

**COLLEGE OF SCIENCE AND ENGINEERING TECHNOLOGY**  
**Department of Agricultural Sciences and Engineering Technology**  
***Sam Houston State University***

**COURSE SYLLABUS**  
**ETSM 4363 – Safety Program Management**  
**Fall, 2017**

**Course Title:** Safety Program Management  
**Course ID:** ETSM 4363 - 01  
**Credit Hours:** 3-hour undergraduate course  
**Delivery:** Online setting lecture  
**Delivery Time:** Online (Weekly)  
**Instructor:** Tareq I. Ismail, Ph.D.  
**Office:** PIRKLE ENGINEERING TECH CTR 420E  
**Office hours:** T & Th (11:00 a.m. - 1:00 p.m.)  
**Virtual Hours:** Skype (by appointment)  
**E-mail:** txi003@shsu.edu  
**Skype user name:** **tareq.ismail007**

**Catalog Data:** ETSM 4363 - Safety Program Management (three credits). This course addresses all applicable standards from OSHA, NIOSH, and other US federal and state government regulatory agencies, and covers a wide range of new and emerging trends. Emphasis will be on emerging roles of safety professionals, the safety professional's role in product recalls, maintenance requirements of NFPA 70E-2009 for electric shock, "hot work," nanoscale materials in industrial hygiene, global harmonization of OSHA's Hazard Communication Standard, MRSA in the workplace, and establishing a safety-first corporate culture.

**Prerequisites:** None

**Textbook:** Dr. David L. Goetsch, Occupational Safety and Health for Technologists, Engineers, and Managers, Pearson; 8th edition (February 3, 2014)

**Reference:** Thomas P. Fuller, Basics of Occupational Safety and Health, Routledge; National Safety Council; First edition (July 23, 2014)

Course objectives: To prepare students for occupational and safety health responsibilities in today's complex environments. Thoroughly prepares students for current and future realities in the field of occupational safety and health.

Topics: This course systematically addresses

- ✓ The Occupational Safety and Health Act (OSH Act) and Occupational Safety and Health Administration (OSHA)
- ✓ Standards and codes
- ✓ Laws and liability
- ✓ Stress-related problems
- ✓ Fire hazards and life safety
- ✓ The evolving roles of health and safety professionals
- ✓ Health and safety training
- ✓ Human factors in safety
- ✓ Bloodborne pathogens in the workplace
- ✓ Ergonomics and safety
- ✓ Workers' compensation
- ✓ Repetitive strain injuries (RSIs)

Course vs. objectives: The course supports the following outcomes in providing the students with:

- Concise, focused, basic coverage of the field's latest issues and trends: Thoroughly prepares students for current and future realities in the field of occupational safety and health
- provides an up-to-date, practical teaching resource: Focuses on the basic safety-related needs of people in the workplace
- Combines theory and principles in realistic settings: Focuses on the new challenges of occupational safety and health in global workplace environments, and the changing roles of safety/health professionals

## **SYLLABUS**

Session Date	Chapter Number	TOPIC	Assignment	Due
Aug 24	6	The OSH Act, Standards, and Liability	#1 (ch6)	Sep 03 @ 11:59pm
Aug 29	7	Workers' Compensation	#2 (ch7)	Sep 03 @ 11:59pm
Aug 31	8	Accident Investigation and Reporting	#2 (ch8)	Sep 03 @ 11:59pm
Sep 05	9	Product Safety and Liability	#3 (ch9)	Sep 10 @ 11:59pm
Sep 07	10	Ergonomic Hazards: Musculoskeletal Disorders (MSDs) and Cumulative Trauma Disorders (CTDs)	#3 (ch10)	Sep 10 @ 11:59pm
<b>Sep 08</b>		<b>Twelfth Class Day - Last Day to Drop Without a "Q" and Receive 100% Refund.</b>		
Sep 12	11	Stress and Safety	#4 (ch11)	Sep 17 @ 11:59pm
Sep 14	12	Safety and Health Training	#4 (ch12)	Sep 17 @ 11:59pm
Sep 19	13	Violence in the work place	#5 (ch13)	Sep 24 @ 11:59pm
Sep 21	14	Mechanical Hazards and Machine Safeguarding	#5 (ch14)	Sep 24 @ 11:59pm
<b>Sep 25</b>		<b>Exam I</b>	<b>Ch (6-14)</b>	<b>Sep 25 @ 11:59pm</b>
Sep 26	15	Falling, Impact, Acceleration, Lifting, and Vision Hazards with Appropriate PPE	#6 (ch15)	Oct 01 @ 11:59pm
Sep 28	16	Hazards of Temperature Extremes	#6 (ch16)	Oct 01 @ 11:59pm
Oct 03	17	Pressure Hazards	#7 (ch17)	Oct 08 @ 11:59pm
Oct 05	18	Electrical Hazards	#7 (ch18)	Oct 08 @ 11:59pm

Oct 10	19	Fire Hazards and Life Safety	#8 (ch19)	Oct 15 @ 11:59pm
Oct 12	21	Radiation Hazards	#8 (ch21)	Oct 15 @ 11:59pm
Oct 17	20	Industrial Hygiene and Confined Spaces	#9 (ch20)	Oct 22 @ 11:59pm
Oct 19	20	Industrial Hygiene and Confined Spaces	#9 (ch20)	Oct 22 @ 11:59pm
Oct 24	22	Noise and Vibration Hazards	#10 (ch22)	Oct 29 @ 11:59pm
Oct 26	23	Computers, Automation, and Robots	#10 (ch23)	Oct 29 @ 11:59pm
<b>Oct 30</b>		<b>Exam II</b>	<b>Ch (6-10)</b>	<b>Oct 30 @ 11:59pm</b>
Oct 31	24	Bloodborne Pathogens and Bacterial Hazards in the Workplace	#11 (ch24)	Nov 5 @ 11:59pm
Nov 02	26	Ethics and Safety	#11 (ch26)	Nov 5 @ 11:59pm
Nov 07	25	Preparing for Emergencies and Terrorism	#12 (ch25)	Nov 12 @ 11:59pm
Nov 09	27	Hazard Analysis/Prevention and Safety Management	#12 (ch27)	Nov 12 @ 11:59pm
<b>Nov 10</b>		<b>Last Day to Drop Full-Term Courses with a "Q"</b>		
Nov 14	28	Promoting Safety	#13 (ch28)	Nov 19 @ 11:59pm
Nov 16	29	Environmental Safety and ISO 14000 (Environmental Management)	#13 (ch29)	Nov 19 @ 11:59pm
Nov 20		Review/ work on Final project		
<b>Nov22-24</b>		<b>Thanksgiving Holidays for Students and Faculty</b>		
<b>Nov27-30</b>		<b>Final project (power point &amp; Project paper)</b> <b>IDEA evaluation</b>		<b>Dec 01 @ 11:59pm</b>

## **WELCOME! HERE ARE THE RULES FOR ETSM 4363 – Safety Program Management**

### **1. READINGS**

Prior to each class, you are required to read the material indicated in the syllabus. You are expected to go through both the text and examples.

### **2. ASSIGNMENTS**

There is ABSOLUTELY no make-up for the assignments (Exams, Homework, etc.). **Each student is required to do the assigned homework.** All assignments should be turned on line. Refer to syllabus for each assignment due dates. The deadline to turn in an assignment on the due date is before midnight (11:59 PM).

### **3. TESTS**

There will be three exams and final comprehensive exam as indicated in the syllabus. No make-up exams will be given, except in very exceptional circumstances (e.g., documented illness).

### **4. Lectures**

I will do my lectures online. You will be notified of updates and any changes via e-mails.

### **5. Communication with class**

All my communication outside the class will be via e-mail. I tends to send a lot of e-mails to remind you that I have updates with reading to assignments, Homework assignments, exams, exam reviews, deadlines, and recommendations for both Homework and exams. I respond to students' e-mails. I encourage you to check your e-mails frequently for updates.

### **6. OFFICE HOURS:**

I am available via e-mail.

#### **Virtual Hours:**

I am also available via Skype.

#### **e-mail:**

[txi003@shsu.edu](mailto:txi003@shsu.edu)

**Skype user name: tareq.ismail007**

## 7. **GRADING**

My teaching philosophy is to encourage cooperation not competition; therefore, the grades will not be curved.

You Also have many opportunities to be rewarded for your work, per the following mix:

- 60% Reading, Paper Assignments, and/or Homework
- 20% Exams (10% 1<sup>st</sup> Exam and 10% 2<sup>nd</sup> Exam)
- 20% Final project (10% Power point and 10% project paper)

The following scale will be used to determine letter grades:

- 87 -100      A
- 70-86.99      B
- 57-69.99      C
- 40-56.99      D
- 0 - 39.99      F

## 8. **IF YOU HAVE A DIAGNOSED LEARNING DIFFERENCE:**

It is the policy of Sam Houston State University that individuals otherwise qualified shall not be excluded, solely due to their disability, from participation in any academic program of the university. Further, they shall not be denied the benefits of these programs nor shall they be subjected to discrimination. Students with disabilities that might affect their academic performance should register with the Office of Services for Students with Disabilities located in the Lee Drain Annex (telephone 936-294-3512, TDD 936-294-3786, and e-mail [disability@shsu.edu](mailto:disability@shsu.edu)). They should then plan with their individual instructors so that appropriate strategies can be considered and helpful procedures can be developed to ensure that participation and achievement opportunities are not impaired. SHSU adheres to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations for students with disabilities. If you have a disability that may affect adversely your work in this class, then I encourage you to register with the SHSU Services for Students with Disabilities and to talk with me about how I can best help you. All disclosures of disabilities will be kept strictly confidential. NOTE: No accommodation can be made until you register with the Services for Students with Disabilities. For a complete listing of the university policy, see <http://www.shsu.edu/dept/academic-affairs/documents/aps/students/811006.pdf>

*The above reference is so well written, it is adopted from (Foy D. Mills, Jr., Ph.D.) syllabus.*

**9. Religious Holidays:**

University policy states that a student who is absent from class for the observance of a religious holy day shall be permitted to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence. A student who wishes to be excused for a religious holy day must present the instructor with a written statement describing the holy day(s) and the travel involved.

**10. Note:**

Your homework questions will be on your exam. So, study the homework before each exam.

You are strongly encouraged to see me in my office (even in non-office hours, in which case you should make an appointment). The best way to contact me will be through Email. Before coming to see me, calling me, or emailing me, please think your questions through in advance, and read the corresponding text in your book or notes.

**Please, come to see me if you have any questions!**

## ETSM 4369 – Safety Program Management – Final Project

Topic: From what you have learned in class develop an Environmental Safety Management program suited for your own industry (Build a Check list of things to be corrected at your work place and what you are going to do to make them safe)

Final project is done on Power point 5% and Project paper 5%. The project paper includes everything you have done in the power point with comprehensive details.

An example of previous student project (might be the same or different topic) will be provided to class to help you follow format.

It is your project/ your company!

You might want to consider some systems of safety such as:

- Design & Engineering
- Mechanical Integrity
- Mitigation devices (i.e., relief valves)
- Warning devices (i.e., alarms)
- Training & Procedures
- Workers' Compensation
- Workplace Accidents and the Human Factor.
- Hazard Recognition.
- Toxic Hazards.
- Fire Hazards.
- Process Hazards: Pressure, Steam, Electricity.
- Noise and Vibration Hazards.
- Hazards of Temperature.
- Personal Protective Equipment (PPE).
- Hazard Communication (HAZCOM).
- Respiratory Protection.

- OSHA.
- The Environmental Protection Agency.
- Stress, Drugs and Violence.

In general, cover the topics that were developed in class.

Extra credit will be given for original ideas you cover in the final project. Please identify all topics you are addressing in the table of content.

## Extra credit up for grab to whom is willing to do extra work

+1% Extra credit for creativity in the presentation in the final project, i.e. visual aid, charts, original (New) ideas, etc.

+Extra credit (TBD) will be given for doing extra assigned HW applied to overall HW total %

**Note: You will make the report interesting – It must keep me awake while I read it. A standard everyday report will only get you to **70 percent**. The other 30 percent is in your ability to make it interesting.**

**NOTE: The courses syllabus and above Scope and Sequence or Course Schedule/Outline can change based upon the classes progress as a whole, or bad weather, etc... Pay attention to announcements and periodical changes. You will receive an announcement for any changes and they will be made here also.**