Introduction to Environmental Science ESCI 1401
Department of Physical and Environmental Sciences
Spring 2015

A. COURSE INFORMATION

Course number/section: ESCI 1401.002
Class meeting time: Lecture T.R. 12:30-1:45 pm;
Lab meeting time: Lab meets once weekly (ESCI 1401.101 M 9-10:50 am; ESCI 1401.102 T 9-10:50 am; ESCI 1401.103 W 9-10:50 am; ESCI 1401.104; W 11 am-12:50 pm; ESCI 1401.105 R 9-10:50 am; ESCI 1401.106 F 9-10:50 am)
Class / Lab location: Lecture in IH 164; all labs in CI 214
Course Website: http://Bb9.tamucc.edu (lecture and labs have separate websites)

B. INSTRUCTOR INFORMATION

Instructor: Jennifer Smith-Engle
Office location: NRC 3502
Office hours: M. 10 am-2:30 pm, W. 10-11:30 am
Telephone: 825-2436
e-mail: Jennifer.Smith-Engle@tamucc.edu
Appointments: Please email instructor directly for an appointment. Appointments may be outside office hours.
Lab instructors: Graduate Teaching Assistants serve as lab instructors; their contact information will 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. (Lab) Many labs require a calculator; bring one with you (most cell phones have a calculator).

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. Be able to 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. Be able to present data in a scientific format and evaluate and discuss the data scientifically.

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INSTRUCTIONAL METHODS AND ACTIVITIES

Instructional methods include interactive lectures and weekly labs.

G. 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.

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>% of FINAL GRADE</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Lecture exams (worth 10%, 15% and 15% respectively)</td>
<td>40%</td>
</tr>
<tr>
<td>8 Lecture Pop Quizzes</td>
<td>10%</td>
</tr>
<tr>
<td>Green Campus Team Project</td>
<td>10%</td>
</tr>
<tr>
<td>3 Formal Lab Reports</td>
<td>22.5%</td>
</tr>
<tr>
<td>5 In-Class Lab Write-Ups</td>
<td>10%</td>
</tr>
<tr>
<td>7 Lab Quizzes</td>
<td>7%</td>
</tr>
<tr>
<td>Lab Participation</td>
<td>0.5%</td>
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<tr>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>

H. COURSE CONTENT/SCHEDULE

LECTURE SCHEDULE

<table>
<thead>
<tr>
<th>WEEK</th>
<th>DATE</th>
<th>LECTURE TOPIC</th>
<th>TEXTBOOK CHAPTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1/22</td>
<td>Class orientation. Understanding Our Environment</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>1/27</td>
<td>Environmental systems: Matter and Energy and Life</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>1/29</td>
<td>Evolution, Species Interactions, and Biological Communities</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>2/3</td>
<td>Continue</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2/5</td>
<td>Human Populations</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>2/10</td>
<td>Continue</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2/12</td>
<td>Biomes and Biodiversity</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>2/17</td>
<td>Continue</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2/19</td>
<td>Continue</td>
<td></td>
</tr>
<tr>
<td>WEEK</td>
<td>DATE</td>
<td>LECTURE TOPIC</td>
<td>LAB MANUAL CHAPTER</td>
</tr>
<tr>
<td>------</td>
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</tr>
<tr>
<td>1</td>
<td>1/22</td>
<td>NO LAB</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1/26-1/30</td>
<td>Lab Safety / Lab 1: Scientific Method</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>2/2-2/6</td>
<td>Lab 2: Species Diversity</td>
<td>2</td>
</tr>
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**LAB SCHEDULE**
Consult your lab website on Blackboard before each lab for additional pertinent information. *Each lab activity will be introduced on Monday of a given week and offered for the last time on Friday of that 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.

I. **COURSE POLICIES**

**Attendance/Tardiness**

*Lecture Attendance:* Regular attendance in lecture is expected. If you cannot attend a lecture meeting you should contact 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.

**Extra Credit**
Limited extra credit opportunities will be available. Extra credit work must be submitted by the stated deadlines.

**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.

**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.

**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 labroom.

**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.

**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.

J. COLLEGE AND UNIVERSITY POLICIES

- Academic Integrity (University)
  It is expected that university students will demonstrate a high level of maturity, self-direction, and ability to manage their own affairs. Students are viewed as individuals who possess the qualities of worth, dignity, and the capacity for self-direction in personal behavior. See Full University Policy at http://catalog.tamucc.edu/content.php?catoid=10&navoid=313#Academic_Integrity

- Deadline for Dropping a Course with a Grade of W (University)
  The grade of W will be assigned to any student officially dropping a course by Friday, April 10, 2015. No student is eligible to receive a W without completing the official drop process by this deadline. Visit the Office of the University Registrar for the Course Drop Form that must submitted. After April 10, 2015 a student will not be allowed 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**
Disability Services (DS) is the hub for coordinating services and accommodations to ensure accessibility and utilization of all programs for all Texas A&M University-Corpus Christi students with disabilities. Our services are designed to meet the unique educational needs of enrolled students with documented permanent or temporary disabilities. DS provides intake and consultation services to students seeking to register with our office. DS reviews an individual’s documentation of disability and assesses eligibility for services and the determination of reasonable accommodations. For more information visit the Disability Services Office at 116 Corpus Christi Hall or go to http://disabilityservices.tamucc.edu/

**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.