BIOCHEMISTRY



Approved Sample Curriculum

The Chemistry Department offers a challenging program of study providing the student with a strong foundation in the basic areas of chemistry necessary to pursue advanced study in graduate or professional school. The Chemistry program allows the student majoring in Biochemistry the opportunity to earn a bachelor's degree, other science majors to broaden the scope of their knowledge and increase their potential as scientists with a Chemistry minor, and non-science majors to satisfy the general core requirements. The department highly recommends a second major or minor in any of the following areas: Biology, Business Administration, Computer Information Systems, Criminal Justice, Economics, Mathematics, or Physics. The Chemistry Department also offers a bachelor's degree in chemistry and a concentration in Forensic Science.

Second Century Core: Inner core courses identified with green text; outer core possibilities identified with purple text.

-EVEN YEAR START-

First Year

Fall	CR	Spring	CR
FYE 150 First Year Exploration	1	Communication Core	3
CHE 111/111L General Chemistry I and Lab (Science + Lab – Core)	4	CHE 113/113L General Chemistry II and Lab	4
MAT 151 Calculus and Analytical Geometry I (Math – Core)	4	MAT 152 Calculus and Analytical Geometry II	4
BIO 101/101L General Biology I	4	Social Science Core	3
History Core	3	Outer Core or Free Elective	3

Subtotal 16 Subtotal 17

Second Year

Fall	CR	Spring	CR
CHE 220/220L Organic Chemistry I and Lab	4	CHE 240/240L Organic Chemistry II and Lab	4
PHY 141/141L General Physics I and Lab	5	PHY 142/142L General Physics II and Lab	5
ENG 150 Literature, Writing and Research	3	BIO 206/206L Genetics and Lab	4
Fine Arts Core	3	Philosophy Lab Core #1	1
		Outer Core or Free Elective	3

Subtotal 15 Subtotal 17

Third Year

Fall	CR	Spring	CR
CHE 301 The Chemical Literature	1	CHE 304 Introduction to Chemical Research	1
CHE 339 Biochemistry I / CHE 342L Biochemistry Lab Methods	4	CHE 340 Biochemistry II	3
Foreign Language	3	CHE 385/CHE 385L Quantitative Analysis and Lab	4
English 200+ Core	3	Philosophy Core #2	3
Theology Core	3	Outer Core or Free Elective	3

Subtotal 14 Subtotal 14

Fourth Year

Fall	CR	Spring	CR
CHE 411 Senior Research I	2	CHE 412 Senior Research II	1
CHE 313/313L Physical Chemistry I and Lab	4	Theology Core	3
BIO 341/341L Molecular Genetics and Lab	4	Outer Core or Free Elective	3
Outer Core or Free Elective	3	Outer Core or Free Elective	3
Outer Core or Free Elective	3	Outer Core or Free Elective	3

Subtotal 16 Subtotal 13

Total Credits: 122

Note: This course pattern applies to students entering under the 2022-23 Academic Catalog and later. Updated – Spring 2024

^{*}CHE 314/314L, CHE 358/358L, CHE 415/415L, CHE 425, and CHE 435 are recommended as elective credit.

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-ODD YEAR START-

First Year

Fall	CR	Spring	CR
FYE 150 First Year Exploration	1	Communication Core	3
CHE 111/111L General Chemistry I and Lab (Science + Lab – Core)	4	CHE 113/113L General Chemistry II and Lab	4
MAT 151 Calculus and Analytical Geometry I (Math – Core)	4	MAT 152 Calculus and Analytical Geometry II	4
BIO 101/101L General Biology I	4	Social Science Core	3
History Core	3	Outer Core or Free Elective	3

Subtotal 16 Subtotal 17

Second Year

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CHE 220/220L Organic Chemistry I and Lab	4	CHE 240/240L Organic Chemistry II and Lab	4
PHY 141/141L General Physics I and Lab	5	PHY 142/142L General Physics II and Lab	5
ENG 150 Literature, Writing and Research	3	BIO 206/206L Genetics and Lab	4
Fine Arts Core	3	Philosophy Core #1	1
		Outer Core or Free Elective	3

Subtotal 15 Subtotal 17

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Fall	CR	Spring	CR
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CHE 313 Physical Chemistry I and Lab	4	Foreign Language	3
BIO 341/341L Molecular Genetics and Lab	4	Outer Core or Free Elective	3
English 200+ Core	3	Outer Core or Free Elective	3
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Subtotal 15 Subtotal 13

Fourth Year

Fall	CR	Spring	CR
CHE 411 Senior Research I	2	CHE 412 Senior Research II	1
CHE 339 Biochemistry I / CHE 342L Biochemistry Lab Methods	4	CHE 340 Biochemistry II	3
Philosophy Core #2	3	CHE 385/CHE 385L Quantitative Analysis and Lab	4
Outer Core or Free Elective	3	Theology Core	3
Outer Core or Free Elective	3	Outer Core or Free Elective	3

Subtotal 15 Subtotal 14

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