

CURRICULUM GUIDE FOR CHEMISTRY PROGRAM

(This is an example and not all Compass courses are listed or noted.)

BA DEGREE WITH A MAJOR IN BIOCHEMISTRY (STARTING IN FALL OF ODD NUMBERED YEARS)

32 semester hours in Chemistry

8 semester hours in Biology

3 or 4 semester hours in Pre-Calculus or Calculus I

YEAR 1

FALL	COURSE TITLE	CREDITS
BIOL 115	Fundamentals of Cell Biology and Genetics+Lab	4
CHEM 110	General Chemistry I + Lab	4
CMPS 101	Compass Navigator First-year	1
CMPS 110	CompassSeminarI:WritingandSpeaking	3
MATH117/ MATH 225	Precalculus with Algebra/ Calculus I	3-4

SPRING	COURSE TITLE	CREDITS
CHEM 111	General Chemistry II + Lab	4
CHEM 187	Introduction to Research I [^]	1
CMPS 111	Compass Seminar II: Research, Writing, and Speaking	3

YEAR 2

FALL	COURSE TITLE	CREDITS
CHEM 221	Organic Chemistry I + Lab	4

SPRING	COURSE TITLE	CREDITS
BIOL 270	Genetics + Lab	4
CHEM 222	Organic Chemistry II + Lab	4
CHEM 233	Analytical Chemistry (Spring Odd) + Lab	4

YEAR 3

FALL	COURSE TITLE	CREDITS
CHEM 340	Biochemistry	4
CHEM 385	Junior Seminar I: Chemical Literacy	1

SPRING	COURSE TITLE	CREDITS
CHEM 386	Junior Seminar II: Writing & Ethics	1
CHEM 446	Biochemistry II-Metabolism (Spring Even)	3

YEAR 4

FALL	COURSE TITLE	CREDITS
CMPS 450	Compass Seminar III	3

SPRING	COURSE TITLE	CREDITS
CHEM 347	Biochemical Methods (Spring Odd)	2
CHEM 499	Chemistry Capstone*	1

[^]CHEM 187 is not required but recommended. Students who desire more experience in the lab may choose CHEM 287, Introduction to Research II, after completing CHEM 187.

*A literature review is required; however, students may choose to enroll in CHEM 387 to perform laboratory research, and communicate their results.

THESE ELECTIVES ARE OPTIONAL

CHEM 310	Medicinal Chemistry (Spring Even)	3
CHEM 387	Laboratory Research	1
CHEM 435	Molecular Spectroscopy (Fall Even)	2
CHEM 436	Separation Methods (Fall Odd)	2

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YEAR 1

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BIOL 115	Fundamentals of Cell Biology and Genetics+Lab	4
CHEM 110	General Chemistry I + Lab	4
CMPS 101	Compass Navigator First-year	1
CMPS 110	CompassSeminarI:WritingandSpeaking	3
MATH117/ MATH 225	Precalculus with Algebra/ Calculus I	3-4

SPRING	COURSE TITLE	CREDITS
CHEM 111	General Chemistry II + Lab	4
CHEM 187	Introduction to Research I [^]	1
CMPS 111	Compass Seminar II: Research, Writing, and Speaking	3

YEAR 2

FALL	COURSE TITLE	CREDITS
CHEM 221	Organic Chemistry I + Lab	4

SPRING	COURSE TITLE	CREDITS
BIOL 270	Genetics + Lab	4
CHEM 222	Organic Chemistry II + Lab	4

YEAR 3

FALL	COURSE TITLE	CREDITS
CHEM 340	Biochemistry	4
CHEM 385	Junior Seminar I: Chemical Literacy	1

SPRING	COURSE TITLE	CREDITS
CHEM 233	Analytical Chemistry (Spring Odd) + Lab	4
CHEM 347	Biochemical Methods (Spring Odd)	2
CHEM 386	Junior Seminar II: Writing & Ethics	1

YEAR 4

FALL	COURSE TITLE	CREDITS
CMPS 450	Compass Seminar III	3

SPRING	COURSE TITLE	CREDITS
CHEM 446	Biochemistry II-Metabolism (Spring Even)	3
CHEM 499	Chemistry Capstone*	1

[^]CHEM 187 is not required but recommended. Students who desire more experience in the lab may choose CHEM 287, Introduction to Research II, after completing CHEM 187.

*A literature review is required; however, students may choose to enroll in CHEM 387 to perform laboratory research, and communicate their results.

THESE ELECTIVES ARE OPTIONAL		
CHEM 310	Medicinal Chemistry (Spring Even)	3
CHEM 387	Laboratory Research	1
CHEM 435	Molecular Spectroscopy (Fall Even)	2
CHEM 436	Separation Methods (Fall Odd)	2

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BS DEGREE WITH A MAJOR IN BIOCHEMISTRY (STARTING IN FALL OF ODD NUMBERED YEARS)

36-37 semester hours in Chemistry*

8 semester in Physics I-II

11 semester in Biology

4 semester hours in Calculus I

YEAR 1

FALL	COURSE TITLE	CREDITS
BIOL 115	Fundamentals of Cell Biology and Genetics + Lab	4
CHEM 110	General Chemistry I + Lab	4
CMPS 101	Compass Navigator First-year	1
CMPS 110	Compass Seminar I: Writing and Speaking	3
MATH117/ MATH 225	Precalculus with Algebra/ Calculus I	3-4

SPRING	COURSE TITLE	CREDITS
CHEM 111	General Chemistry II + Lab	4
CHEM 187	Introduction to Research I [^]	1
CMPS 111	Compass Seminar II: Research, Writing, and Speaking	3

YEAR 2

FALL	COURSE TITLE	CREDITS
CHEM 221	Organic Chemistry I + Lab	4
MATH 225	Calculus I (if needed)	4
PHYS 110	Elements of Physics I + Lab	4

SPRING	COURSE TITLE	CREDITS
CHEM 222	Organic Chemistry II + Lab	4
CHEM 233	Analytical Chemistry (Spring Odd) + Lab	4
PHYS 111	Elements of Physics II + Lab	4
BIOL 270	Genetics + Lab	4

YEAR 3

FALL	COURSE TITLE	CREDITS
CHEM 340	Biochemistry	4
CHEM 385	Junior Seminar I: Chemical Literacy	1

SPRING	COURSE TITLE	CREDITS
CHEM 386	Junior Seminar II: Writing & Ethics	1
CHEM 446	Biochemistry II-Metabolism (Spring Even)	3

YEAR 4

FALL	COURSE TITLE	CREDITS
BIOL 350	Advanced Cell Biology (Fall Even)	3
CHEM 387	Laboratory Research*	1
CMPS 450	Compass Seminar III	3

SPRING	COURSE TITLE	CREDITS
CHEM 338	Physical Chemistry I [#]	4
CHEM 347	Biochemical Methods (Spring Odd)	2
CHEM 499	Chemistry Capstone	1

[^]CHEM 187 is not required but recommended. Students who desire more experience in the lab may choose CHEM 287, Introduction to Research II, after completing CHEM 187.

[#]Please contact the Chemistry Program for scheduling of CHEM 338.

*Students may complete laboratory research through a summer internship.

THESE ELECTIVES ARE OPTIONAL		
CHEM 310	Medicinal Chemistry (Spring Even)	3
CHEM 435	Molecular Spectroscopy (Fall Even)	2
CHEM 436	Separation Methods (Fall Odd)	2

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CHEM 110	General Chemistry I + Lab	4
CMPS 101	Compass Navigator First-year	1
CMPS 110	Compass Seminar I: Writing and Speaking	3
MATH117/ MATH 225	Precalculus with Algebra/ Calculus I	3-4

SPRING	COURSE TITLE	CREDITS
CHEM 111	General Chemistry II + Lab	4
CHEM 187	Introduction to Research I [^]	1
CMPS 111	Compass Seminar II: Research, Writing, and Speaking	3

YEAR 2

FALL	COURSE TITLE	CREDITS
CHEM 221	Organic Chemistry I + Lab	4
MATH 225	Calculus I (if needed)	4
PHYS 110	Elements of Physics I + Lab	4

SPRING	COURSE TITLE	CREDITS
BIOL 270	Genetics + Lab	4
CHEM 222	Organic Chemistry II + Lab	4
PHYS 111	Elements of Physics II + Lab	4

YEAR 3

FALL	COURSE TITLE	CREDITS
BIOL 350	Advanced Cell Biology (Fall Even)	3
CHEM 340	Biochemistry	4
CHEM 385	Junior Seminar I: Chemical Literacy	1

SPRING	COURSE TITLE	CREDITS
CHEM 233	Analytical Chemistry (Spring Odd) + Lab	4
CHEM 347	Biochemical Methods (Spring Odd)	2
CHEM 386	Junior Seminar II: Writing & Ethics	1

YEAR 4

FALL	COURSE TITLE	CREDITS
CHEM 387	Laboratory Research*	1
CMPS 450	Compass Seminar III	3

SPRING	COURSE TITLE	CREDITS
CHEM 338	Physical Chemistry I [#]	4
CHEM 446	Biochemistry II-Metabolism (Spring Even)	3
CHEM 499	Chemistry Capstone	1

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[#]Please contact the Chemistry Program for scheduling of CHEM 338.

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CHEM 310	Medicinal Chemistry (Spring Even)	3
CHEM 435	Molecular Spectroscopy (Fall Even)	2
CHEM 436	Separation Methods (Fall Odd)	2