

CHEMISTRY MAJOR COURSE OUTLINE

General Chemistry

FALL		SPRING	
CHEM 125 – General Chemistry I CHEM 135 – General Chemistry Lab I		CHEM 126 – General Chemistry II CHEM 136 – General Chemistry Lab II	
OR			
CHEM 140 – Advanced General Chemistry (includes lab)			

Mathematics

MATH 125 – Calculus I	OR	MATH 125 – Calculus I
MATH 126 – Calculus II	OR	MATH 126 – Calculus II
MATH 225 – Calculus III	OR	MATH 225 – Calculus III

Organic Chemistry

CHEM 245 – Organic Chemistry I CHEM 251 – Organic Laboratory Techniques I	OR	CHEM 245 – Organic Chemistry I CHEM 251 – Organic Laboratory Techniques I
CHEM 246 – Organic Chemistry II CHEM 252 – Organic Laboratory Techniques II	OR	CHEM 246 – Organic Chemistry II CHEM 252 – Organic Laboratory Techniques II

Physical Chemistry

CHEM 345 – Physical Chemistry I	CHEM 346 – Physical Chemistry II CHEM 352 – Physical Chemistry Lab
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Analytical Chemistry

CHEM 310 – Quantitative Analysis and Chemical Equilibrium	CHEM 320 – Instrumental Methods of Analysis
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Inorganic Chemistry

CHEM 360 – Inorganic Chemistry	
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Advanced Lab

CHEM 370 – Advanced Methods	OR	CHEM 370 – Advanced Methods
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Seminar* (at least 1 credit before final semester) *may be taken multiple times for credit

CHEM 401 – Chemistry Seminar	AND OR	CHEM 402 – Chemistry Seminar
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CHEMISTRY MAJOR COURSE OUTLINE

Senior Thesis (at least 2 credits)

FALL		SPRING	
CHEM 490 – Senior Thesis OR CHEM 498 – Honors Thesis	AND OR	CHEM 490 – Thesis OR CHEM 498 – Honors Thesis	

ACS CERTIFICATION (add Biochemistry, Physics, and additional labs*)

PHYS 145 – General Physics I, with applications	OR	PHYS 155 – General Physics I
PHYS 156 – General Physics II	OR	PHYS 146 – General Physics II, with applications...
BBMB 325 – Biochemistry	OR	BBMB 325 – Biochemistry

(Note: BIOL 111 is a pre-requisite for BBMB 325)

**In addition to the major requirements, you must have an additional 78 hours of chemistry lab. This is fulfilled with 2 credits of lab-based research (CHEM 390/490/498) or electives totaling 2 labs a week (ex. CHEM 390 AND CHEM 388).*

ELECTIVES*

CHEM 275 – Computational Chemistry CHEM 333 – Drug Design CHEM 390 – Student Research CHEM 388 – Environmental Chemistry and Engineering (L) CHEM 401 – Chemistry Seminar CHEM 425 – Computational Biochemistry CHEM 451 – Independent Study	CHEM 305 – Global Chemical Cycles CHEM 340 – Materials Chemistry CHEM 390 – Student Research CHEM 402 – Chemistry Seminar CHEM 447 – Physical Organic Chemistry CHEM 456 – Advanced Organic Synthesis CHEM 452 – Independent Study CHEM 460 – Bioinorganic Chemistry
<p>*All elective courses are not offered every year. Inquire with the instructor about future offerings. The list represents the most likely offerings and is subject to change. (L) = includes lab component</p>	

DISTRIBUTION

First-Year Seminar (two semesters during the first year, e.g. GENS-175 and GENS-176) 2 courses totaling at least 6 credits in cultural pluralism A minimum of 6 credits in fine arts (music, art, dance, film and media, theater, some literature courses, etc.) A minimum of 6 credits in humanities (languages, literature, religion, philosophy, etc.) A minimum of 6 credits in social sciences (anthropology, economics, politics, psychology, sociology, etc.) A minimum of 6 credits in sciences (automatically fulfilled by completing a science major) A minimum of 3 credits in quantitative analysis (automatically fulfilled by completing a science major)
