

Engineering Technology w/Emphasis in

Mechatronics Certificate of Achievement

A major of 49	units is required for the certi	ficate.	or		
Required core	courses (34 units):		☐ CEL 128	Introduction to Renewable Energy	3
COURSE	TITLE	UNITS	or		
☐ CS 111	Fundamentals of Programming 1	4	☐ ET 128 ☐ EL 131	Intro to Renewable Energy Programmable Logic	3 3
☐ EL 118	Fundamentals of DC and AC Circuits Analysis	3		Controllers and Control Design	
☐ EL 119	Fundamentals of DC and AC Circuits Analysis Laboratory	2	or CEL 131	Programmable Logic	3
☐ EL 125	Digital Devices and Circuits	3		Controllers and Control	
☐ EL 126	Digital Devices and Circuits Lab	2	or	Design	
□ EL 104	Introduction to Robotics and Mechatronics	3	☐ ET 131	Programmable Logic Controllers and Control Design	3
☐ CEL 104	Introduction to Robotics and Mechatronics	3	☐ EL 133 or	Mechatronic Systems 1	3
or			☐ CEL 133	Mechatronic Systems 1	3
☐ ET 104	Introduction to Robotics and	3	or		
	Mechatronics		☐ ET 133	Mechatronic Systems 1	3
☐ EL 122	Electronic Devices and Circuits	3	☐ EL 135	Electronic Measurement and Instrumentation	3
☐ EL 123	Electronic Devices and Circuits Laboratory	2	☐ EL 136	Electronics Measurement and Instrumentation Laboratory	2
☐ ET 140	Engineering Drawing	3	☐ EL 139	Electrical Power, Motors, and	3
☐ EL 146	Electronic Product	2		Controls	
	Design, Fabrication and		or		
□ MT 400	Documentation	4	☐ CEL 139	Electrical Power, Motors, and Controls	3
☐ MT 109	Survey of Machining and Manufacturing	4	or		
☐ MT 117	Print Reading and Interpretation	3	☐ ET 139 —	Electrical Power, Motors, and Controls	3
or		_	☐ EL 162	Fluid Power And Control	2
☐ WLDT 306	Layout and Fabrication Interpretation	3	or □ CEL 162	Fluid Power and Control	2
			or	raid raid and actions.	_
	m of 15 units selected from	the	☐ ET 162	Fluid Power and Control	2
following:			☐ ET 100	Computer Aided Drafting and	3
COURSE	TITLE	UNITS		Design	
☐ EL 105	PC Preventive Maintenance and Upgrading	3	☐ PHYS 100 or	Concepts In Physics	3
or			☐ PHYS 100	Concepts In Physics	3
☐ EL 320	A+ Certification	2	or		
☐ EL 106	Networking Essentials 1	3	☐ PHSC 111	Matter, Energy and Molecules	4
☐ EL 107	Networking Essentials 2	3	☐ WLDT 106	Beginning Welding	3
☐ EL 135	Electronic Measurement and Instrumentation	3	☐ WLDT 107☐ WLDT 307	Advanced Welding G.M.A.W. Welding	3 3
☐ EL 136	Electronics Measurement and	2	or		
	Instrumentation Laboratory	_	☐ WLDT 308	T.I.G. Welding	3
☐ EL 128	Introduction to Renewable Energy	3	☐ WLDT 315	Metal Fabrication	4

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Suggested Course Sequence

The "Suggested Course Sequence" is an example of how to complete the requirements plus any additional general education that may be needed. If you would like to create a personalized Student Education Plan (SEP), schedule a meeting with a counselor.

SUMMER SEMI	SUMMER SEMESTER (YEAR 1)		
Course	Title	Units	
☐ ET 100	Computer Aided Drafting and Design	3	
Total Units		3	
Tasks			

FALL SEMEST	ER (YEAR 1)	
Course	Title	Units
☐ ET 104	Introduction to Robotics and Mechatronics	3
☐ EL 118	Fundamentals of DC and AC Circuits Analysis	3
☐ EL 119	Fundamentals of DC and AC Circuits Analysis Laboratory	2
☐ ET 140	Engineering Drawing	3
☐ elective	major elective group 1	3
Total Units		14

Tasks:

- · Complete Career Exploration
- · Meet with Counselor (SEP)
- · Visit library and tutoring
- · Review Financial Aid Requirements
- · Apply AHC Scholarship

SPRING SEMEST	EMESTER (YEAR 1)	
Course	Title	Units
☐ EL 122	Electronic Devices and Circuits	3
☐ EL 123	Electronic Devices and Circuits Laboratory	2
☐ MT 117	Print Reading and Interpretation	3
☐ elective	major elective group 2	3
Total Units		11

Tasks:

- · Set up Jobspeaker
- · Attend Career Exploration Day
- · FAFSA or Dream Act due March 2
- · Apply AHC Scholarship

SUMMER S	SEMESTER (YEAR 2)	
Course	Title	Units

☐ CS 102	Introduction to Computing with HTML	3
Total Units		3
Tasks		

FALL SEMEST	ER (YEAR 2)	
Course	Title	Units
☐ CS 111	Fundamentals of Programming 1	4
☐ EL 125	Digital Devices and Circuits	3
☐ EL 126	Digital Devices and Circuits Lab	2
□ elective	major elective group 3	3
Total Units		12
Tacks:		

- · Meet with a Counselor
- · Develop Resume at Career Center
- · Review Financial Aid Requirements
- · Apply for AHC Scholarship

	Title	Units
☐ EL 146	Electronic Product Design, Fabrication and Documentation	2
☐ MT 109	Survey of Machining and Manufacturing	4
☐ elective	major elective group 4	3
☐ elective	major elective group 5	3
Total Units		12
Tasks:		

- Apply for Certificate with Counseling
- Utilize Job Search Resources
- · Complete FAFSA or Dream Act by March 2
- Attend Job Fair/Career Exploration Day