

# **Computer Networking and Electronics**

## Technology: Mechatronics Associate in Science

A major of 49 units is required for the degree.			☐ ET 128	Intro to Renewable Energy	3
Required core	courses (34 units):		☐ EL 131	Programmable Logic Controllers and Control	3
COURSE	TITLE	UNITS	0.5	Design	
☐ CS 111	Fundamentals of Programming 1 Introduction to Robotics and	4 3	or CEL 131	Programmable Logic Controllers and Control	3
or	Mechatronics	3	or	Design	
☐ CEL 104	Introduction to Robotics and Mechatronics	3	☐ ET 131	Programmable Logic Controllers and Control Design	3
or ET 104	Introduction to Robotics and Mechatronics	3	□ EL 133 □ or □	Mechatronic Systems 1	3
☐ EL 118	Fundamentals of DC and AC Circuits Analysis	3	CEL 133	Mechatronic Systems 1	3
☐ EL 119	Fundamentals of DC and AC	2	☐ ET 133	Mechatronic Systems 1	3
□ El 100	Circuits Analysis Laboratory	0	☐ EL 135	Electronic Measurement and Instrumentation	3
☐ EL 122	Electronic Devices and Circuits	3	☐ EL 136	Electronics Measurement and	2
☐ EL 123	Electronic Devices and	2	□ = 100	Instrumentation Laboratory	
□ = 1.05	Circuits Laboratory		☐ EL 139	Electrical Power, Motors, and Controls	3
☐ EL 125	Digital Devices and Circuits	3	or	Controls	
☐ EL 126	Digital Devices and Circuits Lab	2	☐ CEL 139	Electrical Power, Motors, and	3
☐ MT 117	Print Reading and Interpretation	3	or	Controls	
_ 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		
_	Design, Fabrication and Documentation		CEL 162 or	Fluid Power and Control	2
☐ MT 109	Survey of Machining and Manufacturing	4	☐ ET 162	Fluid Power and Control	2
☐ ET 140	Engineering Drawing	3	☐ ET 100	Computer Aided Drafting and Design	3
Plus a minimu	ım of 15 units selected from	the	☐ PHYS 100	Concepts In Physics	3
following:			or □ PHYS 110	Introductory Physics	3
COURSE	TITLE	UNITS	or	introductory i mysics	3
☐ EL 105	PC Preventive Maintenance	3	☐ PHSC 111	Matter, Energy and Molecules	4
	and Upgrading		☐ WLDT 106	Beginning Welding	3
or			☐ 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 128	Introduction to Renewable Energy	3	☐ WLDT 315	Metal Fabrication	4
or	Internal continue to Division (II)				
☐ CEL 128	Introduction to Renewable Energy	3			
or					

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

•	FAFSA of Dream Act due March 2	-
•	Apply AHC Scholarship	

FALL SEMESTER (YEAR 1)			
Course	Title	Units	
☐ 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	
☐ ET 104	Introduction to Robotics and Mechatronics	3	
☐ AHC GE Req	Area 2: Mathematical Concepts and Quantitative Reasoning	3-5	
☐ AHC Grad Req	Dance or Physical Activity	.5-3	
Total Units		13.5-19	

## 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	
☐ ENGL 101	Freshman Composition: Exposition	4	
☐ MT 117	Print Reading and Interpretation	3	
☐ Elective	Major elective group 1	2-4	
Total Units		17-19	
Tasks:			

- · Set up Jobspeaker
- · Attend Career Exploration Day



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FALL SEMESTER (YEAR 2)			
Course	Title	Units	
☐ EL 125	Digital Devices and Circuits	3	
☐ EL 126	Digital Devices and Circuits Lab	2	
☐ PHSC 111	Matter, Energy and Molecules	4	
☐ AHC GE Req	Area 6: Ethnic Studies	3	
☐ AHC GE REQ	Area 3: Arts and Humanities	3	
☐ AHC GE REQ	Area 7: Living Skills	3	
☐ AHC GE REQ	Area 4A: Social and Behavioral Sciences	3	
Total Units		18	
Tasks:			

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

SPRING SEMESTER (YEAR 2)			
Course	Title	Units	
☐ CS 111	Fundamentals of Programming 1	4	
☐ MT 109	Survey of Machining and Manufacturing	4	
□ EL 146	Electronic Product Design, Fabrication and Documentation	2	
☐ elective	major elective group 2	2-4	
☐ elective	major elective group 3	2-4	
☐ AHC GE REQ	Area 4B:United States History and Government	3	
Total Units		17-21	
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- · Apply for Degree with Counseling
- · Utilize Job Search Resources
- · Complete FAFSA or Dream Act by March 2
- · Attend Job Fair/Career Exploration Day