ALLAN HANCOCK COLLEGE

Engineering Technology w/Emphasis in

Mechatronics Associate in Science

Program Requirements:

"Program Requirements" specify the courses required for this program. See suggested course sequence for additional information.

A major of 49 units is required for the associate in science degree and certificate.			☐ EL 107 ☐ EL 135	Networking Essentials 2 Electronic Measurement and	3
Required core courses (34 units):		☐ EL 136	Instrumentation Electronics Measurement and	2	
COURSE	TITLE	UNITS	_	Instrumentation Laboratory	
☐ CS 111	Fundamentals of Programming 1	4	☐ EL 128	Introduction to Renewable Energy	3
☐ EL 104	Introduction to Robotics and Mechatronics	3	or □ CEL 128	Introduction to Renewable Energy	3
☐ CEL 104	Introduction to Robotics and Mechatronics	3	or □ ET 128 □ EL 131	Intro to Renewable Energy Programmable Logic	3
or ET 104	Introduction to Robotics and Mechatronics	3		Controllers and Control Design	3
☐ EL 118	Fundamentals of DC and AC Circuits Analysis Fundamentals of DC and AC	3	or CEL 131	Programmable Logic Controllers and Control	3
☐ EL 125	Circuits Analysis Laboratory Digital Devices and Circuits	3	or	Design	
☐ EL 122	Electronic Devices and Circuits	3	☐ ET 131	Programmable Logic Controllers and Control Design	3
☐ EL 126	Digital Devices and Circuits Lab	2	☐ EL 133	Mechatronic Systems 1	3
☐ EL 123	Electronic Devices and Circuits Laboratory	2	or CEL 133	Mechatronic Systems 1	3
□ EL 146	Electronic Product Design, Fabrication and Documentation	2	or □ ET 133 □ EL 139	Mechatronic Systems 1 Electrical Power, Motors, and	3
☐ ET 140	Engineering Drawing	3		Controls	
☐ MT 109	Survey of Machining and Manufacturing Print Reading and	4 3	or CEL 139	Electrical Power, Motors, and Controls	3
or	Interpretation	-	or □ ET 139	Electrical Power, Motors, and	3
☐ WLDT 306	Layout and Fabrication Interpretation	3	☐ EL 162	Controls Fluid Power And Control	2
Plus a minimul following:	m of 15 units selected from	the	or □ CEL 162 or	Fluid Power and Control	2
COURSE	TITLE	UNITS	☐ ET 162	Fluid Power and Control	2
☐ EL 105	PC Preventive Maintenance and Upgrading	3	☐ ET 100	Computer Aided Drafting and Design	3
or			☐ PHYS 100	Concepts In Physics	3
☐ EL 320 ☐ EL 106	A+ Certification Networking Essentials 1	2 3	or □ PHYS 110 or	Introductory Physics	3



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☐ 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			
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	
☐ AHC GE Req	Area 2: Mathematical Concepts and Quantitative Reasoning	3-5	
☐ AHC Grad Req	Dance or Physical Activity	.5-3	
☐ AHC GE REQ	Area 4B:United States History and Government	3	
Total Units		11.5-16	

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- Complete Career Exploration
- Meet with Counselor (SEP)
- · Visit library and tutoring
- · Review Financial Aid Req.
- · 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	
elective	major elective group 1	3	
☐ HED 100	Social and Personal Health and Wellness	3	
☐ MT 117	Print Reading and Interpretation	3	
Total Units		18	
Tasks:			

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



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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 4A: Social and Behavioral Sciences	3	
☐ AHC GE REQ	Area 1B: Oral Comm. and Critical Thinking	3	
☐ AHC GE Req	Area 6: Ethnic Studies	3	
Total Units		18	

Tasks:

- · Meet with a Transfer 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	
□ EL 146	Electronic Product Design, Fabrication and Documentation	2	
☐ MT 109	Survey of Machining and Manufacturing	4	
☐ elective	major elective group 2	3	
☐ elective	major elective group 3	3	
☐ AHC GE REQ	Area 4B:United States History and Government	3	
Total Units		19	

Tasks:

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