

# Manufacturing Tech

## THE PROGRAM

Manufacturing Tech professionals are the backbone of today's industry. Computer Numerical Control (CNC), precision welding, Computer Aided Mechanical Design (CAD-CAM), and 3D printing are a world away from the workbenches and traditional tools that are usually associated with manufacturing. The Manufacturing Tech program at Kish prepares students for contemporary manufacturing — planning, managing and processing materials. The program provides the hands-on training needed, utilizing the clean, computerized precision demanded by modern industry practices. Our classes give you the knowledge and our manufacturing lab and internship programs give you the experience to make you workplace ready.

The Manufacturing Tech Program is part of the Manufacturing Career Cluster: Programs that involve planning, managing and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance and manufacturing/process engineering. For more information, visit [www.careertech.org/career-clusters/](http://www.careertech.org/career-clusters/).

## CAREER OPPORTUNITIES

Manufacturing Tech professionals including toolmakers, designers, mechanical drafters, and production engineering aids who work together to keep production up and orders filled on time and play an integral role in economic growth and development.

## PRECISION MACHINING TECH

### Curriculum No. 233

An apprenticeship certificate program designed to provide courses in job-related theory for persons who are employed as apprentices. Substitutions for some courses may be made with the employers and college advisors approval. Approved by the U.S. Department of Labor. Requires 28 credit hours.

FIRST YEAR			
Fall Semester			
CAD 141	Technical Drafting CAD		(4)
MT 102	Metrology*		(2)
MT 104	Intro to Manufacturing & Safety*		(3)
MT 108	Introduction to Mfg Maintenance*		(2)
MT 153	Machine Shop Math		(4)
MT 215	Manufacturing Processes I*		(2)
Spring Semester			
MT 101	Print Reading for Industry		(2)
MT 205	Metallurgy		(3)
MT 216	Fabrication Practices		(2)
MT 264	Fixture Design		(4)

\* CPT Certificate Course

## CERTIFIED PRODUCTION TECH

### Curriculum No. 242

This certificate program provides students with an overview of the modern manufacturing environment. The program provides basic knowledge and skills in safety, quality and measurement, manufacturing processes, and manufacturing maintenance that allow students to qualify for entry-level employment within the manufacturing industry. Successful completion of courses leads to the Certified Production Technician (CPT) industry certification via the Manufacturing Skills Standards Certification (MSSC) program. Requires 16 credit hours.

FIRST YEAR			
Fall Semester or First 8 Weeks			
MT 102	Metrology		(2)
MT 104	Intro to Manufacturing & Safety		(3)
MT 153	Machine Shop Math		(4)
Spring Semester or Second 8 weeks			
MT 108	Introduction to Mfg Maintenance		(2)
MT 215	Manufacturing Processes I		(2)
MT 283	Automated Engineer Tech Intern		(3)

## AUTOMATED INDUSTRIAL TECH

### Curriculum No. 283

This certificate program is designed to provide courses in job-related theory for persons who are employed as maintenance apprentices. Graduates of this program are prepared to perform industrial maintenance activities in business and industry facilities. Substitutions for some courses may be made with the employers and college advisors approval. Approved by the U.S. Department of Labor. Requires 27 credit hours.

FIRST YEAR			
Fall Semester			
CAD 141	Technical Drafting CAD		(4)
ELE 104	DC Fundamentals Lecture		(2)
ELE 121	DC Fundamentals Lab		(1)
ELE 130	Introduction to PLC Systems		(3)
MT 101	Print Reading for Industry		(2)
MT 108	Introduction to Mfg Maintenance		(2)
MT 215	Manufacturing Processes I		(2)
Spring Semester			
CIS 123	Management Information Systems		(3)
ELE 103	AC Fundamentals Lecture		(2)
ELE 123	AC Fundamentals Lab		(1)
MT 104	Intro to Manufacturing & Safety		(3)
WT 116	Fundamental Welding Processes		(2)

## CNC PRODUCTION TECHNICIAN

### Curriculum No. 422 - pending approval

This certificate program is a combination of computer-aided drafting and computer numerical control. Students will use AutoCAD, a standard design and drafting package, to develop drawings. These drawings are then post-processed using industry standard CAM software, to generate CNC programs. Instruction will include machine tool processes and CNC machining. This program will prepare students for the new technological area called CAD/CAM. Requires 22 credit hours.

FIRST YEAR			
Fall Semester			
MT 104	Intro to Manufacturing & Safety		(3)
MT 153	Machine Shop Math		(4)
MT 215	Manufacturing Processes I		(2)
MT 290	Intro Computer Numerical Control		(4)
Spring Semester			
CAD 171	Fundamentals of CAD-SolidWorks		(3)
MT 101	Print Reading for Industry		(2)
MT 294	Advanced Computer Numerical Control		(4)

### Additional Sources of Information:

#### DEPARTMENT

Chase Budziak, Dean of Instruction  
 815-825-1708  
[cbudziak@kish.edu](mailto:cbudziak@kish.edu)

#### STUDENT SERVICES

Advising  
 815-825-9375