

Chemistry Major- Model Plan^{1,2}

Year	Fall Semester	Spring Semester
First	<u>CHEM 140</u> General Chemistry (4) <u>MATH 151</u> Calculus I ^{3,4} (4) or MATH 141 Pre-Calculus ⁴ (4) or BIOL 150 ⁵ (4)	<u>CHEM 220</u> Intro to Analytical Chemistry (3) <u>CHEM 225</u> Intro. to Analytical Chemistry Lab (2) <u>MATH 152</u> Calculus II, MATH 151 or MATH 141(4)
Second	<u>CHEM 228</u> Organic Chemistry I (4) <u>PHYS 130</u> Physics I (4) (<u>MATH 151</u> Calculus I, if not earlier) <u>BIOL 150</u> if not earlier	<u>CHEM 230</u> Organic Chemistry II (4) <u>PHYS 132</u> Physics II (4) (<u>MATH 152</u> Calculus II, if not earlier)
Third	CHEM 312 Physical Chemistry I (4) BIOC 330 Biochemistry (3) BIOC 335 Biochemistry Lab (1) CHEM 350 Science Seminar (1)	CHEM 322 Physical Chemistry II (4) CHEM 350 Science Seminar (1)
Fourth	CHEM 430 Research ⁶ (1-3) CHEM 350 Science Seminar(1) Elective (Advanced Course) ⁷ (3) CHEM 340 Adv. Analytical Chemistry ⁸ (3) CHEM 325 Integrated Lab ⁸ (2)	CHEM 430 Research ⁶ (1-3) CHEM 350 Science Seminar(1) Elective (Advanced Course) ⁷

Legend

Underline indicates that the course must be taken in sequence.

Semester hours for each course are given in parentheses

Notes:

- Incoming students** interested in a Chemistry Major must begin their first semester in CHEM 140, General Chemistry, and are encouraged to discuss their schedule with a faculty member in the Chemistry Department before the end of the first week of the Fall Semester. Students who have AP Chemistry credit must talk to a Chemistry Department faculty member to discuss placement in the correct course.
- Chemistry majors usually **do not** take their Modern Foreign Language (MFL) requirement until their second year.
- Students are highly encouraged to complete the calculus requirement as soon as possible. Calculus I (MATH 151) is a pre/co-requisite for Physics I (PHYS 130) and both Calculus I and II and Physics I and II are prerequisites for Physical Chemistry I and II (CHEM 312 and CHEM 322). Delaying Calculus will therefore delay Physical Chemistry and may require a heavy load in the senior year.
- Students who have had a pre-calculus or calculus course should start in Calculus I (MATH 151). Other students may be capable of beginning in Calculus I (MATH 151); please consult a member of the Mathematics Department to help make this decision.
- Chemistry majors are strongly encouraged to take BIOL150 in either their first or second year, as the material will aid their learning in Biochemistry (BIOC 330). This course will fulfill the Life Science General Education requirement.
- Research is an option for all chemistry majors beginning in their second year. CHEM 430 must be taken for a minimum of 3 semester hours of credit for graduation.
- Students are encouraged to take advanced courses in chemistry. Advanced courses consist of CHEM 362, Advanced Physical Chemistry, CHEM 370 Advanced Inorganic Chemistry, CHEM 380 Advanced Organic Chemistry, and BIOC 390 Advanced Biochemistry. Advanced courses are usually offered on an every other year basis. Some students may want to take an advanced course in their Third Year.
- Advanced Analytical Chemistry and Integrated Lab will be taught in the Fall semester beginning in the 2009-10 school year; previously these courses were taught in the Spring semester.

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