

Computer Networking and Electronics

Technology: Mechatronics Certificate of Achievement

A total of 49 units is required for the certificate.					
Required core courses (34 units):			☐ CEL 128	Introduction to Renewable Energy	3
COURSE	TITLE	UNITS	or	Energy	
☐ CS 111	Fundamentals of Programming 1	4	☐ ET 128 ☐ EL 131	Intro to Renewable Energy Programmable Logic	3 3
☐ EL 104	Introduction to Robotics and Mechatronics	3	or	Controllers and Control Design	
or CEL 104	Introduction to Robotics and Mechatronics	3	GEL 131	Programmable Logic Controllers and Control Design	3
☐ ET 104	Introduction to Robotics and Mechatronics	3	or □ ET 131	Programmable Logic	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	☐ EL 133 or	Mechatronic Systems 1	3
☐ EL 122	Electronic Devices and Circuits	3	☐ CEL 133 or	Mechatronic Systems 1	3
☐ EL 123	Electronic Devices and Circuits Laboratory	2	☐ ET 133 ☐ EL 139	Mechatronic Systems 1 Electrical Power, Motors, and	3 3
☐ EL 125	Digital Devices and Circuits	3	_ == .00	Controls	
☐ EL 126	Digital Devices and Circuits Lab	2	or □ CEL 139	Floatrical Dawer Maters and	3
☐ MT 117	Print Reading and Interpretation	3	or	Electrical Power, Motors, and Controls	3
or	·		☐ ET 139	Electrical Power, Motors, and	3
☐ WLDT 306	Layout and Fabrication Interpretation	3	☐ EL 162	Controls Fluid Power And Control	2
☐ EL 146	Electronic Product	2	or	Tidid Fower And Control	۷
	Design, Fabrication and Documentation		CEL 162	Fluid Power and Control	2
☐ ET 140	Engineering Drawing	3	☐ ET 162	Fluid Power and Control	2
☐ MT 109	Survey of Machining and Manufacturing	4	☐ ET 100	Computer Aided Drafting and Design	3
	m of 15 units selected from	the	☐ PHYS 100 or	Concepts In Physics	3
following:			☐ PHYS 110	Introductory Physics	3
COURSE	TITLE	UNITS	or	, ,	
☐ EL 105	PC Preventive Maintenance	3	☐ PHSC 111	Matter, Energy and Molecules	4
	and Upgrading		☐ WLDT 106	Beginning Welding	3
or	A O attraction	0	☐ WLDT 107	Advanced Welding	3
☐ EL 320	A+ Certification	2	☐ WLDT 307	G.M.A.W. Welding	3
☐ EL 106	Networking Essentials 1	3	or		
☐ EL 107	Networking Essentials 2	3	☐ WLDT 308	T.I.G. Welding	3
☐ EL 135	Electronic Measurement and Instrumentation	3	☐ WLDT 315	Metal Fabrication	4
☐ EL 136	Electronics Measurement and Instrumentation Laboratory	2			
☐ EL 128	Introduction to Renewable Energy	3			

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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.

FALL SEMESTER (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	2-4	
Total Units		10-12	

Tasks:

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

SPRING SEMESTER (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	2-4	
Total Units		13-15	

Tasks:

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

SUMMER SEMESTER (YEAR 2)			
Course	Title	Units	
☐ CS 102	Introduction to Computing with HTML	3	
Total Units		3	
Tasks			

FALL SEME	STER (YEAR 2)	
Course	Title	Units

☐ EL 125	Digital Devices and Circuits	3
☐ EL 126	Digital Devices and Circuits Lab	2
☐ CS 111	Fundamentals of Programming 1	4
elective	major elective group 5	2-4
Total Units		11-13

Tasks:

- · Meet with a Counselor
- · Develop Resume at Career Center
- · Review Financial Aid Requirements
- Attend Job Fair/Career Exploration Day

SPRING SEMESTER (YEAR 2)			
Course	Title	Units	
☐ EL 146	Electronic Product Design, Fabrication and Documentation	2	
☐ MT 109	Survey of Machining and Manufacturing	4	
elective	major elective group 5	2-4	
☐ elective	major elective group 5 (if needed)	2-4	
Total Units		10-14	
Tasks:			

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