Computer Networking and Electronics Technology: Mechatronics Associate in Science

ALLAN HANCOCK COLLEGE

A major of 49 units is required for the degree.

Required core courses (34 units):

COURSE	TITLE	UNITS
☐ CS 111	Fundamentals of Programming 1	4
☐ EL 104	Introduction to Robotics and Mechatronics	3
or		
☐ CEL 104	Introduction to Robotics and Mechatronics	3
or		
☐ 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
☐ EL 122	Electronic Devices and Circuits	3
☐ EL 123	Electronic Devices and Circuits Laboratory	2
☐ EL 125	Digital Devices and Circuits	3
☐ EL 126	Digital Devices and Circuits Lab	2
☐ MT 117	Print Reading and Interpretation	3
or		
☐ WLDT 306	Layout and Fabrication Interpretation	3
☐ EL 146	Electronic Product Design, Fabrication and Documentation	2
☐ MT 109	Survey of Machining and Manufacturing	4
☐ ET 140	Engineering Drawing	3

Plus a minimum of 15 units selected from the following:

COURSE	TITLE	UNITS
☐ EL 105	PC Preventive Maintenance and Upgrading	3
or		
☐ EL 320	A+ Certification	2
☐ EL 106	Networking Essentials 1	3
☐ EL 107	Networking Essentials 2	3
☐ EL 128	Introduction to Renewable Energy	3
or		
☐ CEL 128	Introduction to Renewable Energy	3
or		
☐ ET 128	Intro to Renewable Energy	3
☐ EL 131	Programmable Logic Controllers and Control Design	3
or		
☐ CEL 131	Programmable Logic Controllers and Control Design	3
or		
☐ ET 131	Programmable Logic Controllers and Control Design	3
☐ EL 133	Mechatronic Systems 1	3
or		
☐ CEL 133	Mechatronic Systems 1	3
or		
☐ ET 133	Mechatronic Systems 1	3
☐ EL 135	Electronic Measurement and Instrumentation	3
☐ EL 136	Electronics Measurement and Instrumentation Laboratory	2
☐ EL 139	Electrical Power, Motors, and Controls	3
or		
☐ CEL 139	Electrical Power, Motors, and Controls	3
or		
☐ ET 139	Electrical Power, Motors, and Controls	3
☐ EL 162	Fluid Power And Control	2
or		
☐ CEL 162	Fluid Power and Control	2
or		
☐ ET 162	Fluid Power and Control	2
☐ ET 100	Computer Aided Drafting and Design	3
☐ PHYS 100	Concepts In Physics	3
or		
☐ PHYS 110	Introductory Physics	3
or		
☐ PHSC 111	Matter, Energy and Molecules	4
☐ WLDT 106	Beginning Welding	3
☐ WLDT 107	Advanced Welding	3
☐ WLDT 307	G.M.A.W. Welding	3
or		
☐ WLDT 308	T.I.G. Welding	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 SEMESTER (YEAR 1)

Course	Title	Units
☐ ET 100	Computer Aided Drafting and Design	3
Total Units		3

Tasks

- Attend Career Exploration Day
- FAFSA or 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 Grad Req	Math Competency	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
☐ AHC Grad Req	Health Education or First Aid	3
Total Units		17-19

Tasks:

- Set up Jobspeaker

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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 Grad Req	Multicultural and Gender Studies	3
☐ AHC GE REQ	Area 3: Arts and Humanities	3
☐ AHC GE REQ	Category 5: Living Skills	3
☐ AHC GE REQ	Category 2A: Social 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	Category 2B: American History or Government	3
Total Units		17-21

Tasks:

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