

Manufacturing/Engineering Technology: Computer Numerical Control (CNC) Technician

Holland code family: Doers

Certificate of Completion

www.roguecc.edu/Counseling/HollandCodes/test

About the Program

This three-term certificate program integrates conventional manufacturing techniques with computer numerical control (CNC) manufacturing skills. Computer aided drafting (CAD) is used as a basic tool in the manufacturing engineering process. In addition to technical training, students receive a solid education in mathematics, along with human relations and computer skills courses. Graduates typically enter the workforce as computer numerical control (CNC) technicians or computer aided design drafters. With additional on-the-job experience, this training facilitates movement into fields such as quality control inspector and CNC programmer. This certificate completes the first-year requirements for RCC's Manufacturing and Engineering Technology AAS degree program.

Program Learning Outcomes

The curriculum in RCC courses is derived from a set of identified learning outcomes that are relevant to the discipline. Program learning outcomes for manufacturing programs are:

Operate, set up, and program manual and CNC mills and lathes to print specifications.

Interpret and create mechanical blueprints to industry standards.

Follow, develop, and troubleshoot manufacturing processes and procedures.

Demonstrate the ability to adhere to personal and industry safety standards to protect personnel and equipment.

Entry Requirements

Students are required to complete the Placement Process to determine skill level and readiness in math, reading, and writing. As part of their training program, students must begin with the courses within their skill level as determined through the Placement Process. In addition, students may also be required to enroll in classes that would increase their employability and success.

Advanced Standing

Coursework from accredited colleges and universities will be accepted in accordance with college policies and the Manufacturing and Engineering Technology Department chair's recommendation. In order to ensure that coursework is current, program courses over four years old must be reviewed and approved by the appropriate program coordinator before being accepted toward core requirements. Official transcripts must be filed with the Enrollment Services Office and the Manufacturing/Engineering Technology Department.

Credits earned in the successful completion of Career Pathways Certificates can be applied to other certificates and degrees in the Career Pathway. For more information, speak to a program advisor and review the roadmap at www.roguecc.edu/Programs/CareerPathways.

Graduation Requirements

Students must complete all courses in this program with a grade of "C" or better to receive their certificates. Certain required courses are graded on a pass/no pass basis only. A grade of "P" for these courses indicates a student earned the equivalent of a "C" or better grade.

Prerequisites

Course No.	Course Title	Credits
CS/CIS	Approved 3-4 credit Computer Science or Computer Information Science class, CS120/CIS120 or above, or documented computer proficiency within the past ten years. 1	0-4
MEC102	Basic Hand Tools or demonstrated proficiency	0-3
MTH20	Pre-algebra or designated placement test score	0-4
RD90/WR90	College Reading/Fundamentals of Composition or WR91 Fundamentals of Academic Literacy (WR91 substitutes for both RD90 and WR90) or designated placement test score	0-8
Total Prerequisite Credits		0-19



Required Courses

Course No.	Course Title	Credits
First Term		
MET101	Mechanical Drafting	3
MET105	Blueprint Reading - Mechanical	3
MFG101	Introduction to Manufacturing	3
MFG116	Metrology	2
MFG121	Manufacturing Processes I	4
MTH63	Applied Algebra I or MTH60 Fundamentals of Algebra I or higher level math	4
		19
Second Term		
MET104	Applied Shop Practices or MTH112 Elementary Functions	3-4
MET121	CAD I: Mechanical (SolidWorks)	3
MET160	Materials and Metallurgy or WLD225 Industrial Metallurgy	3
MFG122	Manufacturing Processes II	4
MFG140	CNC Controls	2
WR115	Introduction to Expository Writing or BT113 Business English I or higher level composition	3-4
		18-20
Third Term		
MET122	CAD II: Mechanical (SolidWorks)	3
MFG123	Manufacturing Processes III	4
MFG241	CNC Programming - Mill	4
PSY101	Psychology of Human Relations or BT101 Human Relations in Organizations	3
		14
TOTAL PROGRAM CREDITS		51-53

¹ Required for graduation.

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For more information contact the Manufacturing and Engineering Technology Department:

Grants Pass or Medford 541-245-7902
Toll free in Oregon 800-411-6508, Ext. 7902
email manufacturing@rogucecc.edu
Web address www.rogucecc.edu/manufacturing
TTY Oregon Telecom Relay Service, 711

This advising guide is for advising purposes only. Please see current college catalog for additional information on specific college policies and graduation requirements.

RCC is an open institution and does not discriminate. For RCC's non-discrimination policy and a full list of regulatory specific contact persons visit the following webpage: www.rogucecc.edu/nondiscrimination.

