**BARTON COMMUNITY COLLEGE**

**COURSE SYLLABUS**

**Fall 2013**

# **GENERAL COURSE INFORMATION**

Course Number: OSHA 1007

Course Title: Guide to Industrial Hygiene

Credit Hours: 2

Prerequisite: None

Division/Discipline: Technical Education Division

Course Description: This course is designed for those interested in increasing knowledge of industrial hygiene practices and relatedOccupational Safety and Health Administration (OSHA) regulations and procedures. Topics include permissible exposure limits, OSHA health standards, respiratory protection, engineering controls, hazard communication, and sampling. Activities are focused on health hazard recognition and the use of OSHA standards and Safety and Health programs.

# **CLASSROOM POLICY**

Students and faculty of Barton Community College constitute a special community engaged in the process of education. The College assumes that its students and faculty will demonstrate a code of personal honor that is based upon courtesy, integrity, common sense, and respect for others both within and outside the classroom.

The College reserves the right to suspend a student for conduct that is detrimental to the College's educational endeavors as outlined in the College catalog.

Plagiarism on any academic endeavors at Barton County Community College will not be tolerated. Learn the rules of, and avoid instances of, intentional or unintentional plagiarism.

Anyone seeking an accommodation under provisions of the Americans with Disabilities Act should notify Student Support Services. Additional information about academic integrity can be found at the following link:

<http://academicintegrity.bartonccc.edu/>

# **COURSE AS VIEWED IN THE TOTAL CURRICULUM**

The purpose of Guide to Industrial Hygiene course is intended to increase knowledge of OSHA regulations related to industrial hygiene as well as relevant industrial hygiene practices and procedures. Specific topics such as permissible exposure limits, respiratory protection, engineering controls, hazard communication, sampling instrumentation, hearing conservation, workplace health program and other industrial hygiene issues will be addressed. This course is recommended for those with the responsibility of managing safety and health in the workplace, safety committee members, and other personnel responsible for safety.

The transferability of all college courses will vary among institutions, and perhaps even among departments, colleges, or programs within an institution. Institutional requirements may also change without prior notification. It is the student's responsibility to obtain relevant information from intended transfer institutions to insure that the courses the student enrolls in are the most appropriate set of courses for the transfer program.

# **ASSESSMENT OF STUDENT LEARNING**

Barton Community College is committed to the assessment of student learning and to quality education. Assessment activities provide a means to develop an understanding of how students learn, what they know, and what they can do with their knowledge. Results from these various activities guide Barton, as a learning college, in finding ways to improve student learning.

## Course Outcomes and Core Competencies

1. Define terms relating to OSHA health requirements.
   1. Describe toxicology
   2. Distinguish between ionizing and non-ionizing radiation.
   3. Define the hazards associated with asbestos, silica, and lead.
   4. Determine the Action Level for a given chemical.
   5. Explain Ceiling Level value and its uses.
   6. Define Molecular Weight and describe how it’s used in formulas.
2. Identify potential health hazards in the workplace.
   1. Conduct a hazardous assessment of a workplace.
   2. List the possible corrections for the hazard assessment.
   3. Interpret an Exposure Assessment.
   4. Determine appropriate ventilation procedures.
3. Perform basic health hazard evaluations using OSHA sampling procedures.
   1. Calculate the Time Weighted Average (TWA) for chemical exposure, and noise.
   2. Compute noise level readings.
   3. Analyze air contaminant samplings.
   4. Convert parts per million (ppm) to milligrams per cubic meter, and milligrams per cubic meter to ppm.
   5. Determine the Threshold Limit Value (TLV) and Short-Term Exposure Limit (STEL) for chemical hazards found in workplaces.
   6. Explain and use the mixture rule formula.
   7. Conduct a Job Hazard Analysis (JHA).
4. Recommend suitable strategies for controlling hazardous conditions.
   1. Develop engineering, administrative, and personal protective equipment control measures to eliminate the hazards.
   2. Explain OSHA standards for performing duties around blood borne pathogens.
   3. Using ergonomic principles assess a work station.
5. Describe the elements required for an effective workplace safety and health program.
   1. Define the process for creating, implementing, and enforcing a worker safety program.
   2. Determine what OSHA records must be maintained and length of retention.
   3. Distinguish and classify permit required confined spaces from non-permit required confined spaces.
6. **INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS**

# **TEXTBOOKS AND OTHER REQUIRED MATERIALS**

# **REFERENCES**

# **METHODS OF INSTRUCTION AND EVALUATION**

# **ATTENDANCE REQUIREMENTS**

1. **COURSE OUTLINE**