ALLAN HANCOCK COLLEGE

Engineering
Associate in Arts

Program Requirements:

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

A major of 32 units is required for the degree. Required core courses (17 units):

COURSE	TITLE	UNITS
☐ CHEM 150	General Chemistry 1	5
☐ MATH 182	Calculus 2	4
☐ PHYS 161	Engineering Physics 1	4
☐ PHYS 162	Engineering Physics 2	4
or		
☐ PHYS 163	Engineering Physics 3	4

Category A - Engineering: Select a minimum of 6 units from Category A and 9 units from selected from Category A and/or Category B.

COURSE	TITLE	UNITS
☐ ENGR 152	Statics	3
☐ ENGR 154	Dynamics	3
☐ ENGR 156	Strength of Materials	4
☐ ENGR 161	Materials Science	3
and		
☐ ENGR 162	Materials Science Lab	1
☐ ENGR 170	Electric Circuit Analysis	3
and		
☐ ENGR 171	Electric Circuit Lab	1

Category B - Engineering Support

COURSE	TITLE	UNITS
☐ CHEM 151	General Chemistry 2	5
☐ CS 111	Fundamentals of Programming 1	4
☐ ET 140	Engineering Drawing	3
☐ ET 145	Advanced Engineering Drawing	3
☐ MATH 183	Multivariable Calculus	4
☐ MATH 184	Linear Algebra/Differential Equations	5
☐ PHYS 162	Engineering Physics 2	4
or		
☐ PHYS 163	Engineering Physics 3	4

Recommended electives:

COURSE	TITLE	UNITS
☐ ENGR 100	Introduction to Engineering	1
☐ ENGR 124	Excel for Science and Engineering	1
☐ ENGR 126	MATLAB for Science and Engineering	1

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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.

This suggested plan assumes a student is eligible for MATH 181, CHEM 150 and PHYS 161.

FALL SEMESTER (YEAR 1)

Course	Title	Units
☐ ENGL 101	Freshman Composition: Exposition	4
☐ ENGR 100	Introduction to Engineering	1
☐ CHEM 150	General Chemistry 1	5
☐ MATH 181	Calculus 1	4
Total Units		14

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
☐ MATH 182	Calculus 2	4
☐ PHYS 161	Engineering Physics 1	4
☐ CS 111	Fundamentals of Programming 1	4
	OR	
☐ CHEM 151	General Chemistry 2	5
Total Units		15-16

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
☐ AHC GE REQ	Area 4B:United States History and Government	3
☐ AHC Grad Req	Dance or Physical Activity	.5-3
☐ AHC GE REQ	Area 3: Arts and Humanities	3
Total Units		7

FALL SEMESTER (YEAR 2)

Course	Title	Units
☐ PHYS 163	Engineering Physics 3	4
	OR	
☐ MATH 183	Multivariable Calculus	4
	OR	
☐ MATH 184	Linear Algebra/Differential Equations	5
☐ ENGR 152	Statics	3
	OR	
☐ ENGR 161	Materials Science	3
	AND	
☐ ENGR 162	Materials Science Lab	1
☐ AHC GE REQ	Area 4A: Social and Behavioral Sciences	3
☐ AHC GE Req	Area 6: Ethnic Studies	3
Total Units		13 - 15

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
☐ PHYS 162	Engineering Physics 2	4
	OR	
☐ MATH 183	Multivariable Calculus	4

	OR	
☐ MATH 184	Linear Algebra/Differential Equations	5
☐ AHC GE REQ	Area 5: Natural Science	3-4
☐ ENGR 154	Dynamics	3
	OR	
☐ ENGR 170	Electric Circuit Analysis	3
	AND	
☐ ENGR 171	Electric Circuit Lab	1
	OR	
☐ ENGR 156	Strength of Materials	4
☐ AHC GE REQ	Area 1B: Oral Comm. and Critical Thinking	3
☐ HED 100	Social and Personal Health and Wellness	3
Total Units		16 -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