

Mechatronics Technology Curriculum

Contact Us:

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Program Overview

Combining electronic, mechanical, robotics and information system technologies, this program provides the graduate with the skill set needed for today's automated manufacturing facilities. These skills will align with current needs of manufacturers as well as align with one or more industrial standards/certifications. Instruction covers hydraulics and pneumatics, robotics and automated controls, programmable controllers, process control and mechanical applications. The student will receive practical hands-on experience and computer simulation on automated assembly line processes.

PROGRAM REQUIREMENTS

A.A.S., Major in Mechatronics Technology

GENERAL EDUCATION COURSES

COURSES	CREDIT HOURS
ENG 165 Professional Communications..... 3.0 or ENG 101 English Composition I	
MAT 170 Algebra, Geometry and Trigonometry I..... 3.0 or MAT 110 College Algebra	
MAT 171 Algebra, Geometry and Trigonometry II 3.0 or MAT 111 College Trigonometry	
Elective Humanities/Fine Arts 3.0	
Elective Social/Behavioral Sciences 3.0	

SUBTOTAL: 15.0

REQUIRED CORE SUBJECT AREAS

COURSES	CREDIT HOURS
AMT 105 Robotics and Automated Controls I..... 3.0	
EEM 117 AC/DC Circuits I..... 4.0	
EEM 251 Programmable Controllers 3.0	
IMT 131 Hydraulics and Pneumatics 4.0	
IMT 170 Statistical Process Control..... 3.0	

SUBTOTAL: 17.0

OTHER COURSES REQUIRED FOR GRADUATION

COURSES	CREDIT HOURS
AMT 205 Robotics and Automated Controls II 3.0	
EEM 118 AC/DC Circuits II 4.0	
EEM 140 National Electrical Code..... 3.0	
EEM 151 Motor Controls I 4.0	
EEM 162 Introduction to Process Control 3.0	
EEM 200 Semiconductor Devices 4.0	
EEM 231 Digital Circuits I 3.0	
EEM 241 Microprocessors I..... 3.0	
IMT 112 Hand Tool Operations 3.0	
IMT 161 Mechanical Power Applications 4.0	

SUBTOTAL: 34.0

TOTAL CREDIT HOURS: 66.0

Mechatronics Technology I Certificate

This certificate is designed to prepare students for system approach analysis and troubleshooting on advanced automated equipment and machinery, combining electronic, mechanical, robotics and information system technology found in today's automated manufacturing facilities.

REQUIRED COURSE INFORMATION

COURSES	CREDIT HOURS
EEM 117 AC/DC Circuits I..... 4.0	
EEM 118 AC/DC Circuits II 4.0	
EEM 151 Motor Controls I 4.0	
EEM 162 Introduction to Process Control 3.0	
EEM 200 Semiconductor Devices 4.0	
EEM 231 Digital Circuits I 3.0	
IMT 112 Hand Tool Operations 3.0	
IMT 131 Hydraulics and Pneumatics 4.0	

SUBTOTAL: 29.0

TOTAL CREDIT HOURS: 29.0

>>> Visit www.ptc.edu/mechatronics to learn more.