

GENERAL INFORMATION

The Robotics Foundations Certificate is designed as a general introduction to the basics of robotic operation, basic programming, interfacing, and material handling in a complex mechatronics system. Students will gain conceptual, technical, and practical knowledge of robotic applications and how robotics is applied to industrial tasks using hands-on, interactive robotic devices. The Robotics Foundations Certificate is designed to prepare students for entry-level positions using robotics in a manufacturing facility and the aerospace industry.

The robotics certificate serves as an introduction to components in an industrial mechatronics system used for manufacturing and assembly. The certificate is recommended for anyone seeking to understand the basics of robotic operation, manual operation, end effector operation, interfacing, material handling, basic robotic programming, editing, positioning and homing in a mechatronic system. Students will perform hands-on exercises to promote learning and to build skills required by industry.

The certificate may be considered as a stand-alone credential for people seeking to enter the manufacturing field, or as the first level of a stackable set of certificates in the Advanced Manufacturing Technology ATA degree pathway.

PROGRAM CERTIFICATE OUTCOMES

- Describe what comprises basic robotics in a mechatronic system or module.
- Understand the role of automation and robotics in manufacturing and assembly operations.
- Demonstrate understanding of terms such as homing, looping, end effector operation, and I/O interfacing.
- Discuss and demonstrate manual operations and basic robotic commands.
- Identify and use basic robotic programming, editing, positioning and homing in a mechatronic system.
- Apply safety rules while working on the system.
- Transfer the knowledge learned from one robotic system to another robotic system.
- Be prepared for successful employment.

PROGRAM ADVISOR

For specific guidance about this certificate, contact:

- ♦ Robert White, 425-388-9457 rowhite@everettcc.edu

Certificate: Robotics Foundations Certificate 5 Credits

This checklist is targeted at students with an interest in an entry level manufacturing systems and/or the aerospace industry. Upon enrollment, this checklist should be submitted with a diploma application to the Enrollment Services Office.

Student: _____ Advisor Signature: _____ Date: _____

Course Number	Course Title	Credits	Quarter Planned	Quarter Done	Grade
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REQUIRED COURSES

MFG T 119	Introduction to Robotics	5	_____	_____	_____
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TOTAL: 5 credits Minimum 2.0 GPA

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