

Chemistry Major Advising Guide 2014-2015

Chemistry brings people and problems together. As chemists, our studies range from the measurement of physical properties to the biological effects of small molecules. Study in chemistry forms a firm foundation for progress in many other disciplines. Students who have studied chemistry at Alma College are currently solving environmental problems, working to provide energy solutions, developing pharmaceuticals, and treating patients, among many other applications and careers.

Recommendations for the first year in a course of study that is headed towards a major in chemistry include:

	Fall Term	Winter Term
Courses in area of Study:	CHM 115	CHM 223
Cognates:	MTH 121 or MTH 112	MTH 122 or MTH 121
First Year Requirements:	FYS 101	ENG 101
General Education/Other:	BIO 121 Foreign Language Humanities Social Science	Foreign Language Humanities Social Science

Notes:

1. To be successful in CHM 115, placement in at least Precalculus (MTH 112) is required. To be clear, this means that a student would score at a level on the Math Placement test, placing the student in MTH 112 or higher; this does not require that a mathematics course be taken as a corequisite to CHM115.
2. CHM115 is offered in the Fall and Winter term, providing more than one point of entry to the Chemistry major. Please recognize that we have scheduled 80% of the CHM115 class seats for the Fall and 20% for the Winter. Delaying starting Chemistry to the Winter term may provide a student with the opportunity to strengthen their Math preparation before starting CHM115. However, delaying starting CHM115 to the second year makes it difficult to finish a Chemistry major in three years. In order to stay on track for Chemistry 224 for the fall of sophomore year, students electing to delay Chemistry 115 to Winter Term 2014 should enroll in Chemistry 223 for Spring Term 2014. Athletes planning to participate in Spring Term sports should be discouraged from electing this option. To help manage enrollment, students should preregister for these Winter Term sections during BASD. Through preregistration in the special zero credit section

listed in the Portal under Fall courses students can reserve a seat in this limited Winter Term section (look for CHM-115-WI15). If a student intends to take CHM115 during the first year, the student should register for either a Fall or Winter section during BASD.

3. Students should be strongly encouraged to start calculus at some level in the first year allowing a natural progression into physics and physical chemistry. (To help understand the need for preplanning and to understand the sequence of courses, please download and print our four year plan at <http://www.alma.edu/academics/chemistry/chemistry-department/pathways-to-a-chemistry-major/>)
4. If you are interested in the Chemistry / Pre-Medical track, it is highly recommended that a well prepared student start with Chemistry, Math and Biology in the first year.
5. Past experience suggests that students who take Biochemistry in the fall of their junior years are more successful on the MCAT (the medical school admissions exam). Rather than recommend specific course work, the Association of American Medical Colleges recommends students focus on specific competencies in preparation for MCAT starting in 2015; biochemistry has been identified as one of the competencies covered on the MCAT. Keep in mind that Biochemistry requires two years of chemistry as a prerequisite and that the MCAT is typically taken in the spring following the third year.

Recommendations for a course schedule with a delay for starting CHM 115 to the Winter Term would look like this:

	Fall Term	Winter Term	Spring Term
Courses in area of Study:		CHM 115	CHM 223
Cognates:	MTH 112	MTH 121	
First Year Requirements:	FYS 101	ENG 101	
General Education / Other:	BIO 121 Foreign Language Humanities Social Science	Foreign Language Humanities Social Science	