ENVIRONMENTAL MANAGEMENT SYSTEMS
ESCI-5380
Department of Physical & Life Sciences
Environmental Laws & Regulations
Fall 2015

COURSE SYLLABUS

A. COURSE INFORMATION

Course number/section: ESCI-5380.001
ENVIRONMENTAL MANAGEMENT SYSTEMS
63455.201509: [FALL-15] ESCI-5380-001-ENVIRONMENTAL MANAGEMENT SYSTEMS

Class meeting time: Tuesdays Weekly – 5:30 – 8:30 pm

Class location: TBD – Contact Instructor

Course Website: 63455.201509: [FALL-15] ESCI-5380-001 - ENVIRONMENTAL MANAGEMENT SYS

https://bb9.tamucc.edu/webapps/portal/frameset.jsp?tab_tab_group_id=2_1&url=%2Fwebapps%2Fblackboard%2Fexecute%2Flauncher%3Ftype%3DCourse%26id%3D44402_1%26url%3D

B. INSTRUCTOR INFORMATION

Instructor: H.A. Tony Wood
Instructor Mailing Address: 6300 Ocean Drive, Unit 5850, Corpus Christi, TX 78412
Instructor Office: 6300 Ocean Drive, NRC Suite 1105, Corpus Christi, TX 78412
Office Hours: By Appointment. Generally 9-5:30 M-F
Telephone: (w) 361-825-3335
E-mail: tony.wood@tamucc.edu

Appointments: Submit a meeting request using Outlook. You may also e-mail or call. In any case, the meeting should not be considered confirmed until it is accepted by the instructor. (For exceptionally important issues, walk-ins may be accepted.)

C. COURSE DESCRIPTION

Catalog Course Description
This course explores the systems management approach used by businesses and governments to promote environmental quality and sustainability. EMS and ISO 14001 standards go beyond minimally acceptable environmental compliance.

Extended Course Description
Environmental Management Systems (EMS) provide a systematic approach for managing organizational environmental improvement. The EMS goes beyond environmental compliance and addresses a wide variety of environmental aspects and impacts. These include recycling, energy, and transportation functions. The EMS approach is in widespread use today to manage and improve the environmentally sustainability and efficiency of all organizational operations and activities. An EMS is required for federal installations as they measure performance in the implementation of EO 13423, is widely used at all levels of government, and includes an established international standard used by multi-national organizations to standardize their responsible environmental management.

This course (ESCI 5380) is designed to provide Graduate level students a perspective of advanced environmental management planning programs and strategies. Students who anticipate working in an environmental management capacity with companies, major industries, and governmental entities will gain a thorough understanding of EMS. Many prospective employers are mandated to develop a systems management approach to their environmental health and safety programs. The development, implementation, and management of environmental management systems go beyond compliance in the pursuit of environmental quality and sustainability in conformance with the ISO 14001 standard.

D. PREREQUISITES AND COREQUISITES

Prerequisites – Graduate or senior ESCI standing. This course requires knowledge of environmental laws and regulations in the United States. Courses such as Environmental Laws & Regulations (either ESCI 4301 or ESCI 5302 or equivalent) or permission of the instructor is mandatory.

Co-requisites - None

E. REQUIRED TEXTBOOK(S), READINGS AND SUPPLIES

Required Textbook: "Environmental Management Systems: An Implementation Guide for Small and Medium Sized Organizations" published in December 2000 by the U.S. EPA, in cooperation with NSF International. This guide can be used by organizations of all sizes. The 201 page text can be downloaded free of charge from:


Other guidance and resource materials will be accessible from online resources which will be posted on Blackboard.

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, students and instructors can evaluate how well they are accomplishing these learning outcomes. Students can focus more efficiently and effectively on their learning
efforts. This information can also help instructors identify challenging areas for students and adjust their teaching approach to facilitate learning.

Course Objectives: The purpose of this course is to prepare students for a role in organizational environmental management. Successful participation and study in this course will enable students to:

- Understand and describe the systems management approach and basic concepts of Environmental Management Systems and ISO 14000,
- Define the relationships between ISO 9000, ISO 14000, ISO 18000, EMS, and SEMS,
- Develop, implement, and audit Environmental Management Systems at all appropriate organizational levels,
- Develop corporate environmental policies & planning,
- Identify and document environmental aspects and impacts,
- Understand how legal environmental compliance fits within the scope of EMS,
- Conduct environmental management training
- Explain pertinent national (EO 13423) and international (ISO 14001) standards related to EMS
- Conduct environmental compliance reviews and audits
- Recognize environmental, energy, or transportation management excellence
- Work with a team to collaboratively develop a preliminary EMS.
- Follow effective EMS auditing concepts.

G. INSTRUCTIONAL METHODS AND ACTIVITIES

1. Briefings & Lectures – The early part of this course will include weekly readings and lectures. Students are required to review any briefing(s) and will be responsible for knowing and understanding the content.

2. Readings - This course will include weekly reading assignments. There may also be a web based research effort each week. Lectures and class discussions will be related to these reading assignments. There may also be special assignments from the professor.

3. After Week 6 the class will collaborate to develop a comprehensive EMS document to describe and guide environmental quality improvement within the selected TAMU-CC operating unit. Each student will be expected to become familiar with the university department or organization that will be focused on for EMS discussions during this course. The student will be expected to obtain permission of the organization manager to discuss EMS aspects and impacts with the class. Several TAMU-CC organizations have developed EMS and others are currently developing EMS. The organization that will be used for class focus over the Fall 2015 semester will be decided no later than the second week of the class.

4. Participation – This is a course requiring discussion and collaboration. Participation is mandatory. Students should be prepared to engage in discussions regarding EMS progress each week. Individuals who must miss any class are responsible for obtaining notes, instructions, and assignments from other class members. Class participation will be evaluated by peers. Participation will count for 20% of the total course grade.

5. Course Assignments - Students will individually prepare an environmental briefing on the selected organizational unit and the industry group it represents. This briefing will
include appropriate elements of the organization’s idealized EMS elements including aspects, impacts, targets, training, and a timeline for implementation.

6. Exams – One examination will be given during the fifth week of the semester. Students are expected to be prepared and complete this exam on the scheduled exam date. Students with an excused absence from the professor must make up the exam prior to the next class period. The comprehensive exam over EMS is valued at 30% of the total course grade.

H. MAJOR COURSE REQUIREMENTS AND GRADING

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>% of FINAL GRADE</th>
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<tbody>
<tr>
<td>Class Participation</td>
<td>20</td>
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<tr>
<td>Report on Industry &amp;</td>
<td>20</td>
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<tr>
<td>Organizational Unit</td>
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<tr>
<td>Exam</td>
<td>30</td>
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<tr>
<td>Summary Report</td>
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<td>Total</td>
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I. COURSE CONTENT/SCHEDULE

Week 1
- Introductions & Expectations
- Overview of Course
- Systems Management Overview
- EMS Overview & Organization
- Overview of Textbook
- Designing the EMS

Week 2
- Textbook pages 1-75
- Organizational Involvement at all Levels
- Establishing the Environmental Policy Statement
- Establishing the EMS Team
- Basic & Supporting Operations
- Contractors & the EMS
- Necessary Expertise
- EMS Responsibilities
- Planning & Scheduling
Week 3
- Textbook pages 76-150
- Establishing the Environmental “Fenceline”
- Review of Environmental Regulations
- Environmental Training
- Gap Analysis

Week 4
- Textbook pages 151-201
- Environmental Aspects & Impacts
- Determining Significance of Impacts

Week 5
- Comprehensive exam over textbook, lectures, & discussions to date

Week 6
- Industry & Operational Units Reports
- Systems Approach
- Linking Environmental Objectives & Programs
- Targets

Week 7
- Corrective Actions
- Organizational Structure
- New Environmental Process Review

Week 8
- Documentation
- Compliance Logs
- Pollution Prevention Logs
- Operations Control Procedures
- Operations Control Logs

Week 9
- Community Issues
- Stakeholder Communications

Week 10-13
- Discussions and the development of a collaborative report
- Student Presentations/Review

Note: Changes in this course schedule may be necessary and will be announced to the class by the Instructor.

J. COURSE POLICIES

Attendance/Tardiness
This course requires extensive collaborative student activities. Students will function as an environmental consulting practice to develop a professional report. Students are expected to assist one another, exhibit teamwork and collaboration and to be courteous to others in the classroom and online. Interrupting a lecture, showing up late or unprepared, or submitting assignments late, are all considered inappropriate behavior.

Late Work and Make-up Exams
Late response to assignments will generally be assessed by peers within the class and can be used to calculate and grade individual participation. Instructor assessment of the
participation grade or allowance for make-up exams will only be granted for extenuating circumstances.

Extra Credit
The baseline information in this course is of such importance that students are encouraged to gain additional knowledge about the core topics rather than seeking extra credit to mitigate substandard grades.

Cell Phone Use – Cell phone conversations during class periods are acceptable only for emergencies. Conducting smart phone research pertaining to lecture topics during the class period is acceptable and encouraged. Relevant information should be shared with the class and may be called for by the instructor at any time.

Laptop Use – Same as cell phone use.

Participation - Weekly course participation is mandatory.

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)
The grade of W will be assigned to any student officially dropping a course. Please consult with the instructor before you decide to drop to be sure it is the best thing to do. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. Should dropping the course be the best course of action, visit the Office of the University Registrar for the Course Drop Form that must be submitted. No student is eligible to receive a W without completing the official drop process by this deadline. 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.

- **Blackboard**
  Blackboard is a web-based learning management system designed to support fully online courses and to provide a space for face-to-face course supplementation. It is at the core of the lessons and deliverables in this course. Visit and logon to the Blackboard Resources homepage now to become familiar with this system and its technical support features, and to make sure that your computer and servers are compatible.

  [https://iol.tamu.edu/bb_resources_students.html](https://iol.tamu.edu/bb_resources_students.html)

M. GENERAL DISCLAIMER

The instructor reserves the right to modify the information, schedule, assignments, deadlines, and course policies in this syllabus if and when necessary. He will announce such changes in a timely manner during regularly scheduled lecture periods and or online at the course website in Blackboard.