

**THE UNIVERSITY OF SOUTHERN MISSISSIPPI**

**Division of Marine Science  
Onsite Stennis Graduate Courses  
Spring 2024**

|              |   |              |                   |
|--------------|---|--------------|-------------------|
| HYD 601      | Hydrographic Data Management  | Mondays      | 1:00pm – 3:45pm   |
| HYD 604      | Kinematic Positioning   | Tuesdays     | 9:30am – 12:15pm  |
| HYD 605      | Applied Bathymetry  | Mon / Wed    | 11:00am – 12:15pm |
| HYD 611      | Remote Sensing for Hydrographers  | Tuesdays     | 1:00pm – 3:45pm   |
| HYD 612      | Water Levels  | Mon / Wed    | 9:30am – 10:45am  |
| MAR 591/G001 | Special Topics in Marine Science: Scientific Writing                          | Mon / Wed    | 8:00am – 9:15am   |
| MAR 591/G002 | Special Topics in Marine Science:<br>Advanced Field Methods in Marine Science | Wednesdays   | 1:00pm – 3:45pm   |
| MAR 621      | Geological Oceanography   | Thursdays    | 9:30am – 12:15pm  |
| MAR 640      | Marine Chemistry  | Mon / Wed    | 9:30am – 10:45am  |
| MAR 665      | Oceanographic Data Analysis   | Tues / Thurs | 1:00pm – 2:15pm   |
| MAR 667      | Waves and Tides   | Tues / Thurs | 9:30am – 10:45am  |
| MAR 682      | Special Topics in Biological Oceanography:<br>Biological Statistics in R      | Mon / Wed    | 9:30am – 10:45am  |
| MAR 689      | Seminar in Marine Science   | Fridays      | 2:30pm – 3:30pm   |

## Course Descriptions

|                |  |                 |                         |
|----------------|--|-----------------|-------------------------|
| <b>HYD 601</b> | <b>Hydrographic Data Management</b><br>Instructor: Hiroji<br>(Section G001) Prerequisite(s): Permission of instructor. The methods of data acquisition and control, capture, processing, and analysis applied to construction of navigational charts.        | <b>Mondays</b>  | <b>1:00pm – 3:45pm</b>  |
| <b>HYD 604</b> | <b>Kinematic Positioning</b><br>Instructor: Oguntuase<br>(Section G001) Prerequisite(s): Permission of instructor. The use of satellites in geodesy, positioning, navigation, and altimetry demonstrated through classroom lectures and practical exercises. | <b>Tuesdays</b> | <b>9:30am – 12:15pm</b> |

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|---------------------|--|---------------------|--------------------------|
| <b>HYD 605</b>      | <b>Applied Bathymetry</b><br>Instructor: Oguntuase<br>(Section G001) Prerequisite(s): MAR 621 or MAR 668 or equivalent. An application of ocean acoustic and transducer principles to the methods of measuring and recording the shape of the sea bed.   | <b>Mon / Wed</b>    | <b>11:00am – 12:15pm</b> |
| <b>HYD 611</b>      | <b>Remote Sensing for Hydrographers</b><br>Instructor: Zhang<br>(Section G001) Prerequisite(s): Permission of instructor. Remote sensing principles and photogrammetry for coastline delineation, ice mapping, bathymetry, and water column and surface properties.                              | <b>Tuesdays</b>     | <b>1:00pm – 3:45pm</b>   |
| <b>HYD 612</b>      | <b>Water Levels</b><br>Instructor: Howden<br>(Section G001) Prerequisite(s): MAR 660 or permission of instructor. Theory and measurements of tidal and non-tidal water levels for hydrographic applications.   | <b>Mon / Wed</b>    | <b>9:30am – 10:45am</b>  |
| <b>MAR 591/G001</b> | <b>Special Topics in Marine Science: Scientific Writing</b><br>Instructor: Mojica<br>(Section G001) Prerequisite(s): Permission of instructor. Directed study in area for which no formal courses are offered.   | <b>Mon / Wed</b>    | <b>8:00am – 9:15am</b>   |
| <b>MAR 591/G002</b> | <b>Special Topics in Marine Science:<br/>Advanced Field Methods in Marine Science</b><br>Instructor: Hayes / Pederson<br>(Section G002) Prerequisite(s): Permission of instructor. Directed study in area for which no formal courses are offered.   | <b>Wednesdays</b>   | <b>1:00pm – 3:45pm</b>   |
| <b>MAR 621</b>      | <b>Geological Oceanography</b><br>Instructor: Wallace / Pederson<br>(Section G001) Study of the formation and deformation of the oceanic crust and the distribution and character of marine sediments.   | <b>Thursdays</b>    | <b>9:30am – 12:15pm</b>  |
| <b>MAR 640</b>      | <b>Marine Chemistry</b><br>Instructor: Hayes<br>(Section G001) Prerequisite(s): CHE 100, MAT 168 or permission of instructor. Sea water chemistry and cycles and their impact on the marine environment.   | <b>Mon / Wed</b>    | <b>9:30am – 10:45am</b>  |
| <b>MAR 665</b>      | <b>Oceanographic Data Analysis</b><br>Instructor: Wiggert<br>(Section G001) Prerequisite(s): MAR 660 or permission of instructor. Analysis techniques with applications to physical oceanographic time series data. Topics will include correlation, spectral, and principal component analysis. | <b>Tues / Thurs</b> | <b>1:00pm – 2:15pm</b>   |
| <b>MAR 667</b>      | <b>Waves and Tides</b><br>Instructor: Nechaev<br>(Section G001) Prerequisite(s): MAR 660 and permission of instructor. Wind-generated surface gravity waves, tide-generating forces, observing water levels, and numerical simulation of ocean tides.  | <b>Tues / Thurs</b> | <b>9:30am – 10:45am</b>  |

**MAR 682**      **Special Topics in Biological Oceanography:  
Biological Statistics in R**      **Mon / Wed**      **9:30am – 10:45am**  
Instructor: Mojica  
(Section G001) Prerequisite(s): Permission. Study of a selected area in biological marine science.  
May be repeated.

**MAR 689**      **Seminar in Marine Science**      **Fridays**      **2:30pm – 3:30pm**  
Instructor: Zhang  
(Section G001) Prerequisite(s): Permission of instructor. Current topics in marine science explored  
via student discussion and presentation. May be repeated.

# THE UNIVERSITY OF SOUTHERN MISSISSIPPI

## Registration Information

### Registration

Students interested in registering for a USM Division of Marine Science class should contact Dajaneir Thompson at 228.688.7097. Classes begin January 17<sup>th</sup>. For more information about the Division of Marine Science and the degree programs they offer, please see <https://www.usm.edu/ocean-science-engineering/index.php>

### Admissions

All students must be admitted to USM prior to registering for courses. For further information regarding graduate admission requirements, procedures, and deadlines, please see <https://www.usm.edu/graduate-admissions/index.php>.

Application materials for Marine Science should be obtained from the Division of Marine Science in Building 1020 (phone number: 228-688-7097).

### Non-Degree Seeking Students

Students that do not wish to pursue a degree may seek admission as a non-degree student. Applicants interested in applying for non-degree status can do so by submitting an online application, proof of undergraduate degree, and application fee. A prospective student may choose to enroll as a non-degree graduate student for the following reasons:

- The applicant did not meet requirements for regular or conditional admission.
- The applicant is not seeking a degree but wishes to take graduate courses for personal or professional development.
- The applicant is seeking a degree at another university and desires to obtain credit from The University of Southern Mississippi to be transferred to their degree program.
- The applicant did not meet the application deadline for a degree program.

Enrollment as a non-degree graduate student does not signify admission to any school or to any degree program. A non-degree graduate student must hold a baccalaureate degree from an accredited institution. Up to 12 hours of coursework taken at USM as a non-degree student may be applied to a graduate degree program with the approval of the graduate committee chair and/or graduate committee if the student is admitted later to a degree program. Non-degree coursework to be used in a degree program is subject to time limits. Non-degree graduate students are not eligible for financial aid.

### Tuition for Spring 2024

Please see <https://www.usm.edu/business-services/general-tuition-fees.php> for information regarding Spring 2024 graduate tuition and fees.

Information about Mississippi residency status can be found at <https://www.usm.edu/registrar/mississippi-residency.php>.

### Refund Schedule

|                       |                      |
|-----------------------|----------------------|
| 100% minus a \$30 fee | First 6 working days |
| 0%                    | After 6 working days |

See <https://www.usm.edu/business-services/withdrawals-and-tuition-credit> for more important refund information.

### Important Dates

|                          |   |
|--------------------------|---|
| January 17 <sup>th</sup> | Classes begin   |
| January 24 <sup>th</sup> | Last day to add/drop classes without academic or financial penalty and receive 100% tuition credit minus a \$30 fee |
| May 6 <sup>th</sup>      | Final exams begin   |