

Course Title: Welding Safety and/or OSHA 10 or 30

Credit Hours: 1-3

Development Date: 12/4/2020

Description: Through a variety of classroom and/or lab learning and assessment activities, students in this course will: explain job/site safety and precautions for job/site hazards; determine the uses of personal protective equipment (PPE); identify the safety equipment and procedures related to safe work practices and environment; identify fire prevention and protection techniques; explore Hazardous Communications (HazCom) including Safety Data Sheets (SDS).

Developers:

- Barton Community College - Mary Foley, Wade Morris
- Butler Community College – Matthew Galbraith
- Coffeyville Community College – Heather Pollet, Scott Hammer, Todd Madl
- Cowley Community College – Bob Moffatt
- Flint Hills Technical College – Brice Dallke
- Fort Scott Community College – Davis Oehme
- Garden City Community College – Kurt Wenzel, Devin Wackerla
- Highland Community College – Nathan Smith, Lucas Hunziger
- Hutchinson Community College – Greg Siefert
- Independence Community College – Jaicey Gillum
- Johnson County Community College – Richard Fort, Scott Crompton
- Labette Community College – Travis Brumback
- Manhattan Area Technical College – Thomas Mudd
- Neosho County Community College – Curtis Hughes, Blaine Crellin
- North Central KS Technical College – Kyle Kopsa, Dillon Bell, Jennifer Brown
- Northwest KS Technical College – Ben Schears, Shea Vrbka, Brad Wagoner, Michael Zimmerman
- Pratt Community College – Daryl Lucas
- Salina Area Technical College – Eric Vannoy
- Washburn Institute of Technology - Nicholas Hunter
- Wichita State University Campus of Applied Sciences and Technology – Joe Kean

KBOR Facilitators: Lisa Beck, Charmine Chambers, Tobias Wood, April Henry

External Standards

- 1) OSHA 10-HOUR GENERAL INDUSTRY DESIGNATED TRAINING TOPICS The 10-hour General Industry Outreach Training Program is intended to provide an entry level general industry workers broad awareness on recognizing and preventing hazards on a general industry site. The training covers a variety of safety and health hazards which a worker may encounter at a general industry site. OSHA recommends this training as an orientation to occupational safety and health. Workers must receive

additional training on hazards specific to their job. Training should emphasize hazard identification, avoidance, control and prevention, not OSHA standards. Learning objectives on many of these topics are on the 10-hour CD-ROM which is distributed in the train-the-trainer class, and available for download at the Outreach Training Program website. Instructional time must be a minimum of 10 hours. Break down of the topics as follows: Mandatory (M:1 hour) - 6 hours (left column): Six topics to be taught, for one hour each Elective (E-2 hours) - 2 hours (right column top): Choose at least two of these topics to teach, for a minimum of one-half hour each. Must cover at least two hours. Optional (O-2 hours) - 2 hours (right column bottom): Teach any other construction industry hazards or policies and/or expand on the mandatory or elective topics, minimum of one-half hour each.

- M1.a - Introduction to OSHA
- M1.b - Walking and Working Surfaces, Subpart D - including fall protection
- M1.c - Exit Routes, Emergency Action Plans, Fire Prevention Plans, and Fire Protection, Subpart E & L
- M1.d - Electrical, Subpart S
- M1.e - Personal Protective Equipment, Subpart I
- E2.a - Hazardous Materials, Subpart H
- E2.b - Materials Handling, Subpart N
- E2.c - Machine Guarding, Subpart O
- E2.d - Introduction to Industrial Hygiene, Subpart Z
- E2.e - Bloodborne Pathogens, Subpart Z
- E2.f – Ergonomics
- E2.g - Safety and Health Program
- O2.a - General industry hazards or policies and/or expand on the mandatory or elective topics

Competencies:

1) Explain job/site safety and precautions for job/site hazards.

Domain: Cognitive Level: Synthesis

External standards:

- M1.a - Introduction to OSHA
- E2.g - Safety and Health Program
- O2.a - general industry hazards or policies and/or expand on the mandatory or elective topics

Demonstrate competence:

- Written or oral analysis, OR
- Comply with the OSHA 10 General Industry Outreach Training Program

Performance will be successful when the student's:

- analysis identifies a task or job to be performed
- analysis includes a list of possible hazards related to the task
- analysis includes a list of precautions that need to be taken to safely perform tasks

2) Determine the uses of personal protective equipment (PPE).

Domain: Cognitive Level: Evaluation

External standards:

- M1.e - Personal Protective Equipment, Subpart I

Demonstrate competence:

- Written or oral analysis, OR
- Comply with the OSHA 10 General Industry Outreach Training Program

Performance will be successful when the student:

- describes the type of equipment
- describes the purpose of the equipment
- describes the benefit of equipment

3) Identify the safety equipment and procedures related to safe work practices and environments.

Domain: Cognitive Level: Analysis

External standards:

- M1.a - Introduction to OSHA
- M1.b - Walking and Working Surfaces, Subpart D - including fall protection
- E2.b - Materials Handling, Subpart N
- E2.c - Machine Guarding, Subpart O
- E2.g - Safety and Health Program
- O2.a - General industry hazards or policies and/or expand on the mandatory or elective topics

Demonstrate competence:

- Written or oral analysis, OR
- Comply with the OSHA 10 General Industry Outreach Training Program

Performance will be successful when the student:

- describes industry standards applicable to walkways and working surfaces
- describes industry standards fire hazards, protection and plans
- describes industry standards electrical hazards, protections and plans
- describes industry standards applicable to machine guarding
- identifies safe lockout and tagout practices
- describes industry standards applicable to lifting
- explains what assured grounding is
- explains when GFCI is needed on a site

4) Identify fire prevention and protection techniques.

Domain: Cognitive Level: Analysis

External standards:

- M1.c - Exit Routes, Emergency Action Plans, Fire Prevention Plans, and Fire Protection, Subpart E & L
- M1.d - Electrical, Subpart S
- E2.a - Hazardous Materials, Subpart H
- E2.b - Materials Handling, Subpart N
- E2.g - Safety and Health Program
- O2.a - General industry hazards or policies and/or expand on the mandatory or elective topics

Demonstrate competence:

- Written or oral analysis, OR

- Comply with the OSHA 10 General Industry Outreach Training Program
- Performance will be successful when the student:
- interprets the fire classification system
 - identifies the three components of a fire triangle
 - describes the purpose of various fire extinguishers
 - details fire hazard potentials and system for preventing them

5) Explore Hazardous Communications (HazCom) including Safety Data Sheets (SDS).

Domain: Cognitive Level: Analysis

External standards:

- E2.a - Hazardous Materials, Subpart H
- E2.b - Materials Handling, Subpart N
- O2.a - general industry hazards or policies and/or expand on the mandatory or elective topics

Demonstrate competence:

- Written or oral analysis, OR
- Comply with the OSHA 10 General Industry Outreach Training Program

Performance will be successful when the student:

- references appropriate SDS
- identifies the various sections of an SDS and its purpose
- identifies the section and numbering of a container labeling system