

DAUPHIN ISLAND SEA LAB SUMMER 2025! May 12 - August 15



Island

Sea Lab

101 Bienville Blvd. Dauphin Island, AL 36528 Phone: 251-861-2141 ext. 7526 Registrar: Rashard Ward rward@disl.edu



Alabama Center for Marine Education and Research

Apply Today

https://www.disl.edu/university-programs/summer/

IMPORTANT DATES

Priority Course Registration Deadline	February 17, 2025
Scholarship/Work Study Application Deadline	March 14, 2025
Late Fee Charged (\$50) for Registration after March 31, 2025	Post March 31, 2025
Payment of DISL Housing & Meal Plans Due	May 2, 2025
Final Course Registration Deadline	May 2, 2025

DISL Campus Contact Information

Mr. Rashard Ward, University Programs Registrar	rward@disl.edu
Dr. Lee Smee, University Programs Chair	lsmee@disl.edu
Dr. Jessica Lunt, Undergraduate Program Coordinator	jlunt@disl.edu
Ms. Jessica Hilliker, University Programs T.A	jhilliker@disl.edu
Mrs. Daphne Hardwick, Bursar	dhardwick@disl.org
Ms. Melissa Mills, Information Technology	mmills@disl.edu
Ms. Angela Levins, Public Relations	alevins@disl.edu
Dr. John Valentine, Executive Director	sstephens@disl.edu

Fees, Tuition, Room & Board Costs

Course Tuition is Paid to Your University

After confirmation of enrollment at DISL, students must register and pay course tuition <u>at their home</u> <u>campus.</u>

ALL Room and Meal Plans, DISL & Travel Fees are paid directly to DISL.

PAYMENT DEADLINES

1. All DISL Fees (see DISL fees below) are due at the time of course registration. Non payment of fees can affect your course enrollment. Special payment arrangements must be preapproved by the DISL bursar, Mrs. Daphne Hardwick, dhardwick@disl.org, ext. 7512.

A late fee charge of \$50 will be added if registering after March 31st, 2025.

DISL Fees:

Student Application Fee \$75.00 one-time fee Student Registration Fee \$35.00 per term Lab Fee \$20.00 per credit (except Auburn University students) DISL Campus Fees \$450 (parking, printing, ID, facilities & vehicles) Late Registration Fees \$50.00 (if registering after March 31, 2025) for Summer

2. All room and meal plan payments are due by May 2nd 2025
All dormitory residents are required to purchase meal plans.
(Preparation of food in the dormitories is absolutely prohibited)

Meal Plans:

Unlimited meals \$250.00/week 15 meals/week \$200.00/week 10 meals/week \$150.00/week

Dietary needs will be respected but must be communicated clearly on the meal plan request form. You may contact the registrar Rashard Ward, rward@disl.edu, or the cafeteria manager, Savannah Griggs, sgriggs@disl.edu, to discuss concerns or necessary accommodations.

Dorm Plans:

2 week shared room \$300.00 2 week private room \$500.00 5 week shared room \$750.00 5 week private room \$950.00

Fees, Tuition, Room & Board Costs

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 twin bed linens. No pets, cooking equipment, refrigerators, coffee makers, etc., are allowed. (For info regarding Service animals, please contact the DISL 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 via your online application. Private rooms will be issued on a per session basis and cannot be guaranteed for all terms.

Students may check into the DISL Challenger dorms after 12:00 noon the Sunday before class begins on Monday. If an earlier check-in is required, students should notify the registrar to make accommodations. Note the café is not open during early check-in.

After courses end on Friday, students will be expected to check out of the dorms on Saturday before 9:00 a.m. unless they are enrolled in the next summer session. 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.

Payment to DISL

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 Mrs. Daphne Hardwick, Bursar, 101 Bienville Blvd., Dauphin Island, Alabama 36528. Call (251) 861-2141, ext. 7512 with questions to Mrs. Hardwick. DISL fees may be paid on a session basis if arranged beforehand with the DISL Bursar.

Once a student begins class, no refunds for lab or DISL fees will be issued. Prorated room and board will be issued for student withdrawal where applicable. Travel fees are non-refundable, unless the course is cancelled.

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.

Summer Course Registration

Submission deadline for priority registration: February 17, 2025

DISL will accept registrations until May 2, 2025; however, courses will fill early and students should try to send their registrations before the priority registration date.

Nonpayment of fees will result in a late fee charge of \$50 to be added after March 31, 2025.

Step #1 Complete the DISL Summer Online Forms:

- Visit <u>https://www.disl.edu/university-programs/undergraduate/</u> for instructions and the 2025 Summer Application Link.
 - Complete Summer application. A one-time \$75.00 application fee. Requires ID photo upload. (Not for returning students)
 - Complete online course registration, health & vessel waiver (\$35.00 registration fee)
 - Requires signed advisor form, notarized vessel waiver, and notarized health waiver.
 - Complete housing and meal plan request Form.

Step #2 Confirmation of DISL Course Enrollment

- DISL will email a confirmation of your course enrollment after the priority registration deadline of February 17, 2025. This email will include instructions to login to your DISL Student account via disl.populiweb.com, and a link to additional forms and documents.
- Once you login to your student account on DISL.Populiweb.com, you will be able to view a listing of your courses and the status of your enrollment (registered or waiting list).
- Your DISL bill is payable online (DISL fees are due by February 17th).

DISL fees may be paid on a session-by-session basis if arranged beforehand with the DISL Bursar, Daphne Hardwick (dhardwick@disl.org).

Step #3 Enrollment at Your Home Campus

- You MUST also register at your home campus & pay your home campus tuition
- You must submit proof of home campus tuition paid and a schedule of courses registered for at your home campus to the DISL Registrar. This can be done via email or online

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.

Summer Course Registration

Step #4 Confirmation of Cross Registration at Home Institution and Course Attendance

- You must provide the DISL UP Registrar with a receipt of course enrollment at your home institution.
- All summer faculty are required to take attendance. If a student fails to attend the first two days of the course, the student will be withdrawn from the course.

Frequently Asked Questions

Do I have to enroll at both my home school and at the DISL for my summer course?

Yes, to receive academic credit for your courses you **MUST** register for your class at your home institution and at the DISL. Be sure to get your academic advisor's approval for your course selections.

Will I receive two billing statements for my summer courses at DISL?

Yes, your home institution will invoice your tuition. The DISL will invoice academic and facility fees as well as your room and board if you decide to live on the DISL campus.

Can out-of-state students enroll in DISL Summer UP courses?

Yes, however, your home school will need to enter into an agreement with the DISL for academic credits to transfer. Please contact the DISL Registrar Rashard Ward for more info.

Do I have to be enrolled in a college to take DISL Summer UP courses?

No, you do not need to be enrolled in college to take our courses. You may audit our courses for a fee but will not receive academic credit for your enrollment.

Do you offer financial aid?

DISL does not offer a financial aid program. You will need to coordinate your financial aid through your home institution. The DISL does offer student work-study and scholarship opportunities.

Are there housing options on Dauphin Island other than DISL campus living?

Sometimes there are houses available for rent on Dauphin Island, however, you will need to search and coordinate these options on your own.

Scholarship & Work Study Opportunities

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

A completed online scholarship or work study application must include the following items and must be received by March 14, 2025.

Online Scholarship and Work Study Application Form

https://disl.populiweb.com/router/admissions/onlineapplications/index?application_form=31664

- A cover letter (2-page max) describing background, qualifications & financial need.
- Transcripts for all college courses taken (unofficial copies are acceptable)
- A CV or resume describing relevant coursework, research/work experience, honors & extracurricular activities.
- Three (3) Letters of recommendation. These letters should be from individuals that can evaluate academic potential such as professors or employers.

Scholarships

The following scholarships are available. Applicants will be considered for all scholarships.

- The Rita George & George Crozier Scholarships provide 12 weeks of room and board for students enrolled in DISL summer courses.
- DISL Foundation Scholarships waive academic fees and travel fees for summer school.

Work Study

Laboratory intern – Interns work in the lab of a DISL faculty member assisting with authentic research projects. Interns typically work 5-10 hours per week, but this is somewhat variable depending upon the nature of the work performed. Interns often work on weekends. This opportunity provides a unique experience to gain research experience. Interns earn \$10 an hour.

<u>Library Aides</u> – Library Aides work 10 hours per week to staff the library and computer lab after hours. Library aides earn \$10 per hour.

Dorm Monitors – Dorm monitors receive \$125 per week, receive a private dorm room and a meal plan.



May Session

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MAY 12 - MAY 23			
Course Credit Professor			
Biology & Conservation of Turtles	(2) UG/G	Dr. Thane Wibbels twibbels@uab.edu	
Dolphins & Whales	(2) UG/G	Dr. Jennifer Lewis jlewis33@gmu.edu	
Shark & Ray Biology	(2) UG/G	Dr. Marcus Drymon marcus.drymon@msstate.edu	
Coastal Zone Management	(2) UG/G	Dr. Chris Anderson andercj@auburn.edu	
Coral Reef Session April 1st - May 23rd			
Coral Reef Biology & Ecology	(4) UG/G	Dr. Ben Titus btitus@disl.edu	





1ST SUMMER SESSION MAY 26 - JUNE 27

Course	Credit	Professor
Coastal Birds of	(2)	Dr. Mark Woodrey
Alabama	UG/G	msw103@msstate.edu
Coastal Wetlands	(4)	Dr. Andrew Gannon
Ecology	UG/G	agannon@disl.org
Experimental	(4)	Dr. Anthony Moss
Plankton Biology	UG/G	mossant@auburn.edu
Marine Geology	(4) UG/G	Dr. Emily Elliot emily.elliott@ua.edu
Hurricanes of The	(2)	Dr. Josh Bregy
Gulf Coast	UG/G	jbregy@clemson.edu
Marine Biology	(4) UG/G	Dr. Jennifer Estes jenny.estes@montevallo.edu
Marine Botany	(4) UG/G	Dr. Jeremiah Henning henning@southalabama.edu
Marine Mammals	(4) UG/G	Dr. Jennifer Lewis jlewis33@gmu.edu
Intro To	(4)	Dr. Jeff Krause
Oceanography	UG/G	jkrause@disl.org



Summer Courses

1ST SUMMER SESSION MAY 26 - JUNE 27

Course	Credit	Professor
Marine Restoration	(2)	Ben Belgrad
Ecology	UG/G	bbelgrad@disl.org
Marine Vertebrate	(4)	Dr. Andy Coleman
Zoology	UG/G	acoleman@talladega.edu
Environmental Applications of GIS (Online Only)	(2) UG/G	Dr. Jonathan Fleming jflemin7@samford.edu







2ND SUMMER SESSION JUNE 30 - AUGUST 1

Course	Credit	Professor
Marine Behavioral Ecology	(4) UG/G	Dr. Paul Gier pgier@hawks.huntingdon.edu
Marine Mammal Health	(2) UG/G	Dr. Catherina Vendl cvendl@disl.edu
Biotic Response to Sea Level Change (Online Only)	(2) UG/G	ТВА
Marine Biology	(4) UG/G	Dr. Ken Hoadley khoadley@disl.org
Marine Conservation Biology	(4) UG/G	Dr. Melissa Partyka mlp0069@auburn.edu
Marine Ecology	(4) UG/G	Dr. Marc Weissburg marc.weissburg@biology.gatech. edu





2nd Summer Session June 30 - August 1

Course	Credit	Professor	
Marine Invertebrate Zoology	(4) UG/G	Dr. Andrew Gannon agannon@disl.org	
Marine Vertebrate Zoology	(4) UG/G	Dr. Mark Albins malbins@disl.org	
Intro to Oceanography	(4) UG	Randi Cannon rcannon@disl.org	
Marine Biology Hybrid Session June 30 - August 8			
**Marine Biology Hybrid	(4) UG/G	Dr. Andrew Gannon agannon@disl.org	
Neurobiology Session August 4 - August 15			
Intro to Neurobiology	(3) UG/G	Dr. Christianne Strang cstrang@uab.edu	

** Marine Biology Hybrid is online during the 5-week session but requires students to be at DISL August 4 - August 8

MESC Institutions & Campus Liaison Officers

Alabama A&M University

Dr. Elica Moss Research Assistant Professor Dept of Biological & Environmental Sciences 212 Carver Complex South-Thomas Wing Alabama A&M University Normal, AL 35762 (256) 372-8219 <u>elica.moss@aamu.edu</u>

Alabama State University

Dr. Sabita Saldanha Dept of Biological Sciences 915 S. Jackson Street Montgomery, AL 36104 Ph: (334) 604-8416 Fax: (334) 229-1007 <u>ssaldanha@alasu.edu</u>

Athens State University

Dr. Shannon Pittman College of Arts & Sciences S303A Waters Hall, 300 N. Beaty Street Athens, AL 35611 Ph: (256) 233-6507 <u>Shannon.Pittman@athens.edu</u>

Auburn University at Montgomery

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Jacksonville State University

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Auburn University

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Huntingdon College

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

Samford University

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

MESC Institutions & Campus Liaison Officers

Spring Hill College

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

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

University of Montevallo

Dr. Jill Wicknick Dept. of Biology, Station 6480 Montevallo, AL 35115 Ph: (205) 665-6458/Fax: (205)665-6477 <u>Wicknickja@montevallo.edu</u>

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 Birmingham

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

Stillman College

Dr. Tasha Drake School of Arts & Sciences 3601 Stillman Blvd Tuscaloosa, AL 35401 Ph: (205) 366-8929 tdrake@stillman.edu

Troy University

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

Tuskegee University

Dr. Richard Whittington Dept. of Biology Tuskegee, AL 36088 (334) 724-4218/Fax: (334)724-3919 rwittington1@tuskegee.edu

University of Alabama Huntsville

Dr. Zachary Culumber Dept. of Biological Sciences Huntsville, AL 35899 Ph: (256) 824-6992/Fax: (256)824-6305 Zachary.Culumber@uah.edu

University of Mobile

Dr. Kim Albins Dept. of Natural Sciences 5735 College Parkway Mobile, AL 36613 Ph: (251) 442-2245/Fax: (251)442-2523 kalbins@umobile.edu

MESC Institutions & Campus Liaison Officers

University of North Alabama

Dr. Emily Kasl Dept. of Biology PO Box 5048 Florence, AL 35632 Ph: (256) 765-4703/Fax: (256)443-9165 <u>ekasl@una.edu</u>

University of West Alabama

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

University of South Alabama

Dr. Amy Sprinkle Dept. of Biology Mobile, AL 36688 Ph: (251) 460-7525/Fax: (251)414-8220 <u>sprinkle@southalabama.edu</u>





Summer Course Descriptions

Dolphins & Whales

This class will be an introduction to the biology of cetaceans (toothed & 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.

Shark & Ray Biology

This course focuses on the biology of sharks and rays, focusing on regional shark fauna and field techniques. Topics include chondrichthyan origin, systematics, sensory biology, locomotion, food consumption, osmoregulation, reproductive biology, life history, ecology, fisheries, and conservation. Lectures will include discussions of primary literature and field techniques through longline and gillnet sampling. As well as shark identification.

Prerequisites - General Biology or Organismal Biology

Coastal Zone Management

A review of ecological features of management policies for coastal communities with a description of relevant federal and state programs. This introductory level course examines the various aspects of coastal zone management in the United States by 1) examining the major substantive and procedural aspects of specific laws and regulations which govern activity in the coastal zone environment and processes; and 2) examining how coastal environments and processes affect specific management issues of the zone.



Coral Reef Biology & Ecology

This course will explore the ecology and evolution of coral reef communities within a rapidly changing climate. This 4-credit course will begin with self-paced online course lectures and activities beginning in late spring (April). In May the class will travel to a natural coral reef site to complete the field-based laboratory portion of the course. Overall, this course covers energy flow across reefs, biogeochemical cycling important for continual reef development, microbial interactions that govern the flow of carbon and nitrogen through coral reefs, and current threats from climate change.

*Special fees apply and will be determined by the number of participants in the course (approximately \$1500-\$2000). The field trip location varies annually as does the specific travel dates and cost. Please reach out to the course instructor or to the registrar for further information.

Biology & Conservation of Turtles

This course offers an in-depth understanding of marine turtle biology and conservation, covering topics such as identification, distribution, nesting behavior, migratory behavior, feeding ecology, population biology, genetics, developmental habitats, temperature dependent sex determination, paleontology, and conservation. Students will gain a comprehensive understanding of sea turtle biology, understand why some species have become endangered, and learn how proper management has helped some populations recover. The course concludes with an overnight field trip to southeastern U.S. nesting beaches and research facilities, allowing students to observe turtles in their natural habitats.

*Special fees apply and will be determined based on enrollment. **Prerequisites** - General Biology.



Marine Invertebrate Zoology

This course surveys the morphology, natural history, and evolutionary relationships of marine invertebrates.

The course includes lectures, laboratory exercises and extended field trips.

Participation in overnight field trips is a part of this course.

Snorkeling gear will be needed.

Prerequisites - General Biology or Zoology.

Marine Biology

This class explores marine plants, invertebrates, vertebrates, their communities, and their influence. Field trips will cover marsh, seagrass, and dune habitats. Students will learn about marine habitat diversity through sampling and laboratory exercises. Organisms will be identified using dichotomous keys. Overnight field trips require snorkeling gear.

Prerequisites - General Biology.

Marine Botany

This class explores marine algae, salt marsh vegetation, mangroves, seagrasses, and maritime forest

communities, with lectures on identification, distribution, structure, ecology, and physiology. Overnight field and laboratory work, including wading and snorkeling, requires snorkeling gear.

Prerequisites - General Biology

Marine Mammals

This course will cover the evolutionary history, taxonomy/classification, anatomy, physiology, behavior, and

conservation/management issues of marine mammals (cetaceans, pinnipeds, mustelids, sirenians and the polar bear). In addition, research methods used to study marine mammals will be taught (including field and lab techniques). **Prerequisites** – General Biology.

Marine Geology

This course surveys the morphology, natural history, and evolutionary relationships of marine invertebrates. The course includes lectures, laboratory exercises and extended field trips. Participation in overnight field trips is a part of this course. Snorkeling gear will be needed.

Prerequisites - General Biology or Zoology.

Marine Restoration Ecology

This course focuses on marine habitat restoration, scientific and technical principles, ecological concepts and its role in science and society. Students will learn to identify structural and functional components of marine habitats, design restoration projects, and implement adaptive management strategies. They will also learn about the interdisciplinary nature of restoration science, including social, ethical, political, and economic aspects. Lectures will be supplemented by primary literature reading assignments. Field trips will allow students to see local restoration sites and learn monitoring techniques used in various habitats (salt marsh, oyster reef, seagrass bed).

Prerequisites - General Biology

Hurricanes of The Gulf Coast

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. 8) Gulf hurricane forecasting

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.

Marine Aquaculture

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, invertebrate zoology suggested, but not required.

Experimental Plankton Biology

This course examines the full diversity of microbial, phyto- and zooplankton in coastal to open ocean environments and will allow students to experimentally manipulate plankton. Students will learn the life cycles of planktonic organisms and will understand the diversity of plankton available within the Mobile Bay, Mississippi Sound, and open coastal waters in the vicinity of Dauphin Island Area. Students will identify plankton and learn how to assay plankton populations using classic filtration, microscopy, and molecular methods. Students will become familiar with the seasonal drivers of planktonic populations. Students will become proficient with their understanding of the microbial loop, anthropogenic impacts on phyto- and zooplankton and the mechanisms and implications of explosive jellyfish blooms, the concept of 'Jelly World', invasive species, and HABs. Students will experience diel migration in offshore day and night excursions.

Students will examine 1-2 new research papers each week in a brief journal club type session in which the topic will be critiqued by the group. This is an experimental course: All students will become familiar with the setup of an experiment and will work in groups of two to research an aspect of the biology of their favorite planktonic organism. Each student will keep a detailed notebook of collections (periodically reviewed) and their experiment, and additionally, will give a tenminute classroom presentation or demonstration on their favorite planktonic organism.

Students will have short quizzes each week to help students stay up to date, accumulative final test and will be graded for attendance. A textbook is required (Johnson & Allen, Zooplankton of the Atlantic and Gulf Coasts, Johns Hopkins Univ. Press) and an optional recommended highly visual text (Sardet, Plankton, Univ. Chicago Press) is suggested. Scientific papers will be provided online for no additional cost; numerous additional identification manuals/links will be made available. A prior course in Organismal Biology or equivalent is highly desirable but not required.



Coastal Wetlands Ecology

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, but 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 & Botany or Zoology.

Marine Vertebrate Zoology

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 & accompanying labs.



Coastal Birds of Alabama

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 Mark.Woodrey@msstate.edu.

Prerequisites - General Biology or Zoology

Intro to Oceanography

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 firsthand 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 and 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 - General Biology



Marine Conservation Biology

This advanced course, suitable for juniors, seniors, and graduate students, aims to explore marine biodiversity threats and potential solutions. Students will participate in class discussions, critically evaluate primary literature, and explore various entities perspectives on marine conservation issues. Field trips will support lectures and demonstrate the application of current principles in marine conservation.

Prerequisites - General Biology

Environmental Applications of GIS (Online Only)

This course consists of learning applied mapping and analysis with GIS and will leverage other geospatial techniques including remote sensing, geovisualization, and spatial analysis with particular emphasis on environmental applications. Students will use knowledge acquired from readings, guided activities, and instructor demonstrations to apply GIS data including vector and raster spatial data, imagery, maps, and surface models in examinations of contemporary coastal and marine science issues. Students will be exposed to working with spatial information regarding human and natural hazards and disasters, land use and land cover, coastal monitoring, and other relevant data types. Some lectures are required, but this course will emphasize a "hands-on" approach to learning GIS through practical assignments and projects in a computer lab and in the field. Industry leading ArcGIS software will be used along with exposure to online and open-source technology.

Prerequisites - Statistics or equivalent course in math.



Marine Biology Hybrid

This is a six-week asynchronous Marine Biology course with an additional week in person at the Dauphin Island Sea Lab for field and lab activities (August 1st - August 8th). The online portion of the course is asynchronous and does not have specific meeting times, however assignments and activities are due on a weekly basis. Students are expected to complete work within the specific week it is assigned. Students must attend the in person field and lab portion of the course, which starts August 1 and ends August 8.

Marine Biology Hybrid is online during the 5-week session but requires students to be at DISL August 1 - August 8.

Biotic Response to Sea Level Change (Online Only)

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.

This course is online and asynchronous with optional field trips (days TBA).



Marine Behavioral Ecology

The course examines how animal behavior is influenced by and interacts with its environment, and the ecological and evolutionary significance of these behaviors in a marine setting. Students will learn principles of behavioral ecology as they relate to marine animals, become familiar with techniques for observing animal behavior and conducting behavioral experiments, and be introduced to methods for collecting and analyzing behavioral data. Snorkeling gear will be needed.

Prerequisites - Marine Invertebrate Zoology or Marine Vertebrate Zoology

Marine Mammal Health

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

Prerequisites - Junior or Senior, completion of Dolphins & Whales or Marine Mammals course; graduate student; or consent of the instructor.



Intro to Neurobiology

Students will be introduced to the neurobiological bases of neuronal communication and behavior. Topics include invertebrate and vertebrate neuroanatomy, neurons and glia, resting potentials, action potentials, synaptic transmission, neurotransmitters and receptors, sensory transduction, and sensorimotor integration.

The course includes an asynchronous online academic component and an intensive 10-day inperson lab component that is taught at Dauphin Island Sea Lab Facilities, Dauphin Island, Alabama. The following are recommended but not required: general chemistry and general physics; or permission of the instructor.

Prerequisites - General Biology

DISL Summer Program Faculty & Research Interest

Albins, Mark A., Ph.D. Research Associate, University of South Alabama. malbins@disl.edu.

Anderson, Christopher, Ph.D. Professor of Wetland Ecology, Auburn University andercj@auburn.edu

Belgrad, Benjamin, Ph.D. Professor, Dauphin Island Sea Lab, bbelgrad@disl.org

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Drymon, J. Marcus, Ph.D. Assistant Extension Professor, Mississippi State University <u>marcus.drymon@msstate.edu.</u>

Elliott, Emily A. (Timmons), Ph.D. Professor, University of Alabama. emily.elliott@ua.edu.

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Hoadley, Kenneth, Ph. D Senior Marine Scientist I DISL, Assist. Professor, University of Alabama khoadley@disl.edu

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DISL Summer Program Faculty & Research Interest

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Weissburg, Marc, Ph.D. Professor, Georgia Tech University, <u>marc.weissburg@biology.gatech.edu</u>

Wibbels, Thane, Ph.D. Associate Professor of Biology, University of Alabama Birmingham. <u>twibbels@uab.edu.</u>

Wofford-Mares, Sarah, Ph.D. Assist. Professor, Dept. of Biology, Jacksonville State Univ, sw22ba@fsu.edu

Woodrey, Mark, Ph.D. Avian Ecologist/Coastal Ecologist at Mississippi State University, <u>msw103@ra.msstate.edu.</u>

Dauphin Island Sea Lab Facilities Map



- * 1. Administrative Offices, Registration, Classroom and Study Hall
 - 2. Maintenance/Vehicle-Boat Yard
 - 3. Albatross Hall (Closed)
 - 4. Laundromat
 - 5. DHP Computer Lab/Classroom 5
 - 6. Endeavor Hall (Classrooms)
 - 7. Basketball, Volleyball Courts
 - 8. Discovery Hall (Classrooms/Offices)
 - 9. Horizon Hall (Classrooms/Offices)
 - 10. Galathea Hall (Class/Meeting Room)
 - 11. Sea Pines
 - 12. Swimming Pool
 - 13. Mesocosm Facility
 - 14. Future Aquatic Center
 - 15. May's Cafe
 - 16. Challenger Hall (Dormitory)
 - 17. Beagle Hall (Dormitory)
 - 18. (#1-10), Faculty Housing
 - 19. Multistressor Lab Building
- 20. Wiese Marine Science Hall
- 21. Husbandry Building
- * 22. Alabama Aquarium, Gift Shop
 - 23. Living Marsh and Boardwalk
- * 24. Ladner Pavilion
 - 25. Auburn Univ. Shellfish Lab
 - 26. Wet Lab
 - 27. Shelby Fisheries Management Center
 - 28. Marine Mammal Research Center
- * A. To the Water Tower and Audubon Sanctuary
- * B. To Fort Gaines
 - C. To Gulf of Mexico Beach
 - D. To DISL Research Vessels

* - OPEN TO THE PUBLIC



Severe Weather Shelter

Automated External Defibrillators

May Session: May 12 - May 23			
Course ## Additional fees apply & are approximate/non-refundable	Credit	1st Choice	2nd Choice
##Biology & Conservation of Marine Turtles	(2)UG/G		
Dolphins and Whales	(2)∪G		
Shark and Ray Biology	(2)UG/G		
##Coastal Zone Management	(2)UG/G		
Coral Reef Session: April 1-May 23			
##Coral Reef Biology & Ecology	(4)UG/G		

First Session: May 26 - June 27

Lecture: M/T/W; (9am - 12pm)	Lab: M/T (1	lpm - 4pm)		
Course	Credit	1st Choice	2nd Choice	
Marine Biology	(4)UG/G			
Marine Botany	(4)UG/G			
Marine Geology	(4)UG/G			
Marine Mammals	(4)UG/G			
Marine Vertebrate Zoology	(4)UG/G			
Lecture and Lab: M/T (9am - 4pm	ı)			
Marine Restoration Ecology	(2)UG/G			
Hurricanes of the Gulf Coast	(2)UG/G			
Lecture: W (1pm - 4pm) TH/F (9am – 12pm) Lab: T/F (1pm - 4p)				
Coastal Wetlands Ecology	(4)UG/G			
Intro to Oceanography	(4)UG/G			
Experimental Plankton Biology	(4)UG/G			
Lecture: TH/F (9am - 4pm)				
	(2)UG/G			
Environ App. of GIS (online)	(2)UG/G			

It is important to list both first and second choices for courses whenever possible. This advisor sheet must be signed and uploaded to your Populi course registration. All courses are subject to change. It is important to list both first and second choices for courses whenever possible. This advisor sheet must be signed and uploaded to your Populi course registration. All courses are subject to change.

Second Session: June 30 – August 1				
Course		Credit	1st Choice	2nd Choice
Lecture: M/T/W; (9am - 12	2pm	n) Lab: M/T	(1pm - 4pn	n)
Marine Biology		(4)UG/G		
Marine Invert. Zoology		(4)UG/G		
Marine Conservation Biolo	gy	(4)UG/G		
Marine Behavioral Ecology		(4)UG/G		
Lecture and Lab: M/T (9ar	n -	4pm)		
Marine Aquaculture		(2)UG/G		
Lecture: W (1pm – 4pm) TH/F (9am - 12pm) Lab: TH/F (1pm - 4pm)				
Marine Ecology		(4)UG/G		
Marine Vertebrate Zoology	/	(4)UG/G		
Intro To Oceanography		(4) UG/G		
Lecture and Lab: TH/F (9am - 4pm)				
Marine Mammal Health		(2)UG		
Biotic Response to Sea Level Change (online)		(2)UG		
Neurobiology Session August 4 – August 15				
Intro. to Neurobiology		(3) UG/G		
Marine Biology Hybrid S	ies	sion June 3	0 – August	8
Marine Biology Hybrid		(4)UG/G		

Advisor Approval		
Total # credits registered for summer		
Priority Level (Level 1, 2, or 3)		
Date:		
Advisor's Signature		
Student's Signature		