MSCI/GEOL 215L: COASTAL ENVIRONMENTS OF THE SOUTHEASTERN U.S. LABORATORY

Professor: Dr. Jean Ellis
Assistant Professor
Beach and Dune Processes Laboratory, CSSC 227
Email: jtellis@sc.edu

Lab meeting:
SECTION 1: WEDNESDAY 12:20 PM - 2:20 PM EWSC 104
SECTION 2: THURSDAY 10:15 AM - 12:15 PM EWSC 104

Lab Instructor: Jessica Price
EWSC 411b
Office Hours: Mondays and Wednesday 10:00–11:00
or by appointment
Email: jprice@geol.sc.edu

Course Objectives and Goals
This course examines important aspects of the coastal zone, such as tide analysis and prediction, wave’s dynamics, shoreline evolution, navigation, sediments characterization, and land use. From the point of view of the lab work, the coastal environments are presented as an interesting and fascinating space, full of possibilities of learning and knowledge sharing. Not available for marine science major credit.

Learning Outcome
Students will be able to describe verbally or in writing:

• about the coastal environment of the Southeastern U.S.;
• how coastal environments will change with tides, wave controlled processes and hurricanes;
• the fundamental principles of coastal erosion, movement of barrier islands, shifting of tidal deltas;
• at least one or two current issues facing the ocean/costal environment;
• the concept of how the coastal zone operates and learn to live;
• how wind and wave energy affects the coast environment of South Carolina;
• how wind movement creates waves and drives the surface circulation of the oceans; and
• apply the principles and language of the natural sciences and associated technologies to historical and contemporary issues.

Academic Responsibility
Faculty and students at USC are obligated to follow the USC Code of Academic Responsibility. It is expected that all class members demonstrate intellectual honesty and respect the academic rights of their classmates. If you have forgotten your responsibilities under this Code, please re-read Student Affairs Policy STAF 6.25 on USC’s web page. Even while working in groups, each person must do his/her own work!
Plagiarism will not be tolerated. If this occurs you will receive a zero for the assignment and the matter will be reported to the University authorities.

**Lab Manual:** Labs will be posted on Blackboard and each student will be expected to arrive with a printed copy to each lab class.

**Attendance:** Attendance is mandatory for all laboratory days including presentation preparation and student presentations. Absences will result in a zero. There will be no switching lab classes. Extenuating circumstances will be reviewed on a case-by-case basis and shall be discussed with the lab instructor.

**Lab Rules:** No food or drinks. No open-toed shoes (flip flops, sandals, etc). **There are no exceptions. If you are not prepared for the lab you will be asked to leave the lab.**

**Tentative Lab Schedule:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
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<tbody>
<tr>
<td>Jan. 16/17</td>
<td>Orientation</td>
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<tr>
<td>Jan. 23/24</td>
<td>Lab 1: Coastal Navigation</td>
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<td>Jan. 30/31</td>
<td>Lab 2: Tides</td>
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<tr>
<td>Feb. 6/7</td>
<td>Lab 3: Waves</td>
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<td>Feb. 13/14</td>
<td>Lab 4: Wind</td>
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<td>Feb. 20/21</td>
<td>Lab 5: Coastal Sediments</td>
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<td>Feb. 27/28</td>
<td>Lab 6: Grain Size/Settling Velocity</td>
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<tr>
<td>Mar. 6/7</td>
<td>Lab 7: Lagoons/Coastal Wetlands</td>
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<td>Mar. 13/14</td>
<td><strong>NO LAB - SPRING BREAK</strong></td>
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<tr>
<td>Mar. 20/21</td>
<td><strong>NO LAB</strong></td>
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<tr>
<td>Mar. 27/28</td>
<td>Lab 8: Anthropogenic Factors</td>
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<td>Apr. 3/4</td>
<td>Lab 9: Coastal Land Use Introduction</td>
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<tr>
<td>Apr. 10/11</td>
<td>Presentation preparation (attendance mandatory)</td>
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<tr>
<td>Apr. 17/18</td>
<td>Presentation preparation (attendance mandatory)</td>
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<tr>
<td>Apr. 24/25</td>
<td>Student presentations (attendance mandatory)</td>
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**Grading:**

- **Labs:** 9 labs each worth 90 points
- **Project:** Student project worth 200 points total

*Specific project information and project grade breakdown will be given to students.*

**Grading Scale:**

- **A** = 990 - 1100 points
- **B+** = 957 - < 990 points
- **B** = 880 - < 957 points
- **C+** = 847 - < 880 points
- **C** = 770 - < 847 points
- **D+** = 737 - < 770 points
- **D** = 660 - < 737 points
- **F** = < 660 points