



Machine Maintenance

Certificate of Completion (CC)

Planning Guide 2017-2018

EPC 607B

Program Information:

Length of Program: 16 Credits
Completion Award: Certificate of Completion
Enrollment: Every Quarter
Approximate Quarterly Costs: \$200
(in addition to tuition, books and parking)

Website: www.shoreline.edu/cncmachinist/

Program Advisor:

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Program Navigator:

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Program Description:

The certificate in Machine Maintenance is a sixteen-credit, three-quarter program intended to help meet the needs of the manufacturing industry for machine maintenance personnel by providing workers with the basic knowledge and skills necessary to successfully enter this field. By combining an understanding of fundamental principles with practical skills, the three core courses in this program show how to maintain, troubleshoot, and repair the major systems found in modern manufacturing machines. OSHA 10-Hour General Industry Safety is included as a required course in this program in recognition of the fact that machines are safest when they are operating as intended, but can become more hazardous when being maintained.

Machine Maintenance—What is it?

Modern manufacturing relies on complex machines whose maintenance requires an understanding of a broad range of topics that includes electricity, pumps, motors, computers, hydraulics, electronics, and power transmission to name just a few. This program provides a fundamental understanding of these topics, along with development of practical skills in troubleshooting and repair.

Program Outcomes:

Students who successfully complete this program **-by achieving a grade of 2.0 or better for each individual course in the program-**should be able to:

1. Apply all necessary safety measures in the performance of machine maintenance activities.
2. Use technical documents to find information necessary to perform machine maintenance.
3. Discuss the importance of regularly scheduled machine maintenance.
4. Demonstrate an understanding of basic mechanical principals, fluid power, motor theory, electrical fundamentals, and electronic controls as applied to manufacturing machines.
5. Demonstrate a thorough understanding of the major systems of manufacturing machines.
6. Level and align machines.
7. Perform proper lubrication and coolant maintenance.
8. Use basic electrical test equipment.
9. Use machine troubleshooting techniques.
10. Conduct and document maintenance activities, and demonstrate an understanding of the end conditions of a maintenance activity, including how to verify machine operability.
11. Attain the OSHA 10-Hour General Industry Safety Certification.
12. Be prepared to take examinations for applicable National Institute for Metalworking Skills (NIMS) Machine Building, Maintenance, Service and Repair Certifications.

Career Opportunities—What can I do with a Certificate in Machine Maintenance?

The Certificate in Machine Maintenance shows employers that you have developed an understanding of the fundamental principles underlying the operation of manufacturing machines, and the skills needed to perform basic repairs. Where employers endorse them, certifications can give special consideration to new applicants and to employees seeking promotions.

Potential employers include: Although this certificate program is primarily focused on the machining industry, the maintenance skills developed are applicable to a wide range of industries. Graduates may find employment anywhere industrial automation is used, including local manufacturing and material handling companies. Entry level salaries vary with each employer and individual skill level. For more, please visit career information and resources at <http://www.shoreline.edu/counseling-center/career-counseling.aspx>.

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Program Prerequisites: Satisfactory completion of MFGT 120 with a grade of 2.0 or better, or Instructor permission.

CERTIFICATE OF COMPLETION – 16 Credits

PROGRAM REQUIREMENTS

Course	QTR	GR	CR
MFGT 245 10-Hour OSHA			1
MFGT 246 Mechanical Maintenance			5
MFGT 247 Motive Maintenance			5
MFGT 248 Control Maintenance			5

Note: Every effort has been made to ensure the accuracy of the information in this publication. However, the information is subject to change without notice and final career decisions are the responsibility of the student.

RECOMMENDATIONS:

CERTIFICATE COMPLETION

Students should automatically receive their Certificate after successful completion of all required courses. If you have not received your Certificate, please contact the Workforce Education Programs in FOSS 5100 or call 206-546-5876.