COURSE SYLLABUS

GEOL 3330
OCEANOGRAPHY

3 SEMESTER CREDIT HOURS
Spring 2017

Professor: Jonathan Sumrall
(SHSU Tel: 41593)
(e-mail: karst@shsu.edu)
Course Syllabus:

GEOL 3330 Introduction to Oceanography

3 Semester Credit Hours
Spring 2017
Room: 318
Classes meet: T Th 12:30 - 1:50 pm
Professor: Jonathan Sumrall
Office: LDB 312
Tel: 41593
e-mail: karst@shsu.edu
Office Hours: T Th 10am -11 pm or by email appointment

Course Description: "A survey of the general principles of oceanography is made. The geology of ocean basins, tide-water processes and the chemistry of sea water are studied. Biophysics of the sea and environmental problems are considered. Credit 3"

Course Philosophy: GEOL 3330 is designed as an entry-level course for any student with an interest in Oceanography. The intent is to provide an interesting and stimulating course, with a high degree of student interaction. Students are expected to come to class prepared, to engage in discussion, and to challenge the instructor. The course will depart from the Syllabus to meet specific interests of the class. Cell phones must be off or on vibrate.

Methods: Lecture
Assessment: Lecture participation, 3 exams, oral presentation, and weekly homework assignments

Objectives:
- An understanding of the role the oceans play in larger geologic systems
- A critical understanding of ocean science
- A broad understanding of submarine sedimentation
- An encounter with calculations and concepts from a "first principle" perspective


Attendance:
All lectures are mandatory. Please note that all exams and other assignments will include questions that may make use of a large number of lecture slides. These slides will only be shown during lectures and many will not be duplicated in the textbook or on Blackboard. If you miss lectures, you will place yourself at a considerable disadvantage. The university requires each instructor to keep a record of student attendance. Attendance based on a sign-in sheet will be recorded at the beginning of each class period.

Six class periods of absence are allowed without penalty. Absences in excess of nine class periods will result in course failure.
An absence from a quiz or exam may be approved, dependent upon the merits of the case, and will only be approved in cases of the utmost emergency such as the death or injury of an immediate family member. In such cases, the onus is upon the student seeking the absence to show supporting evidence as to the nature of the emergency. A class average grade for the particular quiz or exam will be awarded.

Lecture Participation and Group Discussion:
Groups will be utilized to discuss selected sections of readings from the book to discuss in class. Lecture participation will involve group discussion and classroom discussion among groups. The formation for lecture participation will be an assigned amount of time to get material refreshed prior to meeting in groups, time to discuss the reading in small groups, and time to discuss the group topic with the class as a whole. Each group will be assigned different material from the reading, so these
discussions will augment lecture by the professor. Groups will be randomly assigned and rotated throughout the semester to allow students to work with new groups as much as possible. When discussion with the class as a whole occurs, each group may select a spokesperson or breakup the discussion among the group members.

**Assignments:**

**Homework Assignments**

Homework assignments are given each week, on Tuesday. The intent is that the student reads over the assignment and thinks about it before Thursday’s class, and asks general questions in that class. Then over the weekend, the student seriously attempts the problem, so that specific questions can be raised in Monday’s class. The assignment is turned in on the next Tuesday, and the following week’s assignment is given out. Even if a student has no questions, those raised by other students in class may be instructive. Experience shows that many students wait until Tuesday night to do the assignment; the data also show their grades are the lowest. Holidays and Instructor absence may alter the weekly schedule from time to time, such alterations will be announced. The first assignment will be handed out on the first day of class.

**Class Presentation**

Each student will be able to choose from a list of pre-approved topics for their presentation. The presentation will be a presentation and can take the form of a short (7 to 10 minute) presentation with a maximum of 10 PowerPoint slides. Presentation times will be announced later in the semester, and students will still be required to attend on days not presenting. Unexcused absence from other student presentations will result in points lost from the absentee’s grade. PowerPoint presentations are due the class period prior to presentation. Each presentation will be graded according to professional presentation of material, thoroughness when covering topics, and clarity of presentation. Students will grade others’ presentations using a rubric provided by the instructor.

**Final Exam**

Final Exam period is scheduled for Tuesday May 9th, 1-3pm.

**Workload:**

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Exam 1</td>
<td>20%</td>
</tr>
<tr>
<td>Exam 2</td>
<td>20%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>20%</td>
</tr>
<tr>
<td>Class Presentation</td>
<td>15%</td>
</tr>
<tr>
<td>Homework</td>
<td>15%</td>
</tr>
<tr>
<td>Lecture Participation</td>
<td>10%</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
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Final grades will be assigned based on student performance relative to the rest of the class, as determined by the course instructor.

**Due Dates and Timetables:**

I do not give makeup exams.

Any due assignments handed in after the due time/date and for which there is no **WRITTEN EXTENSION** will be penalized by -10% per day, down to zero.

Please note that I will only grant an extension to the following: personal communication, either face-to-face, by phone (not voice-mail), or by e-mail. If you use e-mail to request an extension, you must not assume that it will be automatically granted – it will only be granted if and when you get my e-mail reply.

**No Class: March 13-17**

**Academic Honesty:** Copying the homework of fellow students or past students, cheating on exams, passing the work of others off as their own, and similar acts will be punished by receiving the grade of "F" for the entire course. Group discussion of homework problems is permissible if in the end each student does the work **individually**.

**Americans with Disabilities Act:**

It is the policy of Sam Houston State University that no otherwise qualified individuals shall, solely by reason of their disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any academic program or activity. To that end, the University complies with the Americans with Disabilities Act of 1990, and has created Academic Policy
Statement 811006, “Disabled Student Policy”, located in the Student Section of the Academic Policy Manual. For information regarding resources and services available to students, please contact the ADA Coordinator in the Counseling Center.

**Classroom Rules and Conduct:**
University statement: Students are expected to assist in maintaining a classroom environment that is conducive to learning. Students will refrain from behavior in the classroom that intentionally or unintentionally disrupts the learning process and, thus, impedes the mission of the university. Cellular telephones must be turned off before class begins. Students are prohibited from eating or drinking in class, using tobacco products, making offensive remarks, reading newspapers, sleeping, talking at inappropriate times, wearing inappropriate clothing, or engaging in any other form of distraction. Inappropriate behavior in the classroom shall result in a directive to leave class. Students who are especially disruptive also may be reported to the Dean of Students for disciplinary action in accordance with university policy.

- Come to class on time – there is no reason to be late to class on a frequent basis. Habitual tardiness is unacceptable.
- Remain in class until it is finished. Leaving early will count as an absence unless you have cleared it with me or unless it is an emergency.
- You cannot leave the class during an exam unless there is a medical emergency
- If you arrive after the first person has left an exam or quiz, you will not be permitted to take the exam. (note: makeup exams are not given).
- During lectures and tests, cell phones and any other equipment capable of receiving, recording, and/or transmitting information must be put away in a book bag or purse. (In short, it must not be readily accessible or accessed during class).

**Course Content:** See following outline.

<table>
<thead>
<tr>
<th>Chapters in Text</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Origins</td>
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<td>2</td>
<td>History of Ocean Science</td>
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<tr>
<td>3</td>
<td>Earth Structure and Plate Tectonics</td>
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<td>4</td>
<td>Ocean Basins</td>
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<td>5, 6 &amp; 7</td>
<td>Ocean Contents: Sediments and the Water</td>
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<tr>
<td>8 &amp; 9</td>
<td>Circulation: Air and Sea</td>
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<td>10 &amp; 11</td>
<td>Ocean Motion</td>
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<td>12</td>
<td>The Coastal Ocean: Margins and Gradients</td>
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<td>13</td>
<td>The Marine Environment</td>
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<td>14</td>
<td>Marine Productivity</td>
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<td>15</td>
<td>Marine Vertebrates and Invertebrates</td>
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<td>16</td>
<td>Marine Ecosystems and Communities</td>
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<tr>
<td>17</td>
<td>Exploiting the Ocean: The Reward</td>
</tr>
<tr>
<td>18</td>
<td>Exploiting the Ocean: The Price</td>
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