Engineering for Transfer- Civil Engineering

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 pathway is designed to meet transfer requirements in Civil 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
☐ ENGL 101	Freshman Composition: Exposition	4
☐ ENGR 100	Introduction to Engineering	1
☐ MATH 181	Calculus 1	4
☐ IGETC/AHC GE	US History Government	3
☐ IGETC/AHC GE	Humanities/Multinatural Course	3
Total Units		15

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
☐ CHEM 150	General Chemistry 1	5
☐ MATH 182	Calculus 2	4
☐ PHYS 110	Introductory Physics	3
☐ ET 100	Computer Aided Drafting and Design	3
Total Units		15

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
☐ ENGL 103	Critical Thinking and Composition	3
☐ IGETC/AHC GE	Social Science	3
Total Units		6

Tasks

FALL SEMESTER (YEAR 2)

Course	Title	Units
☐ CHEM 151	General Chemistry 2	5
☐ MATH 183	Multivariable Calculus	4
☐ PHYS 161	Engineering Physics 1	4
☐ AHC Grad Req	Dance or Physical Activity	.5-3
Total Units		14

Tasks:

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

SPRING SEMESTER (YEAR 2)

Course	Title	Units
☐ ENGR 126	MATLAB for Science and Engineering	1
☐ MATH 184	Linear Algebra/Differential Equations	5
☐ PHYS 162	Engineering Physics 2	4
☐ 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
- Apply for STEM Scholarships

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- Meet with a STEM Counselor
- Engage w/STEM Tutors
- Apply for STEM Internships

SUMMER SEMESTER (YEAR 3)

Course	Title	Units
☐ BIOL 100	Introductory Biology	4
Total Units		7

Tasks

FALL SEMESTER (YEAR 3)

Course	Title	Units
☐ ENGR 152	Statics	3
☐ ENGR 161	Materials Science	3
☐ ENGR 162	Materials Science Lab	1
☐ HED 100	Social and Personal Health & Wellness	3
☐ PHYS 163	Engineering Physics 3	4
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
☐ ENGR 154	Dynamics	3
☐ ENGR 156	Strength of Materials	4
☐ ENGR 170	Electric Circuit Analysis	3
☐ ENGR 171	Electric Circuit Lab	1
☐ GEOL 100	Physical Geology	4
Total Units		14

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