

Manufacturing Skills Certification

David Miller, Project Director
Community Based Job Training Grant
(620) 792-9244 or 866-813-2460
millerd@bartonccc.edu

The Kansas Department of Labor has identified existing skilled labor shortages in several critical industries, one of which is advanced manufacturing. Shortage of a labor force in this area threatens the production of manufactured goods and services. Kansas will not achieve the desired level of competitiveness unless this labor market is strengthened. Leaders in the manufacturing industry have a strong interest in a standardized training program which results in certified individuals who meet their employment requirements.

This certification course consists of 120 hours of classroom instruction and successful completion will result in eight hours of college credit and a certificate of completion.

What are the opportunities available in the manufacturing industry?

Kansas is the home to many types of manufacturing industries. Some of the major industries include aircraft manufacturing and repair, agriculture equipment manufacturing, and more recently, wind turbine manufacturing.

What skills are required?

People entering the manufacturing industry must possess basic mathematical skills, be knowledgeable of industry standards, and possess the ability to read blueprints and/or mechanical drawings. They must know and practice good safety skills and have a basic knowledge of OSHA standards.

What is the employment outlook?

Advanced manufacturing in Kansas is a growth industry and comprises 17% of jobs in Kansas and 21% of the total state payroll. According to the Center for Economic Development and Research (CEDR), Wichita State University, manufacturing in Kansas is expected to increase from 2004 to 2014 by an estimated 12.3%, or a 16,500 position increase. Moreover, the total openings through 2014 are expected to surpass 49,500 positions due to employee turnover and retirement. The CEDR report emphasizes that one of the largest challenges facing the industry is, and will be, the supply of qualified workers within the manufacturing industry.



What can I earn in this field?

The average annual wage is \$47,600. This is 31% above the state average wage and 8% percent above the U.S. average wage. Potential earnings may vary depending on the size, type and location of the industry.

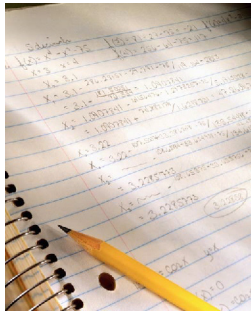
What makes this program unique?

This program is a "hands-on" approach to learning. Each student will have access to, and be able to practice with the same tools used on shop floors in the manufacturing industry. The instructor's come from the manufacturing industry and have many years of experience in manufacturing, industry safety, and tool management.



BARTON
COMMUNITY COLLEGE

Manufacturing Skills Certification Course of Study



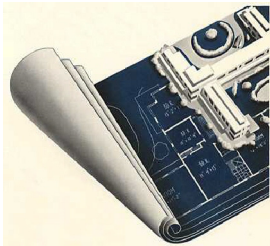
BASIC SHOP MATH

Nearly every shop activity requires basic math skills. Workers must know not only how to add, subtract, multiply and divide, but how to apply math to solve the everyday problems that arise in a shop setting. This program shows workers how to add, subtract, multiply and divide whole numbers, fractions, and decimals, as well as other basic activities, such as rounding numbers and calculating averages. The focus is on practical application – all examples and exercises are based on applications and measurements that shop workers typically encounter on the job.

BLUEPRINT READING

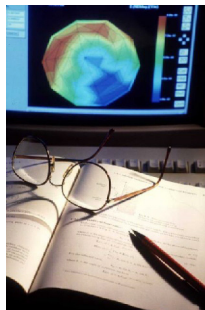
(Reading Engineering Drawings)

Blueprint reading develops workers' abilities to locate and interpret dimensions on engineering drawings – skills which are essential to the success of any quality improvement or scrap reduction efforts. It's a practical, application-based program that's based on current ANSI standards and includes input from a broad cross-section of industries.



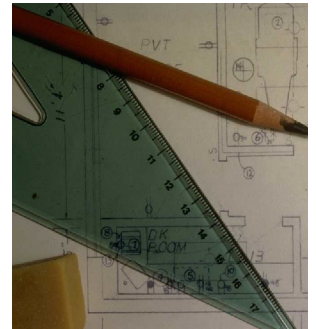
GEOMETRIC DIMENSIONS & TOLERANCES

This program provides learners with an overview of geometric dimensions and tolerances, which is rapidly becoming a common international engineering language. It is an effective way to build learners' abilities to read and interpret GD&T symbols, and to understand how part features are specified in terms of their function and relationship to other features.



PRECISION MEASUREMENT & QUALITY CONTROL

This program is a practical, efficient way to build needed skills in the use and reading of precision measurement devices, including mastery of the most common gauges and measurement tools used in modern production facilities. These skills will enable workers to contribute to quality improvement efforts for any manufacturing company.



OCCUPATIONAL SAFETY



This course is designed to provide the student with an understanding of current safety regulations, established safety practices, hazard recognition, and the impact of behavior and environment on injury. Upon completion of this course the student will have a basic understanding of the skills which are essential to work safely in an industrial environment. The course uses practical application based material that is based on OSHA and NIOSH standards to better understand how to recognize health and physical hazards to develop a safer working environment.

EMPLOYABILITY SKILLS

This course will prepare students for future employment by providing them with the information and skills to obtain a job and be successful on the job. Upon completion of the course, students will have the skills necessary to take full advantage of employment opportunities in terms of employment applications, application cover letters and resume writing. They will understand employer expectations, work ethics, communications skills, job search and job interview techniques.

