

CAREER STUDIES CERTIFICATE (221-706-90)

Advanced Technology in Mechatronics

Purpose: This curriculum is designed to challenge the student with hands-on instruction in mechanical, electrical and computer systems in preparation for the Siemens Mechatronics Systems Certification. A Siemens Certified Mechatronic Systems Associate will function as a highly skilled technician who can work with modules and components in complex mechatronic systems as well as be able to assess and analyze the system as a whole. A certified Associate can manage, investigate, repair and troubleshoot mechatronic systems, with the aim of operational and cost efficiency, and process control.

Program Objectives: Graduates who successfully complete the Siemens Mechatronics Systems Certification may obtain a job as a certified mechatronics technician; designing, installing and commissioning systems, including instrumentation, controls and automation.

Admission Requirements: Applicants must meet the requirements for admission to credit-level coursework established by the college.

Developmental Requirements: Students who do not demonstrate proficiency on the placement test in the following mathematical units will be required to complete developmental courses: MTE 1, 2 and 3.

It is strongly recommended that developmental education requirements be completed as soon as possible.

Program Notes: Graduates may continue their studies in the AAS Technical Studies - Mechatronics Technology specialization.

CURRICULUM AND OTHER REQUIREMENTS

ADVANCED TECHNOLOGY AND OTHER RELATED COURSES CREDITS

EGR 105	Intro to Problem Solving in Tech.....	1
EGR 123	Intro to Engineering Design	2
ETR 113*	DC and AC Circuits	4
ETR 286*	Prin. and Applications of Robotics	3
IND 108	Technical Computer Applications (or EGR 216)	3
IND 113	Materials and Processes of Manufacturing	3
IND 116	Applied Technology	3
IND 250	Intro to Basic Computer Integrated Manufacturing	3
IND 251	Automated Manufacturing Systems I	4
MEC 162	Applied Hydraulics & Pneumatics	3
Total Minimum Credits for Certificate		29

*This course has a requisite. Requisites for all courses are listed in the course description section at the back of the catalog.

SUGGESTED SCHEDULE

FIRST YEAR	SPRING
FALL	MEC 162
EGR 123	
ETR 113	
IND 108	
SECOND YEAR	SPRING
FALL	EGR 105
ETR 286	IND 113
IND 116	IND 251
IND 250	

Note: Dual-enrolled high school students must graduate from high school before officially declaring and/or graduating from this program.