ESCI 5340 and CMSS6340: Ocean Resources
Department of Physical & Environmental Sciences
Fall Semester 2017

A. COURSE INFORMATION

Course number/section: ESCI 5340.001 and CMSS6340.001
Class meeting time: Monday 4:20-6:50p
Class location: IH 268
Course Website: [Blackboard website to be added]

B. INSTRUCTOR INFORMATION

Instructor: Dr. Kateryna Wowk
Office location: HRI 210B
Office hours: M 2:30-4:00, W 1:30-3:30, and by appointment
Telephone: 361.825.2030
e-mail: katya.wowk@tamucc.edu
Appointments: To schedule an appointment contact me by email or phone

C. COURSE DESCRIPTION

Catalog Course Description
Investigation of topics related to the discovery, distribution, and exploitation of ocean and coastal resources with a focus on the Gulf of Mexico, including the impact of resource exploitation on biological systems, human systems, and the development of marine policy.

Extended Course Description
Our ocean, provider of food, oxygen, even medicine for millennia, is no longer the unchangeable body it was once thought to be. Ocean and coastal areas are heavily affected by human activities, from overfishing to waste runoff to mineral extraction, destroying habitats and irrevocably changing ecosystems. National governments and international organizations are working to strengthen and integrate their efforts and policies toward sustainability to retain the viability of marine ecosystems and resources, but they face many challenges. This course will examine the status of key ocean resources we rely on, the challenges to their sustainable management and use, and potential pathways into the future.

D. PREREQUISITES AND COREQUISITES

Prerequisites: None
Corequisites: None

E. REQUIRED TEXTBOOK(S), READINGS AND SUPPLIES

Required Textbook:
**Other References:**

**Supplies:** None

**F. STUDENT LEARNING OUTCOMES AND ASSESSMENT**
Assessment is a process used by instructors to help improve learning. Assessment is essential for effective learning because it provides feedback to both students and instructors. A critical step in this process is making clear the course’s student learning outcomes that describe what students are expected to learn to be successful in the course. The student learning outcomes for this course are listed below. By collecting data and sharing it with students on how well they are accomplishing these learning outcomes students can more efficiently and effectively focus their learning efforts. This information can also help instructors identify challenging areas for students and adjust their teaching approach to facilitate learning.

By the end of this course, students should be able to:

1. Understand oceans and coasts as holistic systems at varying scales, including by identifying coastal and ocean resources that support human well-being.
2. Analyze principles for the distribution of marine resources and multiple use management of the coastal zone.
3. Understand complex management challenges and evaluate the effectiveness of policies that govern exploitation of resources, and protect the communities that rely on them.
4. Succinctly communicate analysis and evaluation results in a decision-making context.
5. Synthesize current and future ocean and coastal resource issues in the Gulf of Mexico.

**G. INSTRUCTIONAL METHODS AND ACTIVITIES**
Traditional lectures via board demonstrations and power point presentations, student questions and classroom discussions, and student reading, policy memo and paper.

**Homework** will consist of assigned readings and critical analysis of primary literature. Each student is responsible for contributing at least 2 questions about the readings to an online forum no later than 24hrs before the scheduled class. Each student also will be expected to lead a class discussion at least once in the semester.
Class will begin with Dr. Wowk providing a general overview of the topic. Depending on the class, one or two assigned students will act as Discussion Leads to provide an overview of the assigned readings (15mins) and then will lead open class analysis of the readings and discussion in collectively answering the set of questions relevant to each class. All students will participate in the discussion. Discussion Leads will pick from assigned readings for that week and lead the class through the work by summarizing important points and posing their questions to start discussions, followed by other questions posed by additional students.

Mid-Term exercise will craft a “policy memo” on an ocean resource issue relevant to the class/readings. In consultation with professor, by Week 3 each student will choose a topic to more deeply investigate. Students will assess the issue in the topic, potential solutions and provide recommendations in a policy memo to a fictitious decision-maker. Students will then present their findings in a 5-10min “elevator speech” to the decision-maker during Weeks 8 & 9 (additional guidance will be provided), followed by a brief class critique. Because references are typically not included in policy memos, each student also will submit an annotated bibliography.

Final paper (10-15 double-spaced pages) will use the bibliography to develop a scientific assessment of the mid-term topic and a revised policy memo (not included in pg. count) that addresses comments from the professor and reflects any new ideas and recommendations.

Final exam will focus on three essay questions, drawn from the literature and coursework, that will demonstrate students’ critical thinking skills in understanding key principles and concepts on ocean and coastal resource management, including how those principles and concepts are or might be applied in policy toward enhanced sustainability.

H. MAJOR COURSE REQUIREMENTS AND GRADING

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Overall Grade Percentage</th>
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<tbody>
<tr>
<td>Class readings, questions and participation</td>
<td>30%</td>
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<tr>
<td>Discussion lead</td>
<td>10%</td>
</tr>
<tr>
<td>Mid-Term exercise</td>
<td>20%</td>
</tr>
<tr>
<td>Final paper</td>
<td>25%</td>
</tr>
<tr>
<td>Final exam</td>
<td>15%</td>
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<tr>
<td>Total:</td>
<td>100%</td>
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I. COURSE CONTENT/SCHEDULE
<table>
<thead>
<tr>
<th>DATE (BY DAY OR WEEK)</th>
<th>TOPIC</th>
<th>CHAPTER(S)</th>
<th>ASSIGNMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 28</td>
<td>Introduction to Global Ocean and Coastal Resources</td>
<td>Chapter 1</td>
<td>Read</td>
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<tr>
<td>September 4</td>
<td>Holiday</td>
<td></td>
<td></td>
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</tbody>
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| September 11          | Institutions, Policy and Natural Resource Management | - Chapter 2
- Walker/Salt | Read, questions, discuss |
| September 18          | Ocean and Coasts as Resilient, Socio-Ecological Systems | Chapters 3&4 | Read, questions, discuss |
| September 25          | *Virtual Lecture*: Rights, Ownership and the Commons | Chapter 5 | Read, questions, online response to questions |
| October 2             | Addressing Complexity: Adaptive Co-Management | - Chapter 6
- Bohm | Read, questions, discuss |
| October 9             | Beyond Integrated Management: Multiple Coastal Uses | Chapter 7 | Read, questions, discuss |
| October 16            | Safeguarding Resources: Biodiversity Conservation | Chapter 8 | Read, questions, discuss |
| October 23            | Mid-term exercise | NA | Policy memo, critique |
| October 30            | Mid-term exercise | NA | Policy memo, critique |
| November 6            | *Guest Lecture*: Safeguarding Ocean and Coastal Livelihoods - Participatory Governance | Chapter 9 | Read, questions, discuss |
| November 13           | Integrating Local and Traditional Knowledge | Chapter 10 | Read, questions, discuss |
| November 15           | Last Day to Drop Class | | |
| November 20           | Managing Socio-Ecological Systems | – Chapter 11
Berkes 2007 | Read, questions, discuss |
| November 23-24        | Holiday | | |
| November 27           | Future Challenges and Solutions to Ocean Resources in the Gulf of Mexico | – Chapter 12
1. Amel et al. 2017 | Read, questions, discuss |
| December 4            | Final paper due and exam review | 1.NA | Assessment, memo |
| December 11           | Final exam | 2.NA | Week 1-13 work |

Note: Changes in this course schedule may be necessary and will be announced to the class by the Instructor. The assignments and exams shown are directly related to the Student Learning Outcomes described in Section F.

**J. COURSE POLICIES**

*Participation* is a critical part of this course. Students are expected to come prepared to every class for discussion.
K. COLLEGE AND UNIVERSITY POLICIES

- **Academic Integrity (University)**
  University students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, falsification, forgery, complicity or plagiarism. (Plagiarism is the presentation of the work of another as one’s own work.) In this class, academic misconduct or complicity in an act of academic misconduct on an assignment or test will result in a failing grade.

- **Classroom/Professional Behavior**
  Texas A&M University-Corpus Christi, as an academic community, requires that each individual respect the needs of others to study and learn in a peaceful atmosphere. Under Article III of the Student Code of Conduct, classroom behavior that interferes with either (a) the instructor’s ability to conduct the class or (b) the ability of other students to profit from the instructional program may be considered a breach of the peace and is subject to disciplinary sanction outlined in article VII of the Student Code of Conduct. Students engaging in unacceptable behavior may be instructed to leave the classroom. This prohibition applies to all instructional forums, including classrooms, electronic classrooms, labs, discussion groups, field trips, etc.

- **Statement of Civility**
  Texas A&M University-Corpus Christi has a diverse student population that represents the population of the state. Our goal is to provide you with a high quality educational experience that is free from repression. You are responsible for following the rules of the University, city, state and federal government. We expect that you will behave in a manner that is dignified, respectful and courteous to all people, regardless of sex, ethnic/racial origin, religious background, sexual orientation or disability. Behaviors that infringe on the rights of another individual will not be tolerated.

- **Deadline for Dropping a Course with a Grade of W (University)**
  I hope that you never find it necessary to drop this or any other class. However, events can sometimes occur that make dropping a course necessary or wise. Please consult with your academic advisor, the Financial Aid Office, and me, before you decide to drop this course. Should dropping the course be the best course of action, you must initiate the process to drop the course by going to the Student Services Center and filling out a course drop form. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. Please consult the Academic Calendar (http://www.tamucc.edu/academics/calendar/) for the last day to drop a course.

- **Grade Appeals (College of Science and Engineering)**
  As stated in University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details,
including the responsibilities of the parties involved in the process and the number of
days allowed for completing the steps in the process, see University Procedure
13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible
through the University Rules website at
http://www.tamucc.edu/provost/university_rules/index.html, and the College of Science
and Engineering Grade Appeals webpage at
http://sci.tamucc.edu/students/GradeAppeal.html. For assistance and/or guidance in the
grade appeal process, students may contact the chair or director of the appropriate
department or school, the Office of the College of Science and Engineering Dean, or the
Office of the Provost.

- **Disability Services**
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that
provides comprehensive civil rights protection for persons with disabilities. Among other
things, this legislation requires that all students with disabilities be guaranteed a learning
environment that provides for reasonable accommodation of their disabilities. If you
believe you have a disability requiring an accommodation, please call (361) 825-5816 or
visit Disability Services in Corpus Christi Hall 116.
If you are a returning veteran and are experiencing cognitive and/or physical access
issues in the classroom or on campus, please contact the Disability Services office
for assistance at (361) 825-5816. http://disabilityservices.tamucc.edu/

- **Statement of Academic Continuity**
In the event of an unforeseen adverse event, such as a major hurricane and classes
could not be held on the campus of Texas A&M University–Corpus Christi; this course would continue through the use of Blackboard and/or email. In addition, the syllabus and class activities may be modified to allow continuation of the course. Ideally, University facilities (i.e., emails, web sites, and Blackboard) will be operational within two days of the closing of the physical campus. However, students need to make certain that the course instructor has a primary and a secondary means of contacting each student.

L. **OTHER INFORMATION**

- **Academic Advising**
The College of Science & Engineering requires that students meet with an Academic
Advisor as soon as they are ready to declare a major. The Academic Advisor will set
up a degree plan, which must be signed by the student, a faculty mentor, and the
department chair. Meetings are by appointment only; advisors do not take walk-ins.
Please call or stop by the Advising Center to check availability and schedule an
appointment. The College’s Academic Advising Center is located in Center for
Instruction 350 or can be reached at (361) 825-3928.

**GENERAL DISCLAIMER**
I reserve the right to modify the information, schedule, assignments, deadlines, and course
policies in this syllabus if and when necessary. I will announce such changes in a timely
manner during regularly scheduled lecture periods.