ADULT EDUCATION PROGRAM PLAN

KCCC Adult Education
Welding Certification

Knox County Career Center
Adult Education
Coordinator: Charlie Culbertson
740.393.2933, ext. 1105
cculbertson@knoxcc.org

308 Martinsburg Road
Mount Vernon, OH 43050
School Phone: 740.393.2933
School Fax: 740.397.1659
Web Site: www.knoxtechnicalcenter.com
School Office Hours: Mon-Thurs 7:30am – 7:00pm
Fri 7:30am – 4:00pm

I. GENERAL INFORMATION

A. Mission Statement: The mission of the Knox County Career Center Adult Education is to provide cutting-edge programs that prepare adults with career and lifelong learning skills.

B. Adult Education Director:
Jane Marlow
740.393.2933, ext. 1106
jmarlow@knoxcc.org

Instructors:
Brandon Broseus
740.393.2933
bbroseus1@knoxcc.org

Jephthah Goodwin
jgoodwin@knoxcc.org

Craig Reynolds
creynolds@knoxcc.org

C. Disability Accommodations. Any learner needing special accommodation on the basis of any disability must advise the instructor at the beginning of class. All necessary accommodations will be made upon presentation of relevant certification, presented in a timely manner. Learners are also responsible for making contact with the Program Coordinator prior to the start of class. For detailed KCCC Bylaws & Policies pertaining to Reasonable Accommodation, see Section 2260.01-Section 504 – ADA Prohibition Against Discrimination Based on Disability located on the website at www.knoxcc.org.

D. Equal Opportunity. It is the policy of the Knox County Career Center School District that employment, educational programs, and activities are provided without regard to race, color, national origin, sex or disability. Any learner with a disability should contact the program coordinator. The Board designates the Director as the Title VI, Title IX and Section 504 Coordinator.

E. Title IV Eligibility. This program has been approved for Title IV funding. Adult learners requesting information about financial assistance should contact Financial Aid Coordinator Sheryl Mickley.

II. RATIONALE FOR PROGRAM

- The State of Ohio is the third largest state for manufacturing jobs. One in five jobs in Ohio Region 6 lies within the manufacturing industry. (Thrive, North Central Ohio Economic Development Region 6; www.thrive-oh.org)
- According to the Bureau of Labor Statistics Job Outlook for Welding, Soldering, and Brazing, Welders will become more efficient as a result of the expanded use of the improvements in technologies such as automation.
- Although numerous employers are willing to hire inexperienced entry-level workers and train them on the job, many prefer to hire workers who have been through training or credentialing programs. Because understanding the welding process and inspecting welds is important for both welders and welding machine operators, companies hiring machine operators prefer workers with a background in welding. (Bureau of Labor Statistics, 12/2015 http://www.bls.gov/ooh/production/welders-cutters-solderers-and-brazers.htm#tab-4)
- According to the Bureau of Labor Statistics Job Outlooks for **Welders**, "Overall job prospects will vary with the worker's skill level. Job prospects should be good for welders trained in the latest technologies. Welding schools report that graduates have little difficulty finding work, and many employers report difficulty finding properly skilled welders. However, welders who do not have up-to-date training may face strong competition for jobs." (Bureau of Labor Statistics, 12/2015; http://www.bls.gov/ooh/production/welders-cutters-solderers-and-brazers.htm#tab-6)
- Employment of welders, cutters, solderers, and brazers is projected to grow 6 percent from 2012 to 2022, slower than the average for all occupations. Employment growth reflects the need for welders in manufacturing because of the importance and versatility of welding as a manufacturing process. The basic skills of welding are similar across industries, so welders can easily shift from one industry to another, depending on where they are needed most. For example, welders laid off in the automotive manufacturing industry may be able to find work in the oil and gas industry. (Bureau of Labor Statistics, 12/2015; http://www.bls.gov/ooh/production/welders-cutters-solderers-and-brazers.htm#tab-6)
- Knox County Career Center has a history of excellent attendance for previously offered Welding adult education classes. Overwhelming input from past students indicated the need for more in-depth training.
- According to the National Association of Manufacturers, "US manufacturers report that current workers do not have the knowledge and skills—particularly in the areas of science, technology, engineering and math—necessary for today's high tech manufacturing jobs."
- The nation's aging infrastructure will require the expertise of welders, cutters, solderers, and brazers to help rebuild bridges, highways, and buildings. The construction of new power generation facilities and, specifically, pipelines transporting natural gas and oil will also result in new jobs. (Bureau of Labor Statistics, 12/2015; http://www.bls.gov/ooh/production/welders-cutters-solderers-and-brazers.htm#tab-6)

III. PROGRAM DESCRIPTION

The Welding Certification program will prepare learners for careers requiring welding certification. The 685-hour program is a performance based program with no prerequisite courses or certifications required. Learners will work with steel, stainless steel, cast iron, bronze, nickel, and other metals and alloys as they consult blueprints to plan, layout, cut, shape, weld, and finish various projects, including preparing estimates. Learners will become

familiar and practice with professional tools and equipment, as well as principles and techniques they will use on the job.

The curriculum includes instruction in shop math, layout procedures, cutting tools, and process planning; SMAW, GMAW, and GTAW welding processes; oxyacetylene cutting, plasma arc cutting, electrode identification, and metal characteristics.

The program concludes with the opportunity for learners to earn American Welding Society D.1.1 structural steel certification.

IV. PROGRAM GOALS

- Provide sound fundamental skills required to pass American Welding Society (AWS) structural certification test.
- Provide entry level knowledge and skills sets and advance to AWS certification.
- Provide employment opportunities in a variety of manufacturing fields
- Stay current with changing technologies by utilizing Advisory Committee from local industry
- Offer quality career oriented instruction utilizing modern teaching techniques and applications.
- Provide the necessary skills to acquire employment or advance career opportunities in the manufacturing environment.
- Provide a bridge for career pathways.
- Institute green technology into program.
- Explore technology of the future.

V. PROGRAM OUTCOMES

After the completion of the Welding Certification Program**,** a learner will be able to:

- Demonstrate good team and interpersonal skills.
- Demonstrate process planning, set-up, and safe operation of various welding machines.
- Demonstrate the soft skills necessary to support the proper welding operations.
- Obtain and maintain employment as a certified structural welder.
- Demonstrate basic knowledge of computer applications in the manufacturing environment
- Utilize acquired knowledge and skill to obtain American Welding Society (AWS) D1.1 certification.
- Apply acquired knowledge and skill to advance to a higher level of education such as an Associate Degree with an articulated institution.

VI. CREDENTIALS

- American Welding Society (AWS) Structural D1.1 certification

VII. TARGET POPULATION

- Any person 18 years of age and older
- Any person interested in a welding career and/or career enhancement within a manufacturing/welding career

VIII. PROGRAM MODEL

- 685 hours of instruction – Mondays through Thursdays, 5:00pm – 9:30pm
- 275 classroom hours, 410 hands-on lab for practical experience

IX. ASSESSMENT STRATEGIES

A. Preassessment Skills Review
- TABE

B. Throughout Program
- WorkKeys
- Individual module testing

C. Graduation
- American Welding Society (AWS) Structural D1.1 certification

X. EVALUATION PLAN TO DETERMINE PROGRAM EFFECTIVENESS

- Employment rate of graduates into manufacturing jobs within six months of graduation
- Learner evaluation of instructors halfway through program and at end of program
- Learner evaluation of course halfway through program and at end of program
- Meetings with Advisory Committee at least twice a year
- Meetings with Faculty on a quarterly basis

XI. TRAINING PATHWAYS

- Before: A career pathway system is a series of connected educational and training programs and support services that prepare and enable individuals, often while they are working, to secure a job and advance over time to successively higher levels of education and employment in a specific industry/field. Pathway goals are to increase access, awareness, affordability, resources, and alignment for high school students, adult learners, and the current workforce (Thrive, 2009). The Certified Welding Program is an entry-level program designed for personnel with little to novice experience in Welding Technology and lead straight to more advanced programs offered by higher institutions of learning.
- After: Articulation agreements with higher institutions such as Central Ohio Technical College (COTC) and North Central State College (NCSC) will be pursued.