FRESNO STATE
Chemistry and Biochemistry

High School Chemistry

Chem 1A *General Chem*

Chem 1B *General Chem*

Chem 128A *Organic Chem*

Chem 129A *Organic Lab*

Chem 129B *Organic Lab*

Chem 128B *Organic Chem*

Chem 155A *Biochemistry* (F)

Chem 155B *Biochemistry* (S)

Chem 102 *Analytical Chem*

Chem 156 *Biochem Lab*

Calculus Readiness Test

Math 75 or 75AB *Calculus* (B4)

Math 76 *Calculus*

Math 77 *Calculus* (Recommended)

Chem 110A *Physical Chem* (F)

Chem 112 *Biophys Chem* (S)

Phys 4A, AL *Mechanics* (B1)

Phys 4B, BL *Electricity*

Phys 4C *Light*

OR

Phys 2A *General Physics* (B1)

Phys 2B *General Physics*

Biol 1A *Intro Biology* (B2)

Biol 1B, BL *Intro Biology*

Biol 102 *Genetics*

Biology Electives
Select one upper division biology course (3 units)

Biol 103 *Cell Biology*

Biol 120 *Microbiology*

Other approved courses

Chemistry Electives (4-7 units)
Select two upper division chemistry courses

Chem 106/106S *Instrumental Lab* (F)
Chem 124 *Inorganic Lab* (S)
Chem 160H *Research Tech* (S)
Chem 111 *Phys Chem Lab* (S)
Chem 140T *Topics in Chem* (V)
Chem 165SH *Peer Instruction* (F)
Chem 123 *Inorganic Chem* (F)
Chem 161W *Scientific Writing* (V)
Chem 180H *Thesis* (F)
Chem 195 *Research*
Chem 199 *Thesis*

Add ACS Certification to your BS Biochemistry degree by selecting CHEM 123 and one of CHEM 111 or 124.

Upper Division Writing Requirement

Other approved courses

The preceding course (prerequisite) must be completed prior to enrolling in the following course.

The preceding course may be taken simultaneously or completed prior to enrolling in the following course.

This course will meet the specified general education requirement.

This course is typically offered only in the Fall/Spring semester, or the offering time Varies.

Recommended

Math 77 is strongly recommended but not required for Chem 110A and the BS Biochemistry degree.
The Physics 4A, 4B, and 4C sequence is recommended but the Physics 2A and 2B sequence may be taken in its place.

BS Biochemistry Degree Map

Last updated 4/23/26