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Welding I



Cluster: Architecture and Construction

Pathway: Welding

Course Description:

This course is designed to provide all students with the basic knowledge and safe operating skills needed to demonstrate proper set of equipment in oxyfuel and shielded metal arc welding (SMAW). In oxy-fuel area of study students will create accurate cuts and perform washing and gouging procedures. Students will learn to critique their work pieces by welding codes, identifying imperfections, common test methods, and evaluate setups to determine proper setup of work and equipment. In SMAW students will learn and model proper safety and learn to make judgment calls in selection of electrodes and metal preparation to create beads and fillet welds using various rods. Minimum performance requirements for this course are based on successful student completion according to the American Welding Society (AWS) and the National Center for Construction Education and Research Center (NCCER) Occupation Standards. Students who successfully complete the course in accordance with NCCER standards are eligible for registration with the NCCER National Craft Worker Registry.

CAREERS. WORK ETHICS AND HISTORY OF SMAW AND OXYFUEL WELDING PROCEDURES.

Students will explore different types of careers that are available in the welding industry and list careers they judge as meaningful. They will evaluate their own skill level and determine skills needed to reach career choices through research. Students will learn the importance of good work ethics in the workplace and model that behavior. Students will learn the history of SMAW and Oxyfuel welding comparing techniques of the past to modern day techniques and equipment.

EOPA Statement

Students are encouraged to select a pathway beginning in ninth grade that is connected to their college and career goals. This course is one of three courses in the *name of pathway* pathway in the CTAE department. At the conclusion of the third pathway course, students will be required to take an End of Pathway Assessment. This assessment provides students an opportunity to demonstrate what they have learned by completing an on-line, nationally recognized exam. Students who complete a pathway and earn an industry credential by passing the assessment will receive a graduation cord to signify their achievement.

Course of Study:

Topic:	Standards:
Employability Skills	AC-WI-1
	Demonstrate employability skills required by business and industry.
Safety	AC-WI-2
	Demonstrate proficiency in Arc Welding & Oxyfuel Safety
Oxy-fuel Cutting	AC-WI-3
	Identify and use oxyfuel cutting equipment with acetylene and alternate
	fuels (propane).
Blueprints	AC-WI-4
	Identify and use welding symbols and read detailed drawings.
Welding Procedures	AC-WI-5
	Identify and explain welding procedures and testing.
Shielded Metal Arc Welding	AC-WI-6
	Demonstrate knowledge of basic shielded metal arc welding (SMAW).

Gas Metal Arc Welding	AC-WI-7 Demonstrate knowledge of basic shielded metal arc welding (SMAW)	
Plasma Arc Cutting	AC-WI-8 Demonstrate knowledge of plasma arc cutting.	
Skills USA	AC-WI-9 Examine how SkillsUSA is a co-curricular part of career and technical education through leadership development, school and community service projects, and competitive events.	

Literacy Standard for Course:

In addition to content standards, students will be responsible for showing mastery of the Common Core literacy standards. These standards will be taught using reading and writing activities related to the content area. Reading materials may include novels, technical manuals, articles or other appropriate materials as determined by the instructor.

P.R.E.P Academy Grading Policy:

Daily Grades/In Class Assignments	25%
Tests	20%
Projects/Lab Work	35%
Benchmark (Final)	20%

Make Up Work:

Make up work will follow the school guidelines set forth in the Student Handbook.

Texthook

Students will not be issued a textbook for this class, but one will be available for classroom use.

Pearson/Welding Level I

Classroom Rules/Conduct:

- 1. Come to class on time with the proper materials.
- 2. Stay on task at all times during class.
- 3. Ask for permission before you do anything.
- 4. Keep hands, feet, and object to yourself.
- 5. Follow directions when they are given.
- 6. Wear appropriate clothing at all times

Computer Use:

Students will be required to access the Internet for some assignments and projects. Each student must have an Acceptable Use Policy (AUP) on file at the school. All policies in the AUP will be followed.

Students should only use the Internet when instructed for classroom purposes. Students who are caught downloading/streaming music, on inappropriate websites, attempting to bypass the server, or participating in other questionable activities will receive a referral and their computer privileges may be revoked.

Additional Information:

Always have something to write with and write on... daily.

I am an advisor for SKILLS USA. SKILLS USA is a non-profit organization in which students are allowed to participate. The club dues are \$20.00.

Syllabus and Contact Information

I understand that the rules and requirements listed in the syllabus. I understand that my failure to uphold these rules and regulations could result in detention, parent conference, and/or referral to the administration.

Student's Name:
Student's Signature:
I understand the guidelines set in the syllabus. My child has read and fully understands the requirements in the class. I will give my child the appropriate support and guidance during the course.
Parent's Name:
Parent's Signature:
Please List the best way to be contacted during the day and evening hours.
Home Phone:
Cell Phone:
Work Phone:
E-mail: