

BOONE CAREER AND TECHNICAL CENTER ADULT WELDING SYLLABUS

SCHOOL: Boone Career and Technical Center
INSTRUCTOR: Brandon Geer
office hours 2:00-3:00PM M-F

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(304)369-4586

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COURSE DESCRIPTION Welding is a leader of today's high tech approach to manufacturing. Students will learn several different welding processes including: SMAW, GMAW, FCAW and GTAW along with oxy fuel cutting and plasma cutting. This class is a hands-on class and highly project oriented. **The student is required to participate in Project Based Learning.** The student will learn many welding related skills in the program including Safety, Welding math, Fabrication techniques, material handling, problem solving, team work, hand tools, and power tools. This course is competency based and self-paced.

BCTC MISSION Boone Career and Technical School enriches lives by providing occupational education, training, and cultural opportunities for lifelong learning and professional success in local, regional, and global communities.

COURSE GOALS AND OBJECTIVES This course will prepare motivated students to immediately enter the workforce in the welding industry, along with articulation of credit to approved post-secondary institutions. This course includes core welding techniques taught during the first semester. Then advances to more opportunities to perfect welding skills which includes the promotion of projects such as trailers, mining equipment and community projects.

During this course, students will have the opportunity to obtain 2 industry certifications. Students will work toward 9 state welding certifications. The student is expected to act in a professional and ethical manner at all times.

The following are the areas covered during the Adult Welding Program; students will progress at their own pace by completing performance test in the skills needed to proceed, upon completion of said skills/ Process you will be eligible to participate in the practical welding exam to obtain the WV State welding certification.

BCTC Welding

1. Welding safety and theory
2. Oxy-Acetylene/ Plasma set-up and cutting
3. Fabrication/Project based learning
4. SMAW (Shielded Metal Arc Welding)
5. FCAW (Flux Core Arc Welding)
6. GMAW (Gas Metal Arc Welding)
7. GTAW (Gas Tungsten Arc Welding)
8. Fork Truck training and OSHA approved certification

**ATTENDANCE
POLICY AND
GRADE
REDUCTION**

Boone Career and Technical Center Places a high priority on attendance because the attendance pattern established by the student in school often sets an attendance pattern for employment. To benefit from the primary purpose of the school experience, it is essential that each student maintain regular and punctual attendance. Class attendance is necessary for learning and academic achievement as well as for developing the habits of **punctuality, dependability, and self-discipline demanded by business and industry.** Regular attendance in the Career Center’s labs is essential to allow students to fully participate in class instruction, discussion and skill development. Absences beyond eight days per semester are considered excessive. Both excused and unexcused absences are charged in the student total.

Absences beyond eight (8) per semester are considered excessive. At eight (8) absences, excused or unexcused, the student will be called into a conference with the school counselor or principal. Each additional absence will require a conference with the school counselor or principal. The student will have an opportunity to make up the work, with credit, according to the Boone County Schools and WV Department of Education Policies.

Grading is based on testing and the evaluations of welds/cuts according to the NCCER and AWS SENSE curriculum.

**DRUG TESTING
POLICY**

Boone Career and Technical Center has developed a drug testing program similar to those found in the welding industry. Each student will be subject to a drug test upon entering the welding program at Boone Career and Technical Center. Each month random drug test will be administered and approximately 10% of the students will be tested each month.

CALL-IN POLICY

Students will be required to notify the instructor in advance if they are planning to miss a day of class. If a student does not know in advance that they will be absent they will be required to call in using one of the following methods; call-in (304)369-4585, or message the instructor, or email.

**STUDENT
ASSESSMENT**

Assessment for this course will be performance tests; both destructive and non-destructive tests will be administered.

Students will be required to complete 3 passing practice specimens in each position before advancing to the state certification test.

**CERTIFICATE /
COURSE
REQUIREMENTS**

Attendance and Class Participation
Involvement/ participation in project based learning
Progression through the required skills/ welding process
Following Shop Safety and Housekeeping Duties
Following all policies and procedures

CERTIFICATIONS

- 9- WV State Welding Certifications
- OSHA 10 Hour
- Fork Lift Operator

**COURSE
CALENDAR
(Timeline for
skills check offs)
Students who
attend regularly
and possess
determination
should be on
track with this
skills check off
timeline.
If a student
should fall
behind they will
be afforded the
opportunity to
work at their
own pace, as
mastery of each
skill/ process is
required to
move on.**

BCTC Welding
1st Semester

Orientation- Policies and procedures
Basic and Welding Safety
Oxy Fuel and Plasma Cutting
SMAW – Equipment and Setup
SMAW E7018 Beads
SMAW E7018 Padding Plate
E7018 1F,2F,3F,4F Welds
SMAW E7018 2G,3G,4G Welds with Backing
SMAW E7018 WV State Certification Test w/Backing
Re-test/Re teach- destructive and non-destructive testing
Materials Handling/ Forklift
Fabrication/Project based learning
SMAW E6010 Padding Plate
SMAW E6010 1F,2F,3F,4F Welds
SMAW E6010 and E7018 2G,3G,4G Welds Open Root
SMAW E6010 and E7018 WV State Certification Test Open Root
Re-test/Re teach- destructive and non-destructive testing

2nd Semester

Fabrication/Project based learning
GMAW- Equipment and Setup
GMAW 1F,2F,3F,4F Welds
GMAW 2G,3G,4G, Welds
GMAW WV State Certification Test
Re-test/Re teach- destructive and non-destructive testing
FCAW padding plate
FCAW 1F,2F,3F,4F
FCAW 2G,3G,4G
FCAW WV State Certification Test
Re-test/Re teach- destructive and non-destructive testing
OSHA 10
GTAW Equipment and setup
GTAW beads w/ and w/o filler
GTAW padding plate
GTAW 1F,2F,3F
GTAW 1G,2G,3G
GTAW State Certification Test
Re-test/Re teach- destructive and non-destructive testing

**INSTRUCTOR
INFORMATION**

Mr. Geer is instructing in his 7th year. He has worked in the welding and fabricating industry; in mining, oil field and shop fabrication settings. During this time, Mr. Geer has acquired vast knowledge and expertise in this area. Mr. Geer is WV certified welder in SMAW (plate/pipe) GMAW (plate/pipe), FCAW (plate/pipe), and GTAW (plate/pipe). Mr. Geer holds 2 associate degrees in IT and Networking and is currently working toward a BA at Marshall

Welcome to the field of Welding and Fabrication. In this program you will be introduced to many of the welding and fabricating techniques being used in the industry today. This is a hands-on program where most of the instruction is based around projects and practicing different welding techniques in the welding booth and in real world situations.

You will also be exposed to certifications that will allow you to go immediately into the workforce with acquired credentials. The welding and fabrication fields have many yearly openings in this and the surrounding areas, as well as openings nationwide; giving accredited students career options across the nation. Welding and fabricating can be a very lucrative and rewarding career for the dedicated student. I look forward to teaching you the skills needed to obtain a career in the welding and fabricating field.

*Sincerely,
Brandon Geer
Adult Welding Instructor*

**RESOURCES
AND READINGS**

- NCCER Core Curriculum
- NCCER Welding Level 1
- NCCER Welding Level 2
- AWS Welding Journals

The instructor reserves the right to make adjustment to this syllabus as needed.

Title IX ADA 504 Notice

Boone Career & Technical Center (BCTC) does not discriminate on the basis of race, color, religion, national origin, gender, sexual orientation, disability, age, or marital status in any of its policies, procedures or practices as required by Title IX, Section 504, and ADA regulations. For inquiries concerning Title IX, please contact the BCS Safe Schools Director Anthony Tagliente at 304-369-8276 or ataglient@k12.wv.us. For inquiries concerning 504/ADA, please contact the Director of Exceptional Children Mary Knapp, at 304-369-8245 or mknapp@k12.wv.us. Inquiries may also be submitted in writing to the following Director's at Boone County Schools 69 Avenue B Madison, WV 25130.

Syllabus Signature Sheet

NOTE TO STUDENTS:

I am excited about getting to know you. We have a lot to cover, but I know with perseverance and dedication, you will do well. I am available in my office from 2:00 PM- 3:00 PM Monday through Friday, if you need extra help or have any questions. ***You can also reach me at (304) 369-4585, or brandon.geer@k12.wv.us***

Please read, sign, and return this sheet to verify that you have read/ reviewed the Adult Welding Course Syllabus and agree to adhere to the policies of this class, school, county and State. Thank you!

****SIGN AND RETURN THIS SHEET****

I read, understand, and agree to the objectives, Project Based Learning, grading procedures, classroom policies, rules, drug testing policy, Background check Attendance/Call in Policy, of the BCTC Adult Welding Program

Student's name: _____ (Please print)

Student's signature: _____ Date: _____