

# Brazosport College

## Syllabus for OSH 2410 – Principles of Safety Engineering

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### I. COURSE DESCRIPTION

#### **OSHT 2410 – Principles of Safety Engineering CIP 1507010011**

The Safety Engineering course is designed to give students foundational knowledge in safety regulations and programs applicable to the workplace. Upon successful completion of this course, students will understand multiple safety programs and the requirements needed to implement a program. It will provide regular academic credit. **Credit Hours:** 4 (4 lecture, 0 lab)

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Samuel Chamberlain

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Om Chawla

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Gary Hicks

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Dr. Mitchell Seal

- A. Prerequisite:** OSH 1313 Accident Prevention, Inspection, and Investigation  
**Required skill level:** College-level reading, writing and math.

## **II. STUDENT LEARNING OUTCOMES**

Identify terminology, regulatory requirements, hazards in the workplace, fundamental engineering concepts, management aspects, accident investigations and understanding of the following programs: Lockout/Tagout, Hot Work, Construction Safety and Contractors, Electrical Safety, Emergency Response, Fall Protection, Fire Safety, Welding Safety Program, Pressure Vessels, Rigging Safety, Process Safety/Risk Management Planning, Machine Guarding, Security and Vulnerability Assessment, Computer Security, Workplace Violence, Motor Vehicle Safety, Engineering Design and Controls for Safety, Training, Recordkeeping and Inspections.

## **III. COURSE OBJECTIVES**

The following list of course goals will be addressed in the course.

During the course, the student will, to the satisfaction of the instructor:

- a. Demonstrate a working understanding of the relevant federal regulations and how they impact programs adopted in the workplace.
- b. Demonstrate a working knowledge of hazards, risks, and control strategies
- c. Demonstrate a working knowledge of various safety programs and what elements are essential to the programs.

**Assessment: Class discussion, quizzes and exams, and term project**

## **IV. TEXTBOOK OR COURSE MATERIAL INFORMATION**

### **A. Textbook**

1. Safety Engineering Principles and Practice, 3<sup>rd</sup> Ed., Frank R Spellman, Publisher Berman Press, 2019. ISBN: 978-1-59888-980-2 (required)

Required course materials are available at the Brazosport College bookstore, on campus or online at <http://brazosport.edu/bookstore/home.html>. A student of this institution is not under any obligation to purchase a textbook from the college bookstore. The same textbook is/may also be available from an independent retailer, including an online retailer.

**For Distance Education Courses include the following:** Contact the Brazosport College Bookstore with a credit card for course materials. Phone: 979-230-3651. Fax: 979-230-3653. Email: [bookstore@brazosport.edu](mailto:bookstore@brazosport.edu). Website: <http://brazosport.edu/bookstore/home.html>

### **B. Course Outline**

**This is a sample outline only. Course schedule, assignments, exams, and content may vary with individual instructors. It will also vary based on whether the course is a summer course or a fall/spring course. The student should contact the instructor regarding questions about the course they are taking.**

### **Student Projects/Responsibilities:**

- **Chapter Readings:** Each student should come to class prepared to discuss the chapters assigned for that class. Students will be called upon in random order. All chapters will be discussed for each class

- **Current Events:** Each student should come to class with a current events discussion topic related to the topic(s) that will be covered in class for that week. Topics may be derived from work experience, news events, safety journals and incident learnings.

Thursday				
Week#	Date	OSHT 2410 Safety Engineering	Chapters	Quizzes
1	1/14/21	Introduction, Historical Perspective, Terminology, Regulatory Requirements	1, 2, 3, 4	
2	1/21/21	Safety Engineering, Engineering Concepts, Management Aspects, Accident Investigations	5, 6, 7, 9	
3	1/28/21	CSE, LOTO, Hot Work	12, 14, 15	
4	2/4/21	Construction Safety/Contractors, Electrical Safety	16, 17	Quiz 1 (Chapters 3,4,5,9)
5	2/11/21	Emergency Response, Fall Protection, Fire Safety, Welding Safety	18,19,20,24	
6	2/18/21	Pressure Vessels, Rigging Safety, Machine Guarding	25,26,32	
7	2/25/21	Process Safety Management and Risk Management Planning	31	
8	3/4/21	<b>Mid Term Exam</b>		
9	3/11/21	<b>SPRING BREAK</b>		
10	3/18/21	Security and Vulnerability Assessment, Computer and Data Security	33, 34	
11	3/25/21	Contemporary Problems Affecting Modern Workers, Workplace Violence	37, 38	Term Project Due, PP Slides
12	4/1/21	Motor Vehicle Safety, Engineering Design and Controls for Safety	38, 39	
13	4/8/21	Safety and Health Training, Recordkeeping Requirements	40, 41	
14	4/15/21	Safety Inspections	42	Quiz 2 (Chapters 37,38,40,41)
15	4/22/21	Term Project Presentations		
16	4/29/21	<b>FINAL EXAM</b>		

Week	Activity
<b>1</b>	<p><b>Topics: Introduction, Historical Prospective, Terminology Regulatory Requirements</b></p> <p><b>Textbook Readings:</b></p> <p>Chapter One: Introduction  Chapter Two: A Historical Perspective  Chapter Three: Safety Terminology  Chapter Three: Regulatory Requirements</p> <p><b>Class Activity: Review the history of Safety Regulations in the U.S.</b></p>
<b>2</b>	<p><b>Topics: Safety Engineering, Engineering Concepts, Management Aspects, Accident Investigations</b></p> <p><b>Textbook Readings:</b></p> <p>Chapter Five: Safety Engineering “Recognize, Evaluate and Control  Chapter Six: Fundamental Engineering Concepts  Chapter Seven: Management Aspects  Chapter Nine: Accident Investigations</p> <p><b>Class Activity: Review video on safety accident investigations</b></p>
<b>3</b>	<p><b>Topics: CSE, LOTO, Hot Work</b></p> <p><b>Textbook Readings:</b></p> <p>Chapter Twelve: Confined Space Entry  Chapter Fourteen: Lockout/Tagout  Chapter Fifteen: Hot Work Permit Procedure</p> <p><b>Class Activity: Review CSB videos involving incidents related to weeks topics</b>  <b>Homework Assignment: TBD</b></p>
<b>4</b>	<p><b>Topics: Construction Safety/Contractors, Electrical Safety</b></p> <p><b>Textbook Readings:</b></p> <p>Chapter Sixteen: Construction Safety and Contractors  Chapter Seventeen: Electrical Safety</p> <p><b>Class Activity: Discuss and review the importance of a Contractor Safety program and review Electrical Safety video</b></p> <p><b>Quiz 1 will be administered this week</b></p>

<b>Week</b>	<b>Activity</b>
<b>5</b>	<p><b>Topics: Emergency Response, Fall Protection, Fire Safety, Welding Safety</b></p> <p><b>Textbook Reading:</b>  Chapter Eighteen: Emergency Response  Chapter Nineteen: Fall Protection  Chapter Twenty: Fire Safety  Chapter Twenty-Four: Welding Safety Program</p> <p><b>Class Activity: Review CSB video related to the weeks topic</b></p>
<b>6</b>	<p><b>Topics: Pressure Vessels, Rigging Safety, Machine Guarding</b></p> <p><b>Textbook Reading:</b>  Chapter Twenty-Five: Pressure Vessels  Chapter Twenty-Six: Rigging Safety Program  Chapter Thirty-Two: Machine Guarding</p> <p>Class Activity: Review a machine guarding checklist and incidents involving rigging failures.</p>
<b>7</b>	<p><b>Topics: Process Safety Management and Risk Management Planning</b></p> <p><b>Textbook Reading:</b>  Chapter Thirty-One: Process Safety Management and Risk Management Planning</p> <p><b>Class Activity:</b></p> <ul style="list-style-type: none"> <li>• Review CSB video on PSM importance</li> <li>• Discuss the Mid-Term exam</li> </ul>
<b>8</b>	<b>Mid Term Exam</b>
<b>9</b>	<b>SPRING BREAK</b>
<b>10</b>	<p><b>Topics: Security and Vulnerability Assessment, Computer and Data Security</b></p> <p><b>Textbook Reading:</b>  Chapter Thirty-Three: Security and Vulnerability Assessment  Chapter Thirty-Four: Computer and Data Security</p> <p><b>Class Activity:</b></p> <ul style="list-style-type: none"> <li>• Discuss the importance of Cyber Security</li> </ul>

<b>Week</b>	<b>Activity</b>
<b>11</b>	<b>Topics: Contemporary Problems Affecting Modern Workers, Workplace Violence</b>  <b>Textbook Reading:</b> Chapter Thirty-Five: Contemporary Problems Affecting Modern Workers Chapter Thirty-Six: Workplace Violence  <b>Class Activity:</b> <ul style="list-style-type: none"> <li>Review NIOSH's Total Worker Health initiative</li> </ul>
<b>12</b>	<b>Topics: Motor Vehicle Safety, Engineering Design and Controls for Safety</b>  <b>Textbook Reading:</b> Chapter Thirty-Eight: Motor Vehicle Safety Chapter Thirty-Nine: Engineering Design and Controls for Safety <b>Class Activity:</b> Review video on safe driving techniques
<b>13</b>	<b>Topics: Safety and Health Training, Recordkeeping Requirements</b>  <b>Textbook Readings:</b> Chapter Forty: Safety and Health Training Chapter Forty-One: Recordkeeping Requirements  <b>Class Activity:</b> <ul style="list-style-type: none"> <li>Perform an OSHA 300 Log exercise</li> <li>Review the OSHA training requirements Manual</li> </ul>
<b>14</b>	<b>Topics: Safety Inspections</b>  <b>Textbook Reading:</b> Chapter Forty-Two: Safety Inspections  <b>Class Activity:</b> Perform a mock Safety Inspection or review safety inspection form
<b>15</b>	<b>Term Project Presentations</b>
<b>16</b>	<b>Final Exam</b>

**Important Semester Dates:**

Last Day to Withdraw from Classes– Check BC Academic Calendar at  
<http://catalog.brazosport.edu/index.php>

**Office Hours:**

For fulltime faculty, office hours may change from semester to semester. Current faculty office hours are included on the syllabus, see link: <https://brazosport.edu/faculty-and-staff/resources/course-syllabi-instructor-information/>

For an adjunct faculty, no office hours are required, and they are not assigned an office. To set up an appointment with an adjunct, contact the instructor as per the email address on the syllabus, see link: <https://brazosport.edu/faculty-and-staff/resources/course-syllabi-instructor-information/>

**V. STUDENTS WITH DISABILITIES**

Brazosport College is committed to providing equal education opportunities to every student. BC offers services for individuals with special needs and capabilities including counseling, tutoring, equipment, and software to assist students with special needs. For student to receive any accommodation, documentation must be completed in the Office of Disability Services. Please contact Phil Robertson, Special Populations Counselor at 979-230-3236 for further information.

**VI. TITLE IX STATEMENT**

Brazosport College faculty and staff are committed to supporting students and upholding the College District's non-discrimination policy. Under Title IX and Brazosport College's policy FFDA (Local), discrimination based on sex, gender, sexual orientation, gender identity, and gender expression is prohibited. If you experience an incident of discrimination, we encourage you to report it. While you may talk to a faculty or staff member at BC, please understand that they are "Responsible Employees" and must report what you tell them to college officials. You can also contact the Title IX Coordinators directly by using the contact information below. Additional information is found on the Sexual Misconduct webpage at [www.brazosport.edu/sexualmisconduct](http://www.brazosport.edu/sexualmisconduct)

**VII. ACADEMIC HONESTY**

Brazosport College assumes that students eligible to perform on the college level are familiar with the ordinary rules governing proper conduct including academic honesty. The principle of academic honesty is that all work presented by you is yours alone. Academic dishonesty including, but not limited to, cheating, plagiarism, and collusion shall be treated appropriately.

Academic dishonesty violates both the policies of this course and the Student Code of Conduct. In this class, any occurrence of academic dishonesty will be referred to the Dean of Student Services for prompt adjudication, and may, at a minimum, result in F, in this course. Sanctions may be imposed beyond your grade in this course by the Dean of Student Services.

Plagiarism is using another person's work or ideas without giving credit. Plagiarism is dishonest because it misrepresents the work of another as your own. This includes both copying the work verbatim or re-phrasing the ideas of another without properly acknowledging the source. When preparing work for course requirements, students must be careful to differentiate between their ideas and language and information derived from other sources. Sources include but are not limited to published and unpublished materials, the Internet and information and opinions gained directly from other people including faculty or other students. Plagiarism is considered a violation of academic integrity and professional honesty. Please refer to the Brazosport College Student Guide for more information. This is available online at <http://brazosport.edu/students/for-students/student-services/>.

## VIII. ATTENDANCE AND WITHDRAWAL POLICIES

Class attendance contributes to your final grade, but you must attend class to successfully complete the course. If you are unable to complete this course, you must complete and submit a withdrawal form with the registrar's office. If the student decides to drop out of the class, it is the responsibility of the student to initiate a withdrawal before the withdrawal deadline in order to get a "W" on their transcript. If this is not done the student will receive a grade based on test grades and class grades earned during their attendance and absence (i.e., zeros on all missed materials, exams, skills tests, and final exam).

**Students who miss 3 or more classes in a fall or Spring Session will usually be assumed to have abandoned the class and may be withdrawn before the last withdrawal date assigned by the college. After the last withdrawal date, a failing grade of "F" may be assigned for missing 3 or more classes and/or withdrawn from the class by the instructor. It is the Student's responsibility to contact the Instructor and explain any and all missed class time.**

Since attendance is so important a part of the learning experience it has become necessary to modify the grading system. Full Fall and Spring Semesters have typically about 15 weeks of classes depending on holidays and exams schedule. For regular classes that means about 13 weeks of educational activity aside from mid-term and finals. Someone missing 3 classes then has missed almost 25% of course content.

**Partial class attendance, arriving late or leaving early can result in a % loss of that day's attendance.** For all absences after the 3rd absence each absence will count as 2 classes missed. General Brazosport College Policies and Procedures apply to self-initiated course withdrawal and the time period within which that may occur. Please check with the current published College information for details, especially to determine the last date of withdrawal from a course.

## IX. COURSE REQUIREMENTS AND GRADING POLICY

### A. Grading:

Mid Term Exam	20%
Final Exam:	20%
Quizzes and/or Homework:	20%
Term Project	20%
Attendance and Participation	20%

### B. Scoring:

- A (90 - 100%) -- Unqualified and unsurpassed mastery of the learning outcomes.
- B (80 - 89.9%) -- Unqualified mastery of the learning outcomes.
- C (70 - 79.9%) -- Qualified mastery of the learning outcomes.
- D (60 - 69.9%) -- Mastery of the learning outcomes but with significant qualifications.
- F (0 - 59.9%) -- Has not mastered the learning outcomes.
- I (Incomplete) -- Failed to complete assigned components.

**Honest and serious participation in each of the five course elements is required to pass the course. A failing grade will be assigned regardless of the overall score if the student fails to complete any one of the following items:**

**(1) Complete the mid-term exam**



- (2) Submit a Term Project and/or Make Presentation**
- (3) Complete the final exam.**

**C. Testing:**

**A Mid Term Exam and a Final Exam are required.** A variety of quizzes or assignments in place of formal exams may be utilized as an equivalent at the discretion of the Instructor.

**D. Make-Up Policy:**

**A student will normally be given only 5 days in which to make up missed quizzes or assignments.** Students who miss class delay the ability of other students to receive timely feedback on their work. It is the responsibility of each student to contact the Instructor on the day following the absence and to make time to come in before the next class to clear up the missed quiz or assignment. **The Instructor is usually expected to give a score of zero to missed exams, quizzes or assignments and/or apply an appropriate penalty pursuant to the syllabus requirements.**

**X. STUDENT CONDUCT STATEMENT**

Students are expected to be aware of and follow the Brazosport College Student Code of Conduct. Students have violated the Code if they “fail to comply with any lawful directions, verbal or written, of any official at BC.” Lawful directions include precautions and requirements taken to prevent the spread of COVID-19 at Brazosport College. Students who do not follow safety requirements, including the wearing of a mask, may be removed from class by their instructor and referred to the Dean of Student Services.

**XI. COVID-19 STATEMENT**

At Brazosport College, all of us, including faculty, staff, and students, share a common goal this spring semester, to keep our classes running in the safest manner possible and avoid any disruption to your progress in achieving your educational and career goals. To that end, we ask and encourage you to conduct yourself in the following manner while on campus this semester:

- Every day, perform a self-health check prior to coming to campus and stay home if sick.
- To the greatest extent possible, maintain your distance between you and other students, faculty, and staff while on campus.
- Wear a properly fitted face covering over your mouth and nose while indoors on campus. If you do not have a mask, they will be available to you in all classrooms this spring.
- Practice good hygiene, washing your hands regularly and/or using hand sanitizer.
- The most effective way to protect yourself from Covid-19 is through vaccination. The vaccine is readily available and at no cost to you. Vaccine information and availability can be found at <https://brazosport.edu/coronavirus/vaccine/>.

If at any time this semester you begin to experience Covid symptoms, or if you are exposed to someone who has tested positive for Covid-19, please take the following steps:

- Stay home if you’re feeling sick and minimize your contact with others.

- Alert the College by completing the Covid-19 Exposure Report Form online at <https://brazosport.edu/coronavirus/report/>. Be sure to provide accurate contact information, including a working phone number that you will answer.
- After submitting the report, you will be promptly contacted by a member of our Rapid Response Team, who will ask you some specific questions about your situation and provide you with guidance moving forward.
- If it is determined that you should not come to class, your instructor will be notified. **Please know that your instructor will consider course adjustments and potential make-up work only if your case has been reported to Brazosport College, and they've been notified by our response team.** Your instructor will work with you to determine how to manage any make-up work.

The Community Health Network (CHN) Clinic at Brazosport College is located in BC Central B-Wing. While walk-ins are available, your visit will be easier if you pre-register by creating an account at [www.mychn.org](http://www.mychn.org). In addition to providing health and behavioral services, CHN also provides COVID vaccinations and testing. All insurance is accepted, and healthcare is provided on a sliding scale including no cost for those who need it.

Throughout the semester, please regularly check the College's Covid-19 information page at <https://brazosport.edu/coronavirus/>, where the latest updates and guidelines will be posted. As members of the BC community, all of us share a responsibility to each other to be as safe as possible.

## **XII. CAMPUS CLOSURE STATEMENT**

Brazosport College is committed to the health and safety of all students, staff, and faculty and adheres to all federal and state guidelines. The College intends to stay open for the duration of the semester and provide access to classes and support services on campus in the safest way possible. The College will also comply with lawful orders given by applicable authorities, including the Governor of Texas, up to and including campus closure. It is possible that on campus activities may be moved online and/or postpone if such orders are given.

## **XIII. STUDENT RESPONSIBILITIES**

Students are expected to fully participate in this course. The following criteria are intended to assist you in being successful in this course:

1. Understand the syllabus requirements
2. Use appropriate time management skills
3. Communicate with the instructor for absences and late arrivals
4. Complete course work **on time**, and
5. Utilize online components (such as Desire2Learn) as required.
6. **Participate in class discussions**
7. **Show respect for student and instructors**

### **A. Housekeeping:**

- 1) Keep the room ready for the next class. When you leave each evening, the room is to be returned to the condition it was in when you arrived, or better.
- 2) Keep it clean and place all trash in the proper containers before you leave.
- 3) Do not alter the computer or audio-visual electronics.

- 4) Improper use of computer and other equipment in violation of Brazosport College policies may result in penalties according to College rules.

#### **B. Expectations:**

- 1) You are largely responsible for your own success or failure as a student.
- 2) As a minimum, students are expected to read the assigned chapter(s) each week. Being prepared is a necessary part of your continuing education and a vital part of the construction industry.
- 3) We expect all assignments to be completed on time and to the best of your ability.
- 4) ***While we encourage cooperation with your fellow students, academic honesty is the standard; you are solely responsible for submitting your own work and not the work identical to another student (this is “collusion” and a violation of academic honesty)***
- 5) We expect and will demand adult behavior in the classroom, both physical and on-line. We expect to have fun and hope you do too.
- 6) **You are expected to abide by the Student Code of Conduct at all times and come to class prepared and alert. No sunglasses or sleeping in class will be allowed.**
- 7) If there is a problem with the material call upon the instructor first for help.
- 8) There are no bad questions. Always ask if you are unsure.

#### **C. Student Responsibilities:**

- 1) This is not a self-paced course but requires weekly interaction with the class and the instructor. Assignments such as term papers require a great deal of self-discipline to complete, as much of what is done is at your pace (within the timelines that the instructor has established in the syllabus) It is your responsibility to read, understand and follow the syllabus and other instructions and information provided by the instructor! **If you fail to submit assignment(s) or tests on time, the instructor has the option of not accepting the late work! If the instructor accepts late work, 20 points per day penalty will apply for any assignment, for a maximum time of 5 days. Additional deductions may apply based on meeting the requirements of the assignment or at the instructor discretion. No assignment will be accepted after 5 days unless the instructor deems special circumstances apply.** You should make every effort to stay on track with the assignments, as it is very difficult to “play catch-up.”
- 2) **If for any reason you should fall behind in their work, (illness, accident, temporary duty, company “turnaround”, etc.) contact the instructor immediately.**
- 3) You must complete the exams/papers and assignments prior to the end of the scheduled turn, or risk being graded zero for that work and run the risk of failure of the course.
- 4) Any “Instructor Approved” extensions for exams/papers and assignments must be completed on the date assigned by the instructor. The instructor may approve submittals, but they must be made prior to the end of the scheduled term (**FINAL EXAM**). Any extension approved by the instructor and not met by the student may risk being graded zero for that work and run the risk of failure of the course.
- 5) All forms of communication between students and course instructors will be conducted at a professional level. **Profanity, threats of violence, or acts of physical or verbal/argumentative intimidation will not be tolerated. Failure to maintain a professional demeanor during all interactions will result in security being alerted and may result in course failure or academic suspension. There will be no second chances for being disruptive or disrespectful in words or actions during class.**

- 6) Students who are found to have violated any of the behavioral expectations outlined in the syllabus or Brazosport College Student Guide “Code of Student Conduct” will be subject to disciplinary action.

**Penalties may include referral to the Dean of Student Services for prompt adjudication and may result in dismissal from class, a failing grade for the course, or other relevant penalties. There is zero tolerance for academic dishonesty or unprofessional behavior in this course.**

- 7) At times, life situations occur where you will need to make hard choices between getting a good grade in a course (or even finishing it) and other priorities in your life, such as a job, family, etc. It is up to each student to make those choices. Occasionally, one will have to make the commendable choice that job or family must take priority and then live with the consequences that has on your studies and GPA. The College has an ethical obligation to ensure that a level playing field is provided for all students, so those who make the hard choices do not get shortchanged by students who ask for extra time to get their schoolwork done when they have not made those hard choices.
- 8) Extensions/Incompletes are **NOT** a right, but a **VERY RARE** exception that are granted only in the most extraordinary of situations. If you feel that you will require an extension/incomplete (again, the exception, not the rule), it is your responsibility to contact the instructor **BEFORE THE END OF THE COURSE** and make this request. In most cases, written third party documentation will be required to support your request. It is at the discretion of the instructor whether an extension/incomplete will be granted and for what length of time it will be granted, with an absolute maximum extension period of 90 days.

#### **D. Student Computer Responsibilities:**

- 1) It is a fact of life that we must use computers to complete class work, develop a presentation and take some tests. You should have a computer, software, and Internet access at hand to do this. If you do not, at best consult with the Learning Services next to Library. There are numerous campus resources available to you.
- 2) **The default software being used is Microsoft Word for ALL text documents and Microsoft PowerPoint for presentations.** At a minimum, these programs for students are downloadable free from the [www.microsoft.com](http://www.microsoft.com) website.
- 3) “The computer ate my homework” is not an acceptable excuse. It is a fact of life that computers are not perfectly reliable, and those computers using Windows have a certain reputation. Users should learn how to survive and readily “SAVE” and recover from crashed programs and the need to reboot. When creating your own work, you should save the document after each page and learn how to recover from computer problems. If worse comes to worse, read the manuals.
- 4) The instructor generally cannot help you solve your computer problems. Exception – problems with SHEM files, in which case the Instructor will help to the best of his/her ability.
- 5) You are responsible for your own SPAM and viruses. No one should use personal computers, email, or the Internet for these courses without possessing their own anti-virus software. If you open a strange email and get your computer infected with a virus, it is your own doing and your own responsibility. You should learn how to block unwanted email.

**E Telecommunication Devices:**

- All electronic devices, including but not limited to cell phones, “Blackberry” e-mail type devices, and PDA’s **MUST** be turned completely off or placed on vibrate for work-related callouts. All electronic devices must be stored so that they are not visible in the classroom.
- **Smart Watches shall not be accessed at any time for any reason during the class period (clocks are available in the classroom) and the instructor will advise the time for breaks and class dismissal.**
- **CELL PHONES WILL NOT BE ALLOWED TO BE USED IN THE ROOM AS A CALCULATOR OR FOR ANY OTHER PURPOSE UNLESS APPROVED BY THE INSTRUCTOR!!!!!!** Calculators are for sale in the BC Bookstore to support math problems.
  - Cheating via use of telecommunications devices (or any other sources) such as smart watches, cell phones, etc., will result in an immediate ZERO for the test involved and may result in further penalties.
  - **Backpacks and other additional non-course materials carried into the classroom must be placed on the floor.**

**F. BC Computer Accounts:** Each student is expected to go to IT services and obtain a computer account, BEFORE the second class of the term. They can be reached at 979-230-3266. You may need to call for an appointment before class for evening classes. Improper use of computer accounts in violation of Brazosport College policies may result in penalties according to College rules. Be aware that ALL online activity is monitored and logged; you have NO right to privacy.

**G. College Website:** [www.brazosport.edu](http://www.brazosport.edu) you should learn to use the college website to find most student information. If you need to take computer classes to learn to use the internet or other computer programs, please check with LAC in E-201.

**H. Classroom Copyright:** An implicit copyright of original work not otherwise referenced from others exists for all class materials. Visual or audio recording of class activity is restricted to the College and Instructor. No class material or activity may be recorded or posted on the Internet except by approval of the Instructor.

**I. Notes on Schedule:** A general sixteen-week recommended schedule follows in this document. The instructor will adjust it to meet the details of the specific semester schedule, recognizing variances due to Brazosport College exam schedules, State and Federal Holidays and the availability of such items as a guest speaker.

**XIV. PROJECTS, ASSIGNMENTS, PORTFOLIOS, SERVICE LEARNING, INTERNSHIPS, ETC.**

A PowerPoint and oral presentation of 15 to 30 slides on a workplace accident that has occurred within the last 5 years from the National Transportation Safety Board, Chemical Safety Board or Occupational Safety and Health Administration or NIOSH FACE records. The presentation must specify what the response to the incident involved and any recommendations made AND YOU MUST RESEARCH TO FIND THE MOST CURRENT STATUS OF RECOMMENDATIONS.

The topics must be selected and approved by the instructor before the end of 3<sup>rd</sup> class, or one will be assigned.

### **Due Dates For Term Paper Projects:**

For all Fall and Spring Term Sixteen Week Classes: Term Project is due on or before Lesson 11 by the end of class, before midnight at the latest. An optional date/time may be assigned as determined by the instructor.

This due date is for your success so that if you have problems the Instructor can help you recover before end of term. If you wait until the last moment to complete the term project you can fail the course.

### **LATE PENALTIES APPLY:**

**-For the Term Project 20 points per day penalty will apply after midnight of Class 11 (or the assigned date and time by the Instructor). Additional deductions may apply based on the content and meeting syllabus requirements. No Term Project paper will be accepted after 5 days.**

General Guidelines for a successful Book Report or Research Paper or Slide Development and/or Slide Presentation includes but is not limited to:

#### ***Book Report/Research Paper Guidance***

- MUST be submitted in MS Word (No PDF, No Notes, etc.)
- Format is 12-point Font, Times New Roman, 1.5 line spacing and 1 inch margins all around and page numbers at bottom right
- FIRST page is the COVER Page (Include Name, Date, Semester, Instructor, Course, Report Title and Author, if applicable) and
- LAST page is the BIBLIOGRAPY page (Neither the FIRST page or the Last page count as part of the assignment)
- Use Spellcheck for spelling and grammar and sentence structure
- Paragraphs should include main points and complete sentences
- No more than ½ page of graphics for the assignment; no graphics or pictures allowed for assignments less than five pages
- Nor more than ½ page of quotes for the assignment; no quotes allowed for assignments less than five pages
- Do not use “quotes” for quotes. Use single space, block and indented one inch: For example: In his book *Beyond Belief*, Johnny Depp stated:  
    If I were to sail the Black Pearl around the  
    World in search of gold, diamonds, rubies, etc.
- Consult the Writing Center often for guidance!
- Consult the “TERM PAPER GUIDANCE DOCUMENT” in the “CONTENT” section of D2L

***Slide Format Guidance:***

- ✓ Use SHEM Master Slide with WHITE background
- ✓ Slide 1 is your COVER (Introductory) SLIDE and does NOT count as the assignment
- ✓ Slides should have 3-6 bullet points per slide
- ✓ Bullet points should have no more than 6-8 words per bullet point
- ✓ Slides should have page numbers at bottom right of page
- ✓ Heading on slides should be 32-36 point and BOLDFACE font
- ✓ Bullet Points in Body should be 22-24 point font
- ✓ Everything in Times New Roman
- ✓ Illustrations (graphics/pictures) support the main points of the slides
- ✓ Illustrations (graphics/pictures) is limited to 25% of the slide and is limited to no more than 25% of the slides in the assignment
- ✓ Last slide is your BIBLIOGRAPHY (References) SLIDE and does NOT count as part of the assignment)
- ✓ Slides should have most current up-to-date information on the subject
- ✓ Consult the Writing Center often for Guidance

***Slide Presentation Guidance:***

- Practice, Practice, Practice
- When presenting Each slide should communicate a key “take away” for audience (as the presenter you might say “The key take away from this slide is .....” or “Notice the trend in this graph, how it represents continuous improvement”
- Introduction and key points should be presented in a logical order
- Present more information than just read the slides (Very Important)
- Cite personal examples during presentation
- Establish eye contact with audience
- Engage audience in discussion
- State conclusions and/or recommendations clearly
- Answer audience questions sufficiently
- Consider your time limit that is set by the instructor!
- Practice, Practice, Practice
- Watch the YouTube Videos for presentation help under Content in D2L

**Also consult the “TERM PAPER GUIDANCE DOCUMENT” in the “CONTENT” section of D2L.**

**This must be original work not a duplication of work for another class.**

**XV. OTHER STUDENT SERVICES INFORMATION**

Information about the Library is available at <http://brazosport.edu/students/for-students/places-services/library/about-the-library/>

For assistance with online courses, an open computer lab, online and make-up testing, audio/visual services, and study skills, visit Learning Services next to the Library, call 979-230-3253, or visit <http://brazosport.edu/students/for-students/places-services/learning-services/>.

For drop-in math tutoring, the writing center, supplemental instruction and other tutoring including e-tutoring, visit the Student Success Center, call 979-230-3527, or visit <http://brazosport.edu/students/for-students/student-success-center/math-center/>.

To contact the Physical Sciences and Process Technologies Department call 979-230-3618.

The Student Services provides assistance in the following:

Counseling and Advising	979-230-3040
Financial Aid	979-230-3294
Student Life	979-230-3355

To reach the Information Technology Department for computer, email, or other technical assistance call the Helpdesk at 979-230-3266.



Get the information you need – when you need it. Click <http://geni.us/BRAZO> to install **BC Connect** on your mobile device to receive reminders, explore careers, map your educational plan, be in the know about events, find out about scholarships, achieve your goals and much more.



## STATE OF TEXAS WORKFORCE EDUCATION COURSE MANUAL REQUIREMENTS:



# WORKFORCE EDUCATION COURSE MANUAL

### WECM Course

#### Principles of Safety Engineering

CIP	Rubric	Number	Course Title	Status	Semester Credit Hrs	Min Cont Hrs	Max Cont Hrs
15.0701	OSHT	2401	Principles of Safety Engineering	Active	4	64	128

**Course Level:** Intermediate

**Course Description:** Methods to predict, eliminate, or reduce unsafe conditions at the design and construction stage utilizing engineering controls. Includes methods of analysis, prioritization, and implementation of control measures for potentially hazardous situations in the workplace.

**End-of-Course Outcomes:** Describe the safety engineering issues of a typical industrial workplace; evaluate blueprints to predict unsafe conditions for construction and other industrial sites; analyze the safety requirements for workers with disabilities; select applicable safety engineering requirements for equipment, automated lines, systems and/or processes as protective devices; employ safety engineering principles in designing a manufacturing facility; and develop engineering controls for unsafe conditions in a typical fabrication layout.

**Lab Recommended**

**Cross Reference(s):** CEU Course Section: OSHA Regulations - General Industry

**CIP Code Description:** 15.0701 (Occupational Safety and Health Technology/Technician)

**Year:** 2016