

COLLEGE OF SCIENCE AND ENGINEERING TECHNOLOGY
Department of Engineering Technology
Sam Houston State University

COURSE SYLLABUS
Safety Hazard Mitigation - ETSM 4369 03
Spring, 2018

Course Title: Safety Hazard Mitigation
Course ID: ETSM 4369 - 03
Credit Hours: 3-hour undergraduate course
Delivery: Classroom lecture and/ or Online 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 4369 - This course presents concepts, methods, and techniques involved in creating communities that are more resilient to the impacts of hazards. It provides the tools to develop safety programs that emergency managers can use to reduce the impact of different types of hazards. Emphasis will be placed on mitigation; preparedness; resilience; and vulnerability. The topics may include an overview of risk management; identification tools, hazard evaluation; risk communication; analysis approach; and assessment framework.

Prerequisites: None

Textbook: Dr. Tanveer Islam, PhD., Hazard Mitigation in Emergency Management, Butterworth-Heinemann; 1 edition (September 17, 2015)

Reference: Dr. David J. Brower, Hazard Mitigation and Preparedness: An Introductory Text for Emergency Management and Planning Professionals, CRC Press; 2 edition (July 18, 2016)

Course objectives:	This course reviews the hazard mitigation framework in both private sector and governmental agencies, covering the regulatory and legal frameworks for mitigation, as well as risk assessment processes and strategies, and tools and techniques that can prevent, or lessen, the impact of disasters.
Topics:	<p>This course systematically addresses</p> <ul style="list-style-type: none"> ➤ Takes an all-hazards approach, covering terror attacks and accidents, as well as natural disasters ➤ Reviews the hazard mitigation framework in both private sector and governmental agencies, covering the regulatory and legal frameworks for mitigation ➤ Provides a step-by-step process for creating a Hazard Mitigation Plan (HMP) ➤ Addresses the needs of local, state, and federal emergency management agencies and of the private sector, including IT mitigation
Course vs. objectives:	<p>The course supports the following outcomes in providing the students with:</p> <ul style="list-style-type: none"> ➤ Addresses hazards posed by human activity, including cyber threats and nuclear accidents, as well as hurricanes, floods, and earthquakes. ➤ Students will learn about the framework for the mitigation process, hazard identification, risk assessment, and the tools and techniques available for mitigation. ➤ Coverage includes both GIS and HAZUS, with tutorials on these technologies, as well as case studies of best practices in the United States and around the world.

SYLLABUS

Session Date	Chapter Number	TOPIC	Assignment	Due
Jan 18	1	Introduction	#1 (ch1)	
Jan 23	2	Mitigation Rules and Regulations	#1 (ch2)	Feb 04 @ 11:59pm
Jan 25	2		#1 (ch2)	Feb 04 @ 11:59pm
Jan 30	3	The Role of Governments in Hazard Mitigation	#2 (ch3)	Feb 11 @ 11:59pm
Feb 01	3	Twelfth Class Day - Last Day to Drop Without a "Q" and Receive 100% Refund.	#2 (ch3)	Feb 11 @ 11:59pm
Feb 06	4	Mitigation in the Private Sector	#3 (ch4)	Feb 18 @ 11:59pm
Feb 08	4		#3 (ch4)	Feb 18 @ 11:59pm
Feb 13	5	Hazard Identification—Natural Hazards	#4 (ch5)	Feb 25 @ 11:59pm
Feb 15	5		#4 (ch5)	Feb 25 @ 11:59pm
Feb 20		Exam I Starts Feb 19 @ 12:00am	Ch (2-4)	Feb 25 @ 11:59pm
Feb 27	6	Hazard Identification—Manmade Hazards	#5 (ch6)	Mar 11 @ 11:59pm
Mar 01	6		#5 (ch6)	Mar 11 @ 11:59pm
Mar 06	7	Vulnerability Assessment and Impact Analysis	#6 (ch7)	Mar 18 @ 11:59pm
Mar 08	7		#6 (ch7)	Mar 18 @ 11:59pm
Mar 13		Spring Recess for Students and Faculty		

Mar 15		Spring Recess for Students and Faculty		
Mar 20	8	Threat and Hazard Identification and Risk Assessment	#7 (ch8)	Apr 01 @ 11:59pm
Mar 22	8		#7 (ch8)	Apr 01 @ 11:59pm
Mar 27	9	Mitigation Strategies for Natural Hazards	#8 (ch9)	Apr 08 @ 11:59pm
Mar 29	9		#8 (ch9)	Apr 08 @ 11:59pm
Apr 03		Exam II Starts Apr 02 @ 12:00am	Ch (5-7)	Apr 08 @ 11:59pm
Apr 10	10	Mitigation Strategies for Manmade Hazards	#9 (ch10)	Apr 22 @ 11:59pm
Apr 12	10		#9 (ch10)	Apr 22 @ 11:59pm
Apr 17	11	Mitigation Tools	#10 (ch11)	Apr 29 @ 11:59pm
Apr 19	11		#10 (ch11)	Apr 29 @ 11:59pm
Apr 24		Review Week		
Apr 26		Review Week		
May 01		IDEA evaluation Final Exam Starts Apr 30 @ 12:00am	Ch (8-11)	May 06 @ 11:59pm
May 03		IDEA evaluation Final Exam Starts Apr 30 @ 12:00am	Ch (8-11)	May 06 @ 11:59pm

HERE ARE THE RULES FOR ETSM 4369 – Safety Hazard Mitigation

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 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

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:

- 70% Reading, Paper Assignments, and/or Homework
- 30% Exams (10% 1st Exam, 10% 2nd Exam, and 10% 3rd Exam)

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). 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!