________________

Will you need dormitory accommodations? Yes No  **If yes you must purchase a meal plan**

If space is available in dorms, would you like a private room at additional cost? Yes No

If you are staying in the dorm and would like to room with a particular person who will also be attending the program, please provide his/her name:______________________________________________

Would you like a meal plan? Yes No  If yes, which plan?  5 day 7 day

Application will not be accepted without $75 application fee and signature of campus liaison officer. (Fee is non-refundable unless the course a student registered for is full or canceled; and another choice is not an option.) Once you have received notice that you are enrolled in classes at DISL, you MUST also register at your home campus and pay their campus tuition. Send completed application and $75 application fee to: DISL, UP Registrar, 101 Bienville Blvd., Dauphin Island, AL 36528. It is important to list both first and second choices for courses whenever possible. If applying online the advisor sheet must be signed and uploaded to your web application.

All courses are subject to change.

**Apply and register online**

www.disl.org/univ-prog/undergrad/apply
Dauphin Island Sea Lab Facilities Map

1. Administration Offices *
2. Maintenance/Vehicle Yard
3. Albatross Hall (Grad Apartments)
4. Laundromat
5. DHP Tech Ctr/Classroom S/Grad Offices
6. Endeavor Hall (Classrooms)
7. Basketball, Volley Ball Courts
8. Discovery Hall (Classrooms/Offices)
9. Horizon Hall (Classrooms/Offices)
10. Galathea Hall (Classroom)
11. Sea Pines
12. Auburn Univ. Shellfish Research
13. Swimming Pool
14. Mesocosm
15. May’s Cafe
16. Challenger Hall (Dormitory)
17. Beagle Hall (Dormitory)
18-10. Greeters House
18-1->9. Housing
19. Storage Building
20. Wiese Marine Science Hall
21. Husbandry Building
22. Estuarium & Gift Shop *
23. Living Marsh & Boardwalk *
24. Ladner Pavillion *
25. Wet Lab
26. Shelby Fisheries Center
27. Marine Mammal Research Center
28. DISL Research Vessels

Severe Weather Shelter Areas
Automated External Defibrillators
* Open to the Public

Audobon Sanctuary
Fort Gaines
Fieldwork

"The immersion at DISL was one of the best educational experiences I have encountered so far. The professors were well prepared and engaged the students every step of the way. The staff and the location also added to the excellent immersion into the Marine Sciences. Thank you all so much for an awesome experience.

Karenda Plotka, UAH"

"Being out in the field you really learn what you’re going to be doing with your major, and see if you’re actually going to enjoy doing it.”

Randall Bassham, Troy

"Field work is a chance to put what I’m studying into practice and get an idea of what the average day in the life is like as a grad student or a field technician.”

Kevin Jones, UAB

"The importance of being on a boat as opposed to being in a classroom is you learn more. There’s more hands-on experience.”

Jessica Sappington, USA

Small Class Size

From Delta to the Ocean Deep

Dauphin Island, AL

www.DISL.org