



**MANUFACTURING TECHNOLOGIES DIVISION
Central Campus**

ENTC 1347 - Safety and Ergonomics

CRN 70828 – Fall 2015

Central Campus - Room JBW 229B | 9:00AM – 11:00AM| Tuesdays
2 hour lecture course / 48 hours per semester/ 16 weeks / **Hybrid Course**

Instructor: Shawn Trumbo

Instructor Contact Information:

Houston Community College
1301 Alabama, JBW #119
Houston, TX 77004
713-718-6822
Shawn.trumbo@hccs.edu

Office hours:

Please feel free to contact me during my office hours concerning any problems that you are experiencing in this course. You do not need to wait until you have received a poor grade before asking for my assistance. Your performance in my class is very important to me. I am available to hear your concerns and just to discuss course topics. Feel free to contact me in my office or email me anytime.

Course Description:

Occupational Safety and Health Administration (OSHA) safety guidelines including electrical, chemical, and hazardous material safety. Ergonomic considerations to include repetitive motion, plant layout, and machine design. Industrial safety awareness, accident cost and prevention, and workman's compensation issues.

PREREQUISITE / COREQUISITE:

GUST 0339 (5th -7th Grade Reading)
ENGL 0300 or 0347
MATH 0306 or TECM 1301 (Industrial Math)

Course Student Learning Outcomes:

Upon completion, you will be able to:

1. Explain OSHA's history and role in general industry.
2. Understand worker's rights and responsibilities in general industry.
3. Recognize and summarize OSHA's safety guidelines and laws for general industry.
4. Identify workplace hazards.

5. Demonstrate the ability to avoid, prevent and control workplace hazards.
6. Understand OSHA's general reporting and recordkeeping rules and guidelines.

Learning Objectives:

The successful completion of these learning objectives will ensure a meaningful educational experience. You will:

1. Explain the idea of a safety culture and its importance in the construction crafts.
2. Identify causes of accidents and the impact of accident costs.
3. Explain the role of OSHA in job-site safety.
4. Explain OSHA's General Duty Clause and 1926 CFR Subpart C.
5. Identify OSHA's Top 10 – Most Accessed General Industry Standards
6. Recognize hazard recognition and risk assessment techniques.
7. Explain fall protection, ladder, stair, and scaffold procedures and requirements.
8. Identify struck-by hazards and demonstrate safe working procedures and requirements.
9. Identify caught-in-between hazards and demonstrate safe working procedures and requirements.
10. Define safe work procedures to use around electrical hazards.
11. Demonstrate the use and care of appropriate personal protection equipment (PPE).
12. Explain the importance of hazard communications (HazCom) and Material Safety Data Sheets (MSDSs).
13. Identify other construction hazards on your job site, including hazardous material exposures, environmental elements, welding and cutting hazards, confined spaces, and fires.

16 WEEK CALENDAR

| Week# | Dates | Holidays | Academic | BPR Unit |
|-------|--------------|---------------|-----------------------|----------|
| 1 | 8/24 - 8/30 | | 8/24 Classes begin | |
| 2 | 8/31 - 9/6 | | | |
| 3 | 9/7- 9/13 | 7th Labor Day | 9/8 ODR 9/9 LD 70% | |
| 4 | 9/14 - 9/20 | | 9/15 LD 25% | |
| 5 | 9/21 - 9/27 | | | |
| 6 | 9/28 - 10/4 | | | |
| 7 | 10/5 - 10/11 | | | |
| 8 | 10/12-10/18 | | | Mid-Term |
| 9 | 10/19-10/25 | | | |
| 10 | 10/26-11/1 | | 10/30 LD withdraw | |
| 11 | 11/2-11/8 | | | |

| | | | | |
|----|-------------|---|--|-------|
| 12 | 11/9-11/15 | | | |
| 13 | 11/16-11/22 | | | |
| 14 | 11/23-11/29 | 11/26-11/27 Thanksgiving, No Night Classes on 11/25 | | |
| 15 | 11/30-12/6 | | | |
| 16 | 12/7-12/13 | | | Final |
| | | | | |
| | | | | |

Grades are available to students after 12/18/2015

Instructional Methods:

As an instructor, I want my students to be successful. I feel that it is my responsibility to provide you with knowledge concerning safety by modeling good teaching strategies that allow you to connect the information that you learn in this course to the real world.

As a student wanting to learn about safety and ergonomics, it is your responsibility to read the assigned chapters in the textbook, submit assignments on the due dates, study for the exams, participate in face-to-face classroom activities, utilize the online component of the course, and enjoy yourself throughout the experience.

Student Assignments:

Assignments have been developed that will enhance your learning. To better understand a topic, you will be given assignments on key information that you will need to remember for your success in safety. **To complete and pass this course you will be required to successfully complete the following on time:**

All Assignments & Online Quizzes

Midterm Exam

Final Exam

Assessments:

| | |
|---|------|
| Assignments & quizzes | 30% |
| Mid Term Exam | 30% |
| Final Exam | 30% |
| Instructor's discretion (Attendance, attitude, class participation, etc.) | 10% |
| Final Grade | 100% |

Instructor Requirements:

As your Instructor, it is my responsibility to:

- Provide the grading scale and detailed grading formula explaining how student grades are to be derived
- Facilitate an effective learning environment through class activities, discussions, and lectures
- Description of any special projects or assignments
- Inform students of policies such as attendance, withdrawal, tardiness and make up procedures
- Provide the course outline and class calendar which will include a description of any special projects or assignments
- Arrange to meet with individual students as needed

To be successful in this class, it is the student's responsibility to:

- Attend class and participate in class discussions and activities
- Read and comprehend the textbook
- Complete the required assignments and exams
- Ask for help when there is a question or problem
- Keep copies of all paperwork, including this syllabus, handouts and all assignments

Program/Discipline Requirements:

HCC Grading Scale

Please see the student Handbook

<http://www.hccs.edu/district/students/student-handbook/>

Grading Criteria:

I will conduct quizzes, exams, and assessments that you can use to determine how successful you are at achieving the course learning outcomes (mastery of course content and skills) outlined in the syllabus. If you find you are not mastering the material and skills, you are encouraged to reflect on how you study and prepare for each class. I welcome your observations on what you discover and may be able to assist you in finding resources that will improve your performance.

Instructional Materials:

TEXT: The Basics of Occupational Safety (2nd Edition)

David L. Goetsch

ISBN 13: 978-0133496079

ISBN 10: 0133496074

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A computer with internet access.

To access the online component of this class go to:

<https://eo2.hccs.edu>

This will take you to the login page. Please follow the directions give there to log in. After you login you should see this course on your home page.

HCC Policy Statements:

Access Student Policies on the web site:

<http://www.hccs.edu/district/about-us/procedures/student-rights-policies--procedures/>

HCC is committed to provide a learning and working environment that is free from discrimination on the basis of sex which includes all forms of sexual misconduct. Title IX of the Education Amendments of 1972 requires that when a complaint is filed, a prompt and thorough investigation is initiated. Complaints may be filed with the HCC Title IX Coordinator available at 713 718-8271 or email at oie@hccs.edu.

The instructor reserves the right to make any changes in the syllabus if the circumstances require it.