

This program roadmap represents one possible pathway to complete the program. **Please see a counselor** to create an education plan that is customized to meet your needs. This roadmap is not a guarantee of course availability or financial aid applicability. For counseling appointments call 916.608.6510.

Total Units: 87-88

First Year

Semester 1

20 Units

COURSE	UNITS	PRE-REQS ^A	SEMESTERS OFFERED*	GE AREA
CHEM 400 General Chemistry I	5	See Note Below	F, S	L5
MATH C2210 Calculus I	5	PreCalculus	F, S	L2
ENGL C1000 College Composition	3		F, S	L1A
Arts & Humanities	3		F, S	L3
Major Elective List A ²	4		F, S	

¹ Chem 400 pre-requisites are intermediate algebra; and a college-level Chemistry course with a lab with a "C" or better or one year in high school Chemistry with a lab with a grade of "C" or better.

² Major Elective List A:

A minimum of 12 units from the following:

PHYS 350: General Physics (4 units)

PHYS 360: General Physics (4 units)

PHYS 411: Mechanics of Solids and Fluids (4 units)

PHYS 421: Electricity and Magnetism (4 units)

PHYS 431: Heat, Waves, Light and Modern Physics (4 units)

STAT 300: Introduction to Probability and Statistics (4 units)

Semester 2

16-17 Units

COURSE	UNITS	PRE-REQS ^A	SEMESTERS OFFERED*	GE AREA
MATH 401 Calculus II	5	MATH 400	F, S	
CHEM 401 General Chemistry II	5	CHEM 400	F, S	

Notes

- See FLC [AA/AS](#) General Education requirements.
- Some English and math courses have support courses (co-requisites). See your assessment results for more details.
- *This degree outlines the general requirements for students wishing to transfer to a four-year college or university in a STEM (Science, Technology, Engineering or Mathematics) major. Students should work closely with their counselor to determine the specific coursework required at their chosen transfer institution.*
- Students may earn credit for College Entrance Board Advanced Placement (AP) tests with scores of 3, 4, or 5. AP scores can be used to meet Folsom Lake College associate degree general education, CSU, UC, and other 4 year University requirements --Check with your counselor to determine whether these test results will be accepted at the transfer institution of your choice.

Zero Textbook Costs (ZTC):

COURSE	UNITS	PRE-REQS^	SEMESTERS OFFERED*	GE AREA
Living Skills: Life Development Skills	2-3		F, S	L7B
Major Elective List A¹	4		F, S	

¹ Major Elective List A:

A minimum of 12 units from the following:

PHYS 350: General Physics (4 units)

PHYS 360: General Physics (4 units)

PHYS 411: Mechanics of Solids and Fluids (4 units)

PHYS 421: Electricity and Magnetism (4 units)

PHYS 431: Heat, Waves, Light and Modern Physics (4 units)

STAT 300: Introduction to Probability and Statistics (4 units)

The Zero Textbook Costs designation and logo are added to any course that provides free access to all required instructional materials. These are typically shared with students through Canvas. Courses that are designated as ZTC may still require students to purchase supplemental materials such as lab coats, a calculator, art supplies, etc. See full definitions and searching tips on the [Zero Textbook Costs page](#) of the college website.

Second Year

Semester 3

16 Units

COURSE	UNITS	PRE-REQS^	SEMESTERS OFFERED*	GE AREA
MATH 402 Calculus III	5	MATH 401	F, S	
MATH 410 Introduction to Linear Algebra	3	MATH 401	F, S	
Ethnic Studies	3		F, S	L6
Physical Education Activity	1		F, S	
Major Elective A¹	4		F, S	

¹ Major Elective List A:

A minimum of 12 units from the following:

PHYS 350: General Physics (4 units)

PHYS 360: General Physics (4 units)

PHYS 411: Mechanics of Solids and Fluids (4 units)

PHYS 421: Electricity and Magnetism (4 units)

PHYS 431: Heat, Waves, Light and Modern Physics (4 units)

STAT 300: Introduction to Probability and Statistics (4 units)

Semester 4

15 Units

COURSE	UNITS	PRE-REQS^	SEMESTERS OFFERED*	GE AREA
MATH 420 Differential Equations	4	MATH 401	F, S	
Social & Behavioral Sciences	3		F, S	L4
Oral Communication and Critical Thinking	3		F, S	L1B
Major Elective List B¹	5		F, S	

¹ See List under Semester 5

Third Year

Semester 5

20 Units

COURSE	UNITS	PRE-REQS^	SEMESTERS OFFERED*	GE AREA
Major Elective	5		F, S	
Major Elective	5		F, S	
Major Elective	5		F, S	
Major Elective	5		F, S	

Major Elective List B:

A minimum of 25 units from the following:

BIOL 350: Environmental Biology (3 units)

BIOL 400: Principles of Biology (5 units)

BIOL 410: Principles of Botany (5 units)

OR BIOL 411: Plant Science (4 units)

BIOL 420: Principles of Zoology (5 units)

CHEM 420: Organic Chemistry I (5 units)

CHEM 421: Organic Chemistry II (5 units)

CISP 310: Assembly Language Programming for Microcomputers (4 units)

CISP 360: Introduction to Structured Programming (4 units)

CISP 400: Object Oriented Programming with C++ (4 units)

CISP 401: Object Oriented Programming with Java (4 units)

CISP 430: Data Structures (4 units)

CISP 440: Discrete Structures for Computer Science (3 units)

ENGR 303: Introduction to Logic Design (4 units)

ENGR 312: Engineering Graphics (3 units)

ENGR 400: Introduction to Electrical Circuits and Devices (3 units)

ENGR 420: Statics (3 units)

STAT 300: Introduction to Probability and Statistics (4 units)

(STAT 300 can only be used in this section if not already used in the previous section.)

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