

CNC Fabrication Certificate

Certificate Number 90-442-3

Description:

This certificate is designed for learners who would like to develop basic knowledge in metal fabrication, welding and blueprint reading.

Requirements for Certificate Entry:

- Strong mechanical aptitude.
- Strong basic math background, with knowledge of trig (assistance for math and communication skills available in Academic Skills Lab).

Certificate Completers Will be Able to:

Perform basic metal fabrication, welding operations and read welding blueprints.

Machine Tool program graduates would find increased employment opportunities by completing this certificate.

Curriculum

CATALOG #	DESCRIPTION	CREDITS
31-442-331 <i>Offered in: Fall 2008 Spring 2009</i>	Blueprint Reading I ...orthographic projection, sketching, dimensioning, section and auxiliary views, structural shapes, welding symbols, weld joint nomenclature, welding joint geometry, metric conversion and interpretation of fabrications from prints.	3
31-442-332 <i>Offered in: Fall 2008 Spring 2009</i>	Metal Fabrication I ...safety and introduction to basic metal fabrication tools and equipment utilizing precision measuring tools, geometric nomenclature, basic layout and assembly skills along with polygon construction, and triangulation from scale drawings.	2
31-442-334 <i>Offered in: Fall 2008 Spring 2009</i>	Metal Fabrication II ...advanced metal fabrication tools developing assembly and sub-assemblies from working prints using various fabrication processes. Additionally, rigging and lifting, distortion control, and basic CNC programming will be incorporated. (Prerequisite: 31-442-332, Metal Fabrication 1)	2
31-442-317 <i>Offered in: Fall 2008 Spring 2009</i>	Welding-Gas Metal Arc ...welding safety, GMAW equipment/set up, joint details and distortion control, GMAW weld faults, welding metallurgy, and weld symbol interpretation. (Corequisite: 31-442-301, Welding-Cutting/Visual)	5
31-442-321 <i>Offered in: Fall 2008 Spring 2009</i>	Welding-Gas Tungsten Arc ...perform gas tungsten arc welding (GTAW) in all positions, on plain carbon steel, aluminum, and 3XX stainless steel. (Corequisite: 31-442-301, Welding-Cutting/Visual)	5
<i>Certificate Total</i>		17

For more information, please contact: The Trades and Technical Division, (920) 498-5457 or (800) 422-NWTC, extension 5457 or contact Donna Meves, Flexible Learning Manager, (920) 498-6872 or (920) 498-5431, donna.meves@nwtc.edu