Issues in Environmental Science (ESCI 4202.002)
Department of Physical and Environmental Science
Fall 2019

A. COURSE INFORMATION

Course number/section: ESCI 4202.002 (CRN 12815)
Class meeting time: MW 5:30pm – 6:20 pm
Class location: CCS 108
Course Website: bb9.tamucc.edu

B. INSTRUCTOR INFORMATION

Instructor: Dr. John S. Wood
Office location: CS 130A
Office hours: M-W 11:30 am - 2:00 pm, T 3:00 pm – 4:30 pm
Telephone: 825-4185
e-mail: john.wood@tamucc.edu
Appointments: Contact via email or phone to schedule an appointment. Additional hours available by appointment.

C. COURSE DESCRIPTION

Catalog Course Description
Exploration of major issues in environmental science posing past, present, and future challenges. Selected readings, student presentation, and papers.

Extended Course Description
This course is intended to improve your environmental literacy and familiarity with important environmental issues. There will be a large focus on interpretation, discussion, and presentation of ideas from environmental literature, especially primary literature. Course studies will also be used to familiarize with environmental issues. Topics may vary depending on current events, but examples include air and water pollution, water supply, climate change, ocean acidification, environmental management, energy resources, etc.

After taking this course, students should be able to discuss and express their scientifically-based opinions on a variety of contemporary topics.

D. PREREQUISITES AND COREQUISITES

Prerequisites
Juniors/seniors only and ESCI 1401 - Environmental Science I: Intro to Environmental Science or permission of instructor.

Corequisites
None
E. **REQUIRED TEXTBOOK(S), READINGS AND SUPPLIES**

**Required Textbook(s)**


**Scientific Journal Articles:**
Throughout the semester, students will be required to read certain peer-reviewed journal articles, which will be made available through the class Blackboard site. In addition, students may be required to find, read and submit additional papers throughout the semester.

**Supplies:**
Students are encouraged to bring laptops or tablets to take notes and research topics, as long as doing so does not disrupt the class or keep the student from participating in the class discussions. Please do not do coursework for other classes during this class.

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. Describe the drivers and consequences of a multitude of environmental issues affecting society on global and regional scales.
2. Critically assess scientific literature about environmental issues.
3. Intelligently communicate the importance of environmental issues with the scientific community, specific stakeholders, and the general public via written and oral avenues.
4. Make connections between humans, their behaviors, and environmental issues.
5. Recommend and personally employ human action for solutions to environmental issues.

G. **INSTRUCTIONAL METHODS AND ACTIVITIES**

This course will use a variety of instructional methods including assigned readings, PowerPoint lecture presentations by the instructor, online videos, interactive case studies, literature discussions, and group projects. Active student participation in class discussions is essential for this class, and will contribute substantially to the final grade.

H. **MAJOR COURSE REQUIREMENTS AND GRADING**

The student learning outcomes will be measured by student performance in written assignments, their verbal presentation of topics and literature to the class, and participation in class discussions and activities.
**Leading Group Discussion**- (15%) Each student will be required to lead the class discussion on an assigned paper one time in the semester. Because we have more students than paper discussions, each paper will have multiple discussion leaders (the Discussion Leader Team). While all students are responsible for reading the assigned paper, the discussion leaders must come prepared to extend the discussion throughout the entire class period. **Discussion leaders should each look up one additional paper that is related to the assigned paper so that they may summarize the findings of an additional paper to provide the class with a broader exposure to the topic.** The discussion should cover important topics in the paper, thoughts about the methods and findings, and the practical application of the research as it relates to the topics that we are covering in class.

**Written Assignments**- (30%) - Students will be required to write literature summaries for several of the assigned readings. Literature summaries (other than on *Silent Spring*) are due 24 hours prior to class that the paper will be discussed. Formatting requirements for literature summaries will be published on the class’s Blackboard site. Cover pages are never required or counted on page counts. No outside references or reference page will be required for summaries.

- All students must complete a 3-page literature summary of *Silent Spring* (10%).
- All students must provide a written 2-page summary of their assigned topic paper (10%). One summary is required for each team member.
- Students are required to write an additional 1-page literature summary (10%) for a provided discussion paper of their choice (Students may NOT choose the topic that they are leading discussion on).

**Group Presentation**- (15%) Presentations will be done in groups on a chosen environmental issue. Groups should be formed and the topic should be emailed to the instructor for approval by September 9th. Presentations should be 12 minutes in length with time for an additional 3 minutes of questions from the audience. Presentations may be formatted as if you are presenting to either the general public or a specific group of stakeholders in the issue. Each group member must participate in the presentation. No videos. Presentation should be submitted 24 hours early.

**Term Paper**- (10%) Students will individually complete term papers that are on the topic that their group presentation will cover. This paper should be directed to the scientific community.
The paper should cover the detailed background of the environmental issue, where it is occurring, who it is affecting, and your proposed plan for alleviating the negative effects. Peer reviewed journal sources must be cited in proper (revised) APA format - this forces you to find background information for your presentation in advance! The final draft is due **November 4th**. After the papers have been submitted, group members may wish to compile their sources to make an effective final presentation. Papers should be 5-8 pages in length, including an APA ‘References’ page.

## I. COURSE CONTENT/SCHEDULE

<table>
<thead>
<tr>
<th>DATE</th>
<th>TOPIC</th>
<th>READING(S)</th>
<th>ASSIGNMENTS</th>
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<tbody>
<tr>
<td>8/27</td>
<td>Introduction to Course Pesticide Use (Case Study)</td>
<td>Silent Spring 1-9 Provided paper</td>
<td>Literature summaries are due prior to class on the day that the paper will be discussed</td>
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<td>8/29</td>
<td>Silent Spring Discussion</td>
<td>Silent Spring Chapters 10-13</td>
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<td>9/2</td>
<td>Labor Day! No Class!</td>
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<td>9/4</td>
<td>Final Silent Spring Discussion</td>
<td>Silent Spring Chapters 14-17</td>
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<td>9/9</td>
<td>Silent Spring Video Discussion</td>
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<td>9/11</td>
<td>Water Pollution – Eutrophication (Lead Discussion #1)</td>
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<td>9/16</td>
<td>Water Supply (Case Study) Water Supply (Lead Discussion #2)</td>
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<td>9/18</td>
<td>Climate Change Basics (Lecture) Climate Change (Lead Discussion #3)</td>
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<td>9/23</td>
<td>Climate Change Natural Weather Events (Lead Discussion #4)</td>
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<td>9/25</td>
<td>Climate Change – Ocean Acidification (Lead Discussion #5)</td>
<td>Silent Spring Lit. Summary Due</td>
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<td>9/30</td>
<td>Climate Change – Sea Level Rise (Lead Discussion #6)</td>
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<td>10/2</td>
<td>Wetland Loss (Lead Discussion #7)</td>
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<td>10/7</td>
<td>Energy Resources (Lead Discussion #8)</td>
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<td>10/9</td>
<td>Ecosystem-Based Management (Lead Discussion #9)</td>
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<td>10/14</td>
<td>Recycling Methods (Lead Discussion #10)</td>
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<td>10/16</td>
<td>Does Recycling Work? Why or Why Not? (Lead Discussion #11)</td>
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<td>10/21</td>
<td>Illegal Fishing (Lead Discussion #12)</td>
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<td>10/23</td>
<td>Invasive Plants (Lead Discussion #13)</td>
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<td>10/28</td>
<td>Deer Breeding in Texas (Lead Discussion #14)</td>
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<td>10/30</td>
<td>Biodiversity vs. Endangered Species (Lead Discussion #15)</td>
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<td>11/4</td>
<td>Deforestation (Lead Discussion #16)</td>
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<td>11/6</td>
<td>Julianna vs. U. S (Lead Discussion #17)</td>
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<td>Term Paper Due</td>
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<td>11/11</td>
<td>Clean Air (Lead Discussion #18)</td>
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<td>Last Day to Drop a Class, November 9th</td>
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<td>11/13</td>
<td>Hazardous Algae Blooms (Lead Discussion #19)</td>
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<td>11/18</td>
<td>Resource Depletion (Lead Discussion #20)</td>
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<td>11/20</td>
<td>Fracking (Lead Discussion #21)</td>
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<td>11/25</td>
<td>Global Illegal Mining (Lead Discussion #22)</td>
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<td>11/27</td>
<td><strong>Reading Day! No Classes</strong></td>
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<td>12/2</td>
<td>Student Group Presentations</td>
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<td>12/4</td>
<td>Student Group Presentations</td>
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<td>Last Day of Classes!</td>
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<td>12/5</td>
<td><strong>Reading Day! No Classes</strong></td>
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<td>12/2</td>
<td><strong>Final Exam</strong></td>
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<td><strong>Monday December 9th, 4:30 – 7:00 pm</strong></td>
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**Note:** Changes in this course schedule may be necessary and will be announced to the class by the Instructor. The assignments shown are directly related to the Student Learning Outcomes described in Section F.
J. COURSE POLICIES

Attendance/Tardiness
Attendance is required and makes up a substantial portion of your grade in this course. Any absence without a valid, reported excuse will result in the deduction of 5% of your total grade. Excessive tardiness may also result in deduction of attendance points at the discretion of the instructor. Please notify of excused absences in advance, if at all possible.

Late Work and Make-up Exams
There will be no exams. Written assignments are due at the beginning of class on the date announced. For every day that assignments are late, there will be a 20% reduction in the possible score. An assignment that is 5+ days late will not receive credit. Please discuss extenuating circumstances in advance if at all possible, as leniency may be granted at the discretion of the instructor.

Extra Credit
Extra credit opportunities may be offered to the entire class at the discretion of the instructor. These extra credit opportunities will often require visits to the ‘Writing Center’ and other resources available on campus. No extra credit will be offered or accepted after Thanksgiving. No late submissions for Extra Credit.

Cell Phone Use
Cell phones should not be used during class. In case of emergency, please leave the room. Repeated distractions and lack of attention due to cell phone use in class will result in a deduction of class participation points at the discretion of the instructor.

Laptop Use
Laptop use in class is encouraged for note taking and reference to the PowerPoint and articles that are being discussed. Laptop use should only be for the use of class materials, and laptop use that distracts the student from the class may result in a deduction of class participation points at the discretion of the instructor.

Food in Class
Food is allowed in class as long as it does not cause distraction to other students. Clean up after yourself.

Blackboard
Blackboard will be used extensively in this class. The student is responsible for making sure that submissions are made timely, and that Blackboard accepts and show the assignment. Grades will be managed in Blackboard; please check them often. All submissions should be in ‘MS Word’ format except journal article submissions should be in PDF format.

Participation
Participation in classroom discussion and activities is essential to achieving the learning outcomes of this course and therefore will make up a substantial portion of the student’s grade and responsibility (15%). Every student is expected to contribute to all class discussions and case study activities, and will be monitored by the instructor. A deduction of 5% of the total grade will occur for each day that the student is not actively participating. Note that a negative participation grade is possible.
Appointments
Please avoid ‘ambushing’ the professor before or after class. You will like the outcome of just about everything better if you make an appointment or send an e-mail to my school e-mail account. I cannot maintain confidentiality in the classroom setting in front of other students.

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](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](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.

  Returning veterans 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/](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.