ESCİ Selected Topics - OSHA/RCRA HAZWOPER Refresher  
ESCİ 4490.007    CRN 201901.83923  
Department of Physical and Environmental Science  
Spring 2019

A. COURSE INFORMATION

Course number/section:   ESCI 4490.007 (1 Credit-Hour)  
Class meeting time:     8:00 am-5:00 pm Friday, April 5, 2019  
Class location:         NRC 1101 & NRC 1026  
Official Room Assignment: TBD – This is a published National Spill Control School course combined with attendees from industry and government. The course will meet at the NSCS classroom and storeroom (NRC 1101 and NRC 1026) due to the large amount of equipment needed for the course and for hands-on exercises.  
Course Website:  None

B. INSTRUCTOR INFORMATION

Instructor:     H.A. Tony Wood  
Office location:  6300 Ocean Drive, NRC Ste. 1100, Corpus Christi, TX 78412  
Office hours:   This is a one-day 8-hour course from 8 am until 5 pm. Available office hours are during hourly course breaks and over the one-hour lunch break. Students wanting to meet privately with the instructor should indicate that prior to the breaks.  
Telephone:      (w) 361-825-3335  
e-mail:         tony.wood@tamucc.edu  
Appointments: call above phone number

C. COURSE DESCRIPTION

Catalog Course Description
This is an 8-hour, one day, HAZWOPER Refresher course. It is offered for students who have completed ESCI 4370 or ESCI 5370 or ESCI 6370 at TAMU-CC, or equivalent HAZWOPER training at other institutions, within the last 2 years. The primary objective of this course is to maintain professional skills and the OSHA HAZWOPER Certification that allows individuals to safely work with hazardous wastes or emergency response. Students will refresh their knowledge and understanding of hazardous waste operations and emergency or hazardous materials response situations. Students will learn of new OSHA regulations, guidance, and compliance issues that have occurred over the last year.

Extended Course Description
This course focuses on non-site-specific training for personnel on CERCLA/Superfund sites, RCRA corrective actions, and other activities as required by 29 CFR 1910.120 (e) (4). It includes information on safety and situation management during crisis situations, incident command, compliance inspections, environmental crimes and liabilities, enforcement, public
and media relations, interagency liaison, and other topics important to hazardous waste workers and emergency responders. This course is recommended for students expecting to enter the environmental workforce or internships within the next year. This OSHA certification course should be repeated annually and it may be repeated for credit at TAMU-CC.

**HAZWOPER Refresher Classroom Topics**

- HAZWOPER Training Requirements
- OSHA Overview
- New Regulations and Safety Guidance
- Principles of Safety Management
- Incident Command Systems
- Site Communications for Safety
- Control Zones
- Decontamination
- Site Safety Plans
- Job-Site Safety Hazard and Risk Analysis
- Methods of Waste Disposal
- Regulatory Contacts and Other Sources of Information
- Public Information and Media Communications
- Case Studies of Relevant Incidents

This 1 credit-hour ESCI course is an OSHA HAZWOPER Annual Refresher. It has been developed to accommodate the needs of students who completed the basic 40-hour HAZWOPER course at TAMU-CC or at other institutions over 1 year ago. Students who are not yet ready to enter the job market, but want to maintain their annual HAZWOPER professional competency and certification should take this course. Students who took the 40 Hour HAZWOPER course more than 2 years ago should retake the ESCI 4370 HAZWOPER course.

**D. PREREQUISITES, COREQUISITES, and EXCLUSIONS**

- **Prerequisites:**
  1. ESCI 4370 or ESCI 5370 are a prerequisite. The student may have completed a valid equivalent 40-Hour HAZWOPER course from a university, community college, or a recognized organization or institution. The student must provide a copy of their HAZWOPER completion certificate to the instructor or the academic counselor for acceptance. It must also be presented to the instructor at the beginning of the course. Online HAZWOPER courses are not considered an acceptable equivalent.

- **Co-requisites:**
  1. Attendance is mandatory. This is an OSHA certification course requiring 8 hours of attendance. Students who miss any portion of the class are responsible for making up the time prior to award of the HAZWOPER Annual Refresher certification. Any course hours not completed prior to the end of the semester will be given an incomplete (I) grade. If the time is not made up during the following semester the grade will be converted to an “F”.
  2. One examination will be given during the course.
  3. The course may include guest speakers representing industrial, regulatory, or spill
response organizations or specialized environmental issues. Students will be responsible for material covered by these speakers and it may be included on exams.

- **Exclusions:**
  1. Students registering for this course should have completed a HAZWOPER course, (ESCI 4370 or ESCI 5370 or equivalent) between 10 months and 24 months previously. This course is not recommended for other students.

**E. REQUIRED TEXTBOOK(S), READINGS AND SUPPLIES**

There is no new textbook for this course. Guidance, text materials, websites, and downloadable reference and software programs will be provided by the instructor. If the student does not have a HAZWOPER textbook then they should download the following Adobe document:


Other recommended and free downloadable software includes:
- ALOHA
- CAMEO
- FEMA ICS 100
- FEMA ICS 700
- MARPLOT
- WISER

**Supplies**

Supplies are provided.

**F. STUDENT LEARNING OUTCOMES AND ASSESSMENT**

Assessment is a process used by instructors to help improve learning. It is an essential tool for effective learning and it provides feedback to students and instructors. A critical step in this process is making clear the course’s student learning outcomes that describe what students are expected to learn to be successful in the course. The student learning outcomes for this course are listed below. By collecting data and sharing it with students on how well they are accomplishing these learning outcomes students can more efficiently and effectively focus their learning efforts. This information can also help instructors identify challenging areas for students and adjust their teaching approach to facilitate learning.

By the end of this course, students should be able to identify:

1. The purposes of OSHA, USEPA, USCG, and NIOSH and their roles in regulating the environmental, health, and occupational safety considerations of the workplace;
2. The ICS organizational structure;
3. Workplace hazards and risks, and mitigation procedures to prevent accidents or injuries;
4. Hazardous materials, their hazards, their routes of entry, symptoms of exposure, and appropriate administrative or engineering controls and personal protective measures;
5. The hazards that may occur when reactive compounds and mixtures are improperly stored or managed;
6. The essential elements of establishing effective site controls including the establishment of safe work zones and decontamination procedures;
7. How to develop and use site health and safety plans (HASP);
8. How to implement response procedures for site or personnel emergencies or hazardous materials exposures.

Upon successful completion of the course, each student will receive a Certificate of Completion for this HAZWOPER Annual Refresher course from the National Spill Control School, Texas A&M University-Corpus Christi.

G. INSTRUCTIONAL METHODS AND ACTIVITIES

This is an OSHA recognized and industrially oriented safety course. Students should be able to assess all hazards and mitigate those hazards. Hazards may exist in the form of mechanical, thermal, electrical, acoustical, chemical, and biological hazards. Spill response equipment and heavy weights may also represent hazards. Students must wear appropriate personal protective equipment. Protective gloves and clothing should be worn whenever working with fuel, oil, and grease. Closed toe shoes must be worn during all class periods that involve working with response equipment.

H. MAJOR COURSE REQUIREMENTS AND GRADING

• Course Attendance and Participation 30%
• Assignments and Certifications 30%
• Course Exam 40%

I. COURSE CONTENT/SCHEDULE

• Regulatory Overview
• Communications
• Site Control at Hazardous Waste And Hazardous Materials Incident Sites
• Decontamination
• Hazard Recognition And Risk Analysis
• Site Characterization
• Safety Planning
• Medical Surveillance
• Hazardous Chemical Awareness
• Hazardous Waste Management
• Personal Protective Equipment and Respiratory Protection
• Air Monitoring
• Confined Space Entry
• Heat And Cold Stress
• Emergency Procedures

This course is scheduled for a one day 8-hour presentation. The content is generally identified by OSHA but it may be customized to the audience and for specific employers. The schedule is intended to serve as general guidance. Weather, student abilities, extended discussions on specific and current topics, or other factors may result in adjustments to this schedule. If changes in this course schedule become necessary they will be announced to the class by the Instructor.

J. COURSE POLICIES

Attendance/Tardiness
OSHA mandates that 8 hours of instruction must be completed for this OSHA HAZWOPER Annual Refresher certification course. Any missed time must be made up through special arrangements with the instructor. Students seeking HAZWOPER certification for this OSHA mandated training MUST attend all 8 hours of class. Any students who miss any course hours must attend make-up sessions prior to being awarded a grade or a certificate of completion. The student must schedule any required make-up course sessions or exams with the instructor.

Late Work and Make-up Exams
All exams, assignments, and make-up work must be completed by the last scheduled class day of the semester. A grade of incomplete will be assigned if course work is not completed and it will have to be completed during the next regular semester.

Extra Credit
No extra credit is permitted in this course.

Cell Phone & Laptop Use
Students may bring electronic devices to this class and some will be useful for certain class exercises. If a student brings electronic devices then the equipment should be protected by a waterproof bag or case. The instructors do not have any responsibility for such equipment. Texting and voice calls should not be conducted during the instructional periods but are allowed during breaks.

Consumables in Class
Food or beverages are acceptable. Smoking, chewing, and vaping are not acceptable.

Missed Exams
All exams, assignments, and make-up work must be completed by the last scheduled class day of the semester. A grade of incomplete will be assigned if course work is not completed and it will have to be completed during the next regular semester.

Participation
Students are expected to behave as if they were an integral part of a spill response team.
Safety
This is a safety course. There are no field exercises but students are expected to behave safely in the classroom and follow standard classroom courtesies. Emergency procedures will be briefed by the instructor at the beginning of the class.

K. COLLEGE AND UNIVERSITY POLICIES

• Academic Integrity (University)
  University students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, falsification, forgery, complicity or plagiarism. (Plagiarism is the presentation of the work of another as one’s own work.) In this class, academic misconduct or complicity in an act of academic misconduct on an assignment or test will result in a failing grade.

• Classroom/Professional Behavior
  Texas A&M University-Corpus Christi, as an academic community, requires that each individual respect the needs of others to study and learn in a peaceful atmosphere. Under Article III of the Student Code of Conduct, classroom behavior that interferes with either (a) the instructor’s ability to conduct the class or (b) the ability of other students to profit from the instructional program may be considered a breach of the peace and is subject to disciplinary sanction outlined in article VII of the Student Code of Conduct. Students engaging in unacceptable behavior may be instructed to leave the classroom. This prohibition applies to all instructional forums, including classrooms, electronic classrooms, labs, discussion groups, field trips, etc.

• Statement of Civility
  Texas A&M University-Corpus Christi has a diverse student population that represents the population of the state. Our goal is to provide you with a high quality educational experience that is free from repression. You are responsible for following the rules of the University, city, state and federal government. We expect that you will behave in a manner that is dignified, respectful and courteous to all people, regardless of sex, ethnic/racial origin, religious background, sexual orientation or disability. Behaviors that infringe on the rights of another individual will not be tolerated.

• Deadline for Dropping a Course with a Grade of W (University)
  The grade of W will be assigned to any student officially dropping a course. Please consult with the instructor before you decide to drop to be sure it is the best thing to do. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. Should dropping the course be the best course of action, visit the Office of the University Registrar for the Course Drop Form that must be submitted. No student is eligible to receive a W without completing the official drop process by this deadline. Please consult the Academic Calendar (http://www.tamucc.edu/academics/calendar/) for the last day to drop a course.
• **Grade Appeals (College of Science and Engineering)**
  As stated in University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules website at [http://www.tamucc.edu/provost/university_rules/index.html](http://www.tamucc.edu/provost/university_rules/index.html), and the College of Science and Engineering Grade Appeals webpage at [http://sci.tamucc.edu/students/GradeAppeal.html](http://sci.tamucc.edu/students/GradeAppeal.html). For assistance and/or guidance in the grade appeal process, students may contact the chair or director of the appropriate department or school, the Office of the College of Science and Engineering Dean, or the Office of the Provost.

• **Disability Services**
  The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please call (361) 825-5816 or visit Disability Services in Corpus Christi Hall 116.

  If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.

  [http://disabilityservices.tamucc.edu/](http://disabilityservices.tamucc.edu/)

• **Statement of Academic Continuity**
  In the event of an unforeseen adverse event, such as a major hurricane and classes could not be held on the campus of Texas A&M University–Corpus Christi; this course would continue through the use of Blackboard and/or email. In addition, the syllabus and class activities may be modified to allow continuation of the course. Ideally, University facilities (i.e., emails, web sites, and Blackboard) will be operational within two days of the closing of the physical campus. However, students need to make certain that the course instructor has a primary and a secondary means of contacting each student.
4 Other Important Policies

Material covered in this course includes training required by the Occupational Safety and Health Administration (OSHA) for personnel working in emergency response activities as described in 29 CFR 1910.120 and OSHA Publication 3172. OSHA regulates the safety and health of employees involved in response operations in any emergency response activities involving oil and other hazardous substances. While students are not employees, they will be learning how to perform safely and how to manage safe work practices of others after graduation. Students should always set a good example and should not engage in any activity when it is beyond their capacity to complete the activity safely. Whether a disability or simply a physical limitation, students must act safely and communicate their personal situation to the instructor.

L. OTHER INFORMATION

• Academic Advising
  The College of Science & Engineering requires that students meet with an Academic Advisor as soon as they are ready to declare a major. The Academic Advisor will set up a degree plan, which must be signed by the student, a faculty mentor, and the department chair. Meetings are by appointment only; advisors do not take walk-ins. Please call or stop by the Advising Center to check availability and schedule an appointment. The College’s Academic Advising Center is located in Center for Instruction 350 or can be reached at (361) 825-3928.

GENERAL DISCLAIMER

The instructor(s) reserve the right to modify the information, schedule, assignments, deadlines, and course policies in this syllabus if and when necessary. Any such changes will be announced in a timely manner during regularly scheduled lecture periods.