

College of Business and Technology
School of HRD and Technology
Course Syllabus

Environmental Regulations
Mr. Charles W. Murray
charles@sageenvironmental.com

TECH 4358
SSII-2009
903.723.2480

I. Course Description:

This is a 3 semester hour course oriented toward the undergraduate student in safety, health and environmental technology. This course explores and analyzes global environmental developments from a historical, ethical, economic, and legal/regulatory perspective. Regulations within the three broad environmental areas of solid waste, air quality and water quality will be studied. Environmental management and conservation tasks for the safety, health and environmental professional will be addressed as they relate to the Pollution Prevention Act. (80% Lecture/20% Lab)

II. Textbook:

Percival, Shroeder, Miller & Leape (2006). *Environmental Regulation: Law, Science & Policy*. Aspen, 5th Edition

III. Course Objectives:

- A. to develop an understanding for environmental regulation and its application in the workplace as it relates to air quality, water quality, and hazardous waste mgmt.
- B. to develop an environmental literacy for the industrial safety professional.
- C. to gain an understanding of required EPA reporting programs.
- D. to gain an understanding of required TNRCC reporting programs.
- E. to understand how to identify and to assist in resolving environmental law issues.
- F. to develop and enhance statutory analysis and interpretation skills.
- G. to gain a basic understanding of basic regulatory process that is used by administrative agencies to develop and promulgate regulations.
- H. to develop an enhanced ability to critique regulatory policy choices.

IV. Statement of Learning Objectives:

- A. Determine and identify the classifications of environmental hazards.
- B. Determine waste generator status of exempt, small, or large.
- C. Determine air, liquid, and/or solid permitting processes.
- D. Determine communication requirements with the Texas Commission on Environmental Quality (TCEQ).

V. Course Competencies:

- A. Computer-base skills - Each student will complete a project report about the current status of an environmental regulation when implemented in a business or industry setting. The project report will be formatted using abbreviated APA guidelines with the use of work-processing and internet searches to include inclusion of charts, graphs, or figures. Access to electronic libraries is encouraged.
- B. Communication skills - A five minute oral environmental regulation briefing will be scheduled for each student to present in class. The topic is of the student's choice. Presentation format is specified by the instructor and included with the course syllabus.
- C. Interpersonal skills - This competency will be addressed as students will be divided into problem solving teams.
- D. Problem Solving - Student problem solving teams will be provided environmental workplace scenarios and asked to make recommendations for solutions before the class.
- E. Ethical Issues in Decision Making and Behavior - Students will make decisions about environmental regulations in the workplace from the viewpoints of the Plant Manager and the Environmental Manager.
- F. Personal Accountability for Achievement - Each student will follow designated suspense dates for course work as listed in the course syllabus.
- G. Competence in Basic Technology Principles:
 - 1. By the study of environmental regulations - the student will recognize environmental compliance requirements to comply with local, state, and federal laws as an industrial safety professional.
 - 2. Students will recognize and be exposed to environmental work place problems by participating in industrial tours and listening to guest lecturers.

VI. Course Requirements:

A. Assignments

- 1. Group problem solving project (environmental regulation case study) (in class presentation)
- 2. Midterm exam
- 3. Final exam
- 4. Two written topic summaries
- 5. Read assigned materials
- 6. Class attendance

B. Weighted Grade Distributions*

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|----|-------------------------------|-----|
| 1. | Topic summaries | 10% |
| 2. | Group problem solving project | 20% |
| 3. | Midterm exam | 35% |
| 4. | Final exam | 35% |

*all course requirements will be graded by percentage of completion and correctness.

C. Suspense Dates

Class Start Date:	T, 14 Jul 2009
Class End Date:	R, 13 Aug 2009
Class Drop Date:	F, 31 Jul 2009
Group Problem Solving Project:	R, 23 Jul 2009
Topic Summary #1:	R, 23 Jul 2009
Topic Summary #2:	R, 30 Jul 2009
Individual Research Project:	R, 6 Aug 2009
Midterm Exam:	T, 28 Jul 2009
Final Exam:	R, 13 Aug 2009

- D. Regular classroom attendance is expected to successfully complete this course. Any make up course work due to a student's absence is considered on a case by case basis.

VII. Discussion Topics:

Reading Assignments

A. Statutes: A historical Perspective	pgs. 88 – 112, wk #1
B. Approaches to Regulation: Assessing the Options	pgs. 116 – 124, wk #1
C. The Regulatory Process	pgs. 144 – 160, wk #2
D. Waste Management and Pollution Prevention	pgs. 309 – 401, wk#3
E. MIDTERM EXAM	wk #3
F. Air Pollution Control	pgs. 467 – 497, wk#4
G. Water Pollution Control	pgs. 581 – 597, wk#4
H. Environmental Enforcement	pgs. 937 – 962, wk #5
I. FINAL EXAM	wk #5

VIII. IDEA Statement:

If you have a disability, including a learning disability, for which you request an accommodation, please contact Ida MacDonald in the Disability Support Services office so that the appropriate arrangements may be made. In accordance with the federal law, a student requesting accommodation must provide documentation of his/her disability to the Disability Support Services counselor. For more information, call or visit the Student Services Center located in the University Center, Room 111. The telephone number is 566-7079 (TDD 565-5579).

IX. Academic Honesty Statement:

“Academic dishonesty, such as unauthorized collusion, plagiarism and cheating, as outlined in the Handbook of Operating Procedures, University of Texas at Tyler, will not be tolerated”. University regulations require the instructor to report all suspect cases of academic dishonesty to the Dean of Students for Disciplinary action. In the event disciplinary measures are imposed on the student, it becomes part of the student’s official school records. Also, please note that the handbook obligates you to report all observed cases of academic dishonesty to the instructor.

X. ITV Classrooms:

Both audio and video will be recorded during interactive television classes. The recorded class information will be made available to ITV students in case of ITV transmission problems.

XI. Grade Replacement:

If you are repeating this course for a grade replacement, you must file intent to receive grade forgiveness with the Registrar by the 12th day of class. Failure to file intent to use grade forgiveness will result in both the original and repeated grade being used to calculate your overall grade point average. A student will receive grade forgiveness (grade replacement) for only three (undergraduate student or two (graduate student) course repeats during his/her career at UT Tyler. (2006-2008 Catalogue, p. 35).

XII. University Policies Regarding Academic Processes:

POLICIES THAT MUST APPEAR IN COURSE SYLLABUS

The following University policies must appear on each course syllabus or be provided as an informational sheet (web-links to these policies may be used in the print or electronic syllabus)

<http://www.uttyler.edu/academicaffairs/syllabuspolicies.pdf>

Students Rights and Responsibilities

To know and understand the policies that affect your rights and responsibilities as a student at UT Tyler, please follow this link: <http://www.uttyler.edu/wellness/StudentRightsandResponsibilities.html>

Grade Replacement/Forgiveness

If you are repeating this course for a grade replacement, you must file an intent to receive grade forgiveness with the registrar by the 12th day of class. Failure to do so will result in both the original and repeated grade being used to calculate your overall grade point average. Undergraduates will receive grade forgiveness (grade replacement) for only three course repeats; graduates, for two course repeats during his/her career at UT Tyler.

State-Mandated Course Drop Policy

Texas law prohibits a student who began college for the first time in Fall 2007 or thereafter from dropping more than six courses during their entire undergraduate career. This includes courses dropped at another 2-year or 4-year Texas public college or university. For purposes of this rule, a dropped course is any course that is dropped

after the 12th day of class (See Schedule of Classes for the specific date).

Exceptions to the 6-drop rule include, but are not limited to, the following: totally withdrawing from the university; being administratively dropped from a course; dropping a course for a personal emergency; dropping a course for documented change of work schedule; or dropping a course for active duty service with the U.S. armed forces or Texas National Guard.

Petitions for exemptions must be submitted to the Registrar's Office and must be accompanied by documentation of the extenuating circumstance. Please contact the Registrar's Office if you have any questions.

Disability Services

In accordance with federal law, a student requesting accommodation must provide documentation of his/her disability to the Disability Support Services counselor. If you have a disability, including a learning disability, for which you request an accommodation, please contact Ida MacDonald in the Disability Support Services office in UC 282, or call (903) 566-7079.

Student Absence due to Religious Observance

Students who anticipate being absent from class due to a religious observance are requested to inform the instructor of such absences by the second class meeting of the semester.

Student Absence for University-Sponsored Events and Activities

If you intend to be absent for a university-sponsored event or activity, you (or the event sponsor) must notify the instructor at least two weeks prior to the date of the planned absence. At that time the instructor will set a date and time when make-up assignments will be completed.

Social Security and FERPA Statement:

It is the policy of The University of Texas at Tyler to protect the confidential nature of social security numbers. The University has changed its computer programming so that all students have an identification number. The electronic transmission of grades (e.g., via e-mail) risks violation of the Family Educational Rights and Privacy Act; grades will not be transmitted electronically.

XIII. References for TECH 4358:

Morris, Peter and Riki Therivel. (2001). *Methods of environmental assessment*. ISBN-10: 0415239591.

Sasseville, Dennis R. ,W. Gary Wilson, and Robert W. Lawson. (1997). *ISO 14000 Answer book: environmental management for the world market*. ISBN-10: 0471179337.

The industrial environment-its evaluation & control. (1973). Washington, D.C.: NIOSH.

Periodicals:

Environmental protection. A periodical published by Stevens Publishing Corp., Waco, Texas.

Industrial safety & hygiene news. Troy, Michigan: BNP Media II.

Professional safety. *journal of the american society of safety engineers*. Des Plaines, Illinois: American Society of Safety Engineers.

Library:

Bureau of National Affairs (BNA) CD-ROM Environmental Protection Agency Regulations

Web Sites:

www.em.doe.gov
www.epa.gov (40 CFR series of regulations)
www.tceq.state.tx.us

XIV. Topic Summaries:

Directions: Write article summaries from two of the following topics listed below. These articles should be taken from recent periodicals, not handbooks or textbooks. Each summary shall be one (1) page in length. Each summary must come from a separate periodical of a different titled publication. The articles you choose to review must have relevance to industrial environmental regulation and reflect current trends in the environmental movement. A topic summary format for your review is attached to this syllabus.

1. Environmental pollution
2. Environmental legislation
3. Environmental management
4. Environmental controls (hardware & software)
5. Environmental remediation
6. Environmental conservation
7. Environmental reporting requirements

XV. Problem Solving Team Presentation Project:

Each section of TECH 4358 will be divided into problem solving teams of three students per team. The instructor will provide each team with an environmental scenario related to a business and/or industry. Each team will be provided a class period to organize an outline the team's problem solving processes. On July 23, 2009, each team will prepare an in-class presentation and written report to be turned in to the instructor at the time of the oral in-class presentation. The teams' presentation will be in accordance with the attached presentation format.

XVI. Presentation Format:

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|-------------------------------------|-------------------------------|
| I. Name | V. Closure |
| II. Introduction | A. Review Critical Attributes |
| A. Focus | B. Discussion |
| B. Objectives of Presentation | |
| III. Delivery | |
| A. Style (content delivery methods) | |
| B. Organization of Content | |
| IV. Understanding | |
| A. Questions | |
| B. Discussion | |

Vehicular Systems

McCosh, Dan (1986). No-springs, no-shocks. *Popular Science*. 444 (6), 60-63.

The author believes active suspension will replace springs and shocks with a computer and high-speed hydraulics. The primary benefit of the system is to isolate one suspension characteristic from another. Essentially, MacPherson struts are replaced with hydraulics struts which can react within 3/1000 of a second, and can cycle up to 1500 times/minute. A computer responds to tiny changes in body and wheel movement by controlling double-acting struts. As well as sending bumps, the system reads the forces acting on the car body preventing it from banking to the outside of a curve. The idea of active suspension is credited to Britain's great interest in its application. American auto manufacturers have characterized the system as expensive, noisy, and consuming power, however, it may appear on some "expensive" U.S. automobiles.

Reaction

This article has good appeal for automobile enthusiasts who want to keep abreast of the latest technology. The reporting of this innovative suspension system was very consistent and well documented through interviews. Several pictures of the system components were shown as well as a pictorial schematic of the complete suspension system. Upon reading this article, anyone would have a good working knowledge of the computer-controlled suspension.

Note: Margins are to be set at the following dimensions:

Left	= 1.25"
Right	= 1.0"
Top	= 1.0"
Bottom	= 1.0"