Introduction to Environmental Science ESCI 1401
Department of Physical and Environmental Sciences
Fall 2017

A. COURSE INFORMATION

Course number/section: ESCI 1401.002 (CRN 41478)
Class meeting time: Lecture TR 12:30-01:45pm
Lab meeting time: Lab meets once weekly as follows:
   ESCI 1401.101  M 09:00-10:50 am
   ESCI 1401.102  M 11:00 am-12:50 pm
   ESCI 1401.103  M 01:00-2:55 pm
   ESCI 1401.104  M 03:00-4:55 pm
   ESCI 1401.105  T 09:00-10:50 am
   ESCI 1401.106  T 02:00-3:50 pm
   ESCI 1401.107  W 09:00-10:50 am
   ESCI 1401.108  W 11:00 am-12:50 pm
   ESCI 1401.109  W 01:00-2:50 pm
   ESCI 1401.110  W 03:00-4:55 pm
   ESCI 1401.111  R 09:00-10:50 am

Class / Lab location: Lecture in BH 104; all labs in CI 214
Course Website: http://Bb9.tamucc.edu (lecture and labs have separate websites)

B. INSTRUCTOR INFORMATION

Instructor: Dr. John S. Wood
Office location: TBA
Office hours: T-R 10:00 – 11:30 AM
Telephone: 361-548-2528
E-mail: John.Wood@tamucc.edu
Appointments: Contact via email or phone to schedule an appointment. Additional hours available by appointment.
Lab instructors: Graduate Teaching Assistants serve as lab instructors; their contact information will be posted via Blackboard on the lab website.

C. COURSE DESCRIPTION

Catalog Course Description
ESCI 1401 - Environmental Science I: Intro to Environmental Science. 4 sem. hrs. (3:2)
TCCNS Equivalent: ENVR 1401. Principles of the scientific method and critical thinking provide a foundation for subsequent consideration of environmental issues through a multidisciplinary approach. Laboratory exercises and local field experiences reinforce concepts introduced in the lectures. This course counts toward the natural science component of the University Core Curriculum. Safety training given during a laboratory meeting early in the semester is required for continued participation in this course. Fall, Spring.

Extended Course Description
Principles of the scientific method and critical thinking provide a foundation for subsequent consideration of environmental issues through a multidisciplinary approach. Laboratories exercises and local field experiences reinforce concepts introduced in the lectures. This course counts toward the natural science component of the University Core Curriculum.

Topics include environmental systems, species relationships, communities, human populations, biomes and biodiversity, environmental conservation, food and agriculture, environmental health and toxicology, climate, air pollution, water resources, environmental geology and earth resources, energy, solid and hazardous waste, economics and urbanization, environmental policy and sustainability, and how individuals may promote environmental sustainability through conscious lifestyle and career choices.

D. PREREQUISITES AND COREQUISITES

Prerequisite/ Corequisite course required – SMTE 0096 Environmental Science Lab Safety Seminar

E. REQUIRED TEXTBOOK(S), READINGS AND SUPPLIES


Optional Textbook(s) or Other References: None.

Supplies: (Lecture) One trifold posterboard/student team for Green Campus team project, shared between team members. (Lab) Calculator and camera useful for many labs (most cell phones have both).

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. Recognize, describe and quantitatively evaluate the natural world and the interactions between physical and biological processes;
2. Understand the role humans play in shaping the physical and biological environment;
3. Acquire a scientific vocabulary and critical thinking skills related to environmental science;
4. Gain hands-on experience in measuring and observing various aspects of the environment.
5. Present data in a scientific format and evaluate and discuss the data scientifically.
G. INSTRUCTIONAL METHODS AND ACTIVITIES

Instructional methods include interactive lectures and weekly labs.

H. MAJOR COURSE REQUIREMENTS AND GRADING

The student learning outcomes described in Section F will be measured through the assignments listed below. Lecture activities are worth 60% and lab activities are worth 40% of the course grade. Limited extra credit opportunities will be made available.

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>POINTS</th>
<th>% of FINAL GRADE</th>
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<tbody>
<tr>
<td>3 Lecture exams (worth 10%, 15% and 15% respectively)</td>
<td>100 + 150 + 150 = 400 pts</td>
<td>40%</td>
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<tr>
<td>8 Lecture Pop Quizzes</td>
<td>12.5 pts each x 8 = 100 pts</td>
<td>10%</td>
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<tr>
<td>Green Campus Team Project</td>
<td>100</td>
<td>10%</td>
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<tr>
<td>3 Formal Lab Reports</td>
<td>75 pts each x 3 = 225 pts</td>
<td>22.5%</td>
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<tr>
<td>5 In-Class Lab Write-Ups</td>
<td>20 pts each x 5 = 100 pts</td>
<td>10%</td>
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<tr>
<td>7 Lab Quizzes</td>
<td>10 pts each x 7 = 70 pts</td>
<td>7%</td>
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<tr>
<td>Lab Participation</td>
<td>5 pts</td>
<td>0.5%</td>
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<tr>
<td>TOTAL</td>
<td>1000 pts</td>
<td>100%</td>
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I. COURSE CONTENT/SCHEDULE

LECTURE SCHEDULE

<table>
<thead>
<tr>
<th>WEEK</th>
<th>DATE</th>
<th>LECTURE TOPIC</th>
<th>TEXTBOOK CHAPTER</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>T. 9/05</td>
<td>Class orientation. Understanding Our Environment</td>
<td>1</td>
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<tr>
<td></td>
<td>R. 9/07</td>
<td>Environmental Systems: Matter and Energy and Life</td>
<td>2</td>
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<tr>
<td>2</td>
<td>T. 9/12</td>
<td>Continue. CHECK-IN Extra Credit Due Today.</td>
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<tr>
<td></td>
<td>R. 9/14</td>
<td>Evolution, Species Interactions, and Biological Communities</td>
<td>3</td>
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<tr>
<td>3</td>
<td>T. 9/19</td>
<td>Human Populations.</td>
<td>4</td>
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<td></td>
<td>R. 9/21</td>
<td>Continued.</td>
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<tr>
<td>4</td>
<td>T. 9/26</td>
<td>Biomes and Biodiversity</td>
<td>5</td>
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<tr>
<td></td>
<td>R. 9/28</td>
<td>Continued</td>
<td></td>
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<tr>
<td>5</td>
<td>T. 10/03</td>
<td>Lecture Exam 1</td>
<td>Ch. 1-5</td>
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<tr>
<td></td>
<td>R. 10/05</td>
<td>Environmental Conservation: Forests, Grasslands, Parks, and Nature Preserves</td>
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<tr>
<td>WEEK</td>
<td>DATE</td>
<td>LECTURE TOPIC</td>
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<td>6</td>
<td>T. 10/10</td>
<td>Food and Agriculture</td>
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<td></td>
<td>R. 10/12</td>
<td>Environmental Health and Toxicology</td>
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<td>7</td>
<td>T. 10/17</td>
<td>Climate</td>
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<td></td>
<td>R. 10/19</td>
<td>Continued</td>
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<td>8</td>
<td>T. 10/24</td>
<td>Air Pollution</td>
<td></td>
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<td></td>
<td>R. 10/26</td>
<td>Continued</td>
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<td>9</td>
<td>T. 10/31</td>
<td><strong>Lecture Exam 2</strong></td>
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<td></td>
<td>R. 11/02</td>
<td>Water: Resources and Pollution</td>
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<td>10</td>
<td>T. 11/07</td>
<td>Continue</td>
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<td></td>
<td>R. 11/09</td>
<td>Environmental Geology and Earth Resources</td>
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<td>11</td>
<td>T. 11/14</td>
<td>Energy</td>
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<td></td>
<td>R. 11/16</td>
<td><strong>Green Campus Team Project Poster Fair</strong></td>
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<td>12</td>
<td>T. 11/21</td>
<td>Solid and Hazardous Waste</td>
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<td></td>
<td>R. 11/23</td>
<td><strong>NO CLASS: THANKSGIVING</strong></td>
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<td>13</td>
<td>T. 11/28</td>
<td>Economics and Urbanization</td>
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<td></td>
<td>R. 11/30</td>
<td>Environmental Policy and Sustainability</td>
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<td>14</td>
<td>T. 12/5</td>
<td>Last day of classes. Continued.</td>
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<td>R. 12/7</td>
<td><strong>NO CLASSES: READING DAY</strong></td>
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<td>R. 12/14</td>
<td>11 am: Final Exam - Lecture Exam 3</td>
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**LAB SCHEDULE**
Consult your lab website on Blackboard before each lab for additional pertinent information. The first lab activity will be introduced on a Monday, and will be taught for the last time at the last lab meeting of that same week.
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

Attendance/Tardiness

Lecture Attendance: Regular attendance in lecture is expected to help you fully understand the lecture material. If you cannot attend a lecture meeting you should email the instructor beforehand or as soon as possible afterwards to determine if missed work can be made up.

Lab Attendance: Lab attendance is mandatory. If you don’t come to the lab, you cannot collect data for lab reports or participate in in-class exercises. If you must miss your own lab section in any week, you should attend another lab section in that same week to make up the missed work. Inform your lab instructor and the lab instructor for the section you are visiting, ahead of time if possible. If you have an excused absence but could not attend another lab section that week, contact the lab instructor as soon as possible to discuss the matter. There are no opportunities to make up a missed lab activity after the week has passed.

Tardiness: Students are expected to arrive on time to lecture and lab. Many lab activities are conducted in the field, so students arriving late to lab may find the rest of the group has already departed for the field and thus may miss the lab activity altogether.

Late Work and Make-up Exams

Work is due by the stated deadlines. The grade for late work will be reduced by up to 20% for each day it is late. Exams may be made up only in cases of an excused absence and students should contact the instructor in advance to make prior arrangement if possible.

There will be NO make-up exams offered (with VERY FEW exceptions, and only with advance notice). Students with university approved scheduled absences (athletics, military duty, etc.) MUST contact the professor well in advance of the scheduled absence to make arrangements to take the exam early. In case of serious illness, injury, or emergency the student should provide documentation (note from the doctor, etc.) to prove the severity of the reason for their absence and work with the instructor to make up the exam.

Extra Credit

A limited amount of extra credit will be available. All extra credit must be turned in through Blackboard, and be ON TIME! Any extra credit assignment will be available to all class members. There will be no extra credit assignments available after Thanksgiving break.

Cell Phone Use
The instructor does not prohibit, but discourages the use of electronic communication devices such as cell phones (texting, etc.) during class because they distract other students from the learning experience. Please place such devices in silent mode during class. If you must answer an emergency call, please walk unobtrusively out of the class, finish the conversation, and return to your seat equally unobtrusively. Under no circumstances will exam reviews be recorded in any way.

**Laptop Use**
You are welcome to bring a laptop or other device to class with the presumption that you are using it to facilitate your own learning (take notes, research an issue, etc.). The use of laptops for other uses is discouraged as it distracts from the learning experience. Lectures may not be recorded.

**Food in Class**
Students’ schedules may be hectic and may not allow time between classes for meals. If consuming food and drink in the lecture classroom, please respect the facilities by cleaning up all spills immediately and removing all trash. Food or drink may not be brought into, nor consumed, in the lab room.

**Missed Exam**
Students who must miss an exam should contact the instructor in advance to make arrangements to make up the missed exam. If the absence is unplanned, you should contact the instructor as soon as possible about the situation. Students who miss an exam or pop quiz due to excused absence may make it up. Exam and quiz makeups should be completed as soon as possible.

Any student with three or more final examinations scheduled on the same day may request to take one of the examinations on another day during the final examination period. The time sensitive process is described below the Final Exam Schedule found at: [http://registrar.tamucc.edu/Register%20for%20Classes/Final_Exams.html](http://registrar.tamucc.edu/Register%20for%20Classes/Final_Exams.html)

**Participation**
Students are encouraged to actively participate in lecture and lab discussion. Generally, students who participate more actively are able to learn the material more effectively. Lab participation is a component of the course grade.

**Others**
**Lab Attire:** Closed-toed shoes are required in the lab. Students not wearing appropriate footwear will not be allowed in the lab. Other attire may be required for specific lab activities. Many labs are conducted outside, rain or shine (except in rare occasions such as hurricanes). Wear weather-appropriate clothes, as well as sunscreen and/or bug spray. Check the announcements posted to Blackboard each week for information on the weekly lab activity and appropriate attire.

**Lab Manual:** The lab manual is posted online to the Blackboard website for your lab section. Read the lab procedures before lab and come to lab prepared: Print out and bring the data sheets from the lab manual to your lab meeting each week, since none will be provided for you.
Lab TAs: Graduate Teaching Assistants (TAs) are directly responsible for managing each lab section, delivering lab instruction, and grading lab assignments. Direct any questions about the lab or lab assignments to your Lab TA. Contact information for Lab TA’s will posted via Blackboard on the lab website.

Plagiarism. Penalties for plagiarism are discussed in the TAMUCC Academic Integrity/Plagiarism policy and apply to both lecture and lab assignments. The lab experiments and surveys are conducted in groups, and sharing data is allowed, but each student must write an individual, unique lab report, in his or her own words. Two or more students cannot submit a shared lab report. Students cannot copy any text, figures, tables, or graphs or other parts of a lab report from others and submit it as their own or it will be considered plagiarism.
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. 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 found 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.