

A major of 32 units is required for the degree.

Required core courses (17 units):

COURSE	TITLE	UNITS
<input type="checkbox"/> CHEM 150	General Chemistry 1	5
<input type="checkbox"/> MATH 182	Calculus 2	4
<input type="checkbox"/> PHYS 161	Engineering Physics 1	4
<input type="checkbox"/> PHYS 162	Engineering Physics 2	4
or		
<input type="checkbox"/> 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
<input type="checkbox"/> ENGR 152	Statics	3
<input type="checkbox"/> ENGR 154	Dynamics	3
<input type="checkbox"/> ENGR 156	Strength of Materials	4
<input type="checkbox"/> ENGR 161	Materials Science	3
and		
<input type="checkbox"/> ENGR 162	Materials Science Lab	1
<input type="checkbox"/> ENGR 170	Electric Circuit Analysis	3
and		
<input type="checkbox"/> ENGR 171	Electric Circuit Lab	1

Category B - Engineering Support

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

Recommended electives:

COURSE	TITLE	UNITS
<input type="checkbox"/> ENGR 100	Introduction to Engineering	1
<input type="checkbox"/> ENGR 124	Excel for Science and Engineering	1
<input type="checkbox"/> ENGR 126	MATLAB for Science and Engineering	1

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 pathway is designed to meet transfer requirements in Manufacturing Engineering at Cal Poly, SLO and earn a local AA degree in Engineering from AHC. It assumes students are entering AHC academically ready to enroll in CHEM 150 (General Chemistry) and MATH 181 (Calculus 1). If students are not academically ready for these courses, it is recommended that students enroll in the prior summer term to complete prerequisite courses (MATH 141 and CHEM 120) or see a counselor for adjustment to the plan.

FALL SEMESTER (YEAR 1)

Course	Title	Units
<input type="checkbox"/> ENGL 101	Freshman Composition: Exposition	4
<input type="checkbox"/> ENGR 100	Introduction to Engineering	1
<input type="checkbox"/> MATH 181	Calculus 1	4
<input type="checkbox"/> IGETC/AHC GE	US History Government	3

Total Units 12

Tasks:

- Complete Career Exploration
- Meet with Counselor (SEP)
- Visit library and tutoring
- Get involved with STEM
- Review Financial Aid Req.
- Apply AHC Scholarship
- Apply for MESA/STEM
- Engage w/STEM Tutors

SPRING SEMESTER (YEAR 1)

Course	Title	Units
<input type="checkbox"/> CHEM 150	General Chemistry 1	5
<input type="checkbox"/> MATH 182	Calculus 2	4
<input type="checkbox"/> PHYS 110	Introductory Physics	3

Total Units 12

Tasks:

- Meet with a STEM Counselor
- Set up Jobspeaker
- Attend Career Exploration Day
- Apply for STEM Internships
- Apply for STEM Scholarships
- Engage w/STEM Tutors
- Complete the FAFSA or Dream Act by March 2
- Apply AHC Scholarship
- Attend a Transfer Workshop
- Get involved with STEM

SUMMER SEMESTER (YEAR 2)

Course	Title	Units
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ENGL 103 Critical Thinking and Composition 3

IGETC/AHC GE Social Science 3

Total Units 6

Tasks

FALL SEMESTER (YEAR 2)

Course	Title	Units
<input type="checkbox"/> CHEM 151	General Chemistry 2	5
<input type="checkbox"/> MATH 183	Multivariable Calculus	4
<input type="checkbox"/> PHYS 161	Engineering Physics 1	4
<input type="checkbox"/> AHC Grad Req	Dance or Physical Activity	.5-3

Total Units 14

Tasks:

- Meet with a STEM Counselor
- Review Financial Aid Requirements
- Apply for AHC Scholarship
- Get involved with STEM
- Engage w/STEM Tutors

SPRING SEMESTER (YEAR 2)

Course	Title	Units
<input type="checkbox"/> MATH 184	Linear Algebra/Differential Equations	5
<input type="checkbox"/> PHYS 162	Engineering Physics 2	4
<input type="checkbox"/> ENGR 126	MATLAB for Science and Engineering	1
<input type="checkbox"/> CS 111	Fundamentals of Programming 1	4

Total Units 14

Tasks:

- Complete FAFSA or Dream Act by March 2
- Attend Job Fair/Career Exploration Day
- Get involved with STEM
- Meet with a STEM Counselor
- Engage w/STEM Tutors
- Apply for STEM Internships

- Apply for STEM Scholarships

SUMMER SEMESTER (YEAR 3)

Course	Title	Units
<input type="checkbox"/> BIOL 100	Introductory Biology	4
Total Units		7

Tasks

FALL SEMESTER (YEAR 3)

Course	Title	Units
<input type="checkbox"/> ENGR 152	Statics	3
<input type="checkbox"/> ENGR 161	Materials Science	3
<input type="checkbox"/> ENGR 162	Materials Science Lab	1
<input type="checkbox"/> PHYS 163	Engineering Physics 3	4
<input type="checkbox"/> HED 100	Social and Personal Health and Wellness	3
Total Units		14

Tasks:

- Meet with a STEM Counselor
- Develop Resume at Career Center
- Apply for University Transfer
- Engage w/STEM Tutors
- Review Financial Aid Requirements
- Apply for AHC Scholarship
- Get involved with STEM

SPRING SEMESTER (YEAR 3)

Course	Title	Units
<input type="checkbox"/> ENGR 154	Dynamics	3
<input type="checkbox"/> ENGR 170	Electric Circuit Analysis	3
<input type="checkbox"/> ENGR 171	Electric Circuit Lab	1
<input type="checkbox"/> WLDT 106	Beginning Welding	3
<input type="checkbox"/> IGETC/AHC GE	Humanities/Multinatural Course	3
Total Units		13

Tasks:

- Apply for Degree with Counseling
- Utilize Job Search Resources
- Complete: Transfer next steps
- Apply for STEM Internships
- Get involved with STEM
- Complete FAFSA or Dream Act by March 2
- Attend Job Fair/Career Exploration Day
- Apply for STEM Scholarships
- Engage w/STEM Tutors