

THE CHEMISTRY MAJOR (BA OR BS)

Professor: Anthony K. Grafton
Associate Professor: Irosha Nawarathne
Assistant Professors: Barry Gehm
Visiting Assistant Professor: Carl Hollandsworth

The chemistry major is designed to guide students toward understanding the principles underlying the composition, structure, and properties of substances—both natural and man-made—and the transformations they undergo. The program emphasizes helping students become knowledgeable observers and independent, imaginative problem-solvers, using state-of-the-art equipment in a laboratory setting.

Both Bachelor of Science and Bachelor of Arts degrees are available in chemistry. The B.S. is designed primarily for students who wish to pursue graduate studies within the chemical sciences or seek employment in chemistry related fields. Students planning to enter health-allied professional schools may choose either the B.S. or B.A. degree

MTH 230, CHM 224, and CHM 356 are recommended for those planning to pursue graduate education in chemistry or employment in the chemical industry.

MTH 220 Calculus II is recommended for students who want to pursue the B.A. degree.

NOTES

* Students may take CHM 105, CHM 110, MTH 210 and PHY 240/241 to satisfy core requirements.

* CHM 105 is not required for students who enter Lyon College with a score of 25 or better on the ACT mathematics section (or equivalent SAT score) and a grade of "C" or better in high school chemistry.

Program: Chemistry

SUMMARY OF REQUIREMENTS FOR A MAJOR IN CHEMISTRY LEADING TO A BACHELOR OF SCIENCE DEGREE

Item #	Title	Credits
CHM 105	Introduction to Chemistry	4
CHM 110	General Chemistry I	4
CHM 120	General Chemistry II	4
CHM 210	Organic Chemistry I	4
CHM 220	Organic Chemistry II	4
CHM 302	Instrumental Analysis	4
CHM 350	Chemical Thermodynamics and Kinetics	4
CHM 360	Quantum Chemistry and Spectroscopy	4
CHM 370	Junior Seminar	1
CHM 413	Advanced Inorganic Chemistry	4
CHM 490	Senior Seminar	1
MTH 210	Calculus I	4

MTH 220	Calculus II	4
PHY 240	Fundamentals of Physics I	3
PHY 241	Fundamentals of Physics I Laboratory	1
PHY 250	Fundamentals of Physics II	3
PHY 251	Fundamentals of Physics II Laboratory	1
	Chemistry Elective (3-4 credits)	3 - 4
	Sub-Total Credits	53-58

SUMMARY OF REQUIREMENTS FOR A MAJOR IN CHEMISTRY LEADING TO A BACHELOR OF ARTS DEGREE

Item #	Title	Credits
CHM 105	Introduction to Chemistry	4
CHM 110	General Chemistry I	4
CHM 120	General Chemistry II	4
CHM 210	Organic Chemistry I	4
CHM 220	Organic Chemistry II	4
CHM 302	Instrumental Analysis	4
CHM 350	Chemical Thermodynamics and Kinetics	4
CHM 370	Junior Seminar	1
CHM 490	Senior Seminar	1
MTH 210	Calculus I	4
	General Physics or Fundamentals of Physics	8
	Chemistry Elective (3-4 credits)	3 - 4
	Sub-Total Credits	41-46

CATEGORY DESCRIPTIONS

Chemistry Elective (3-4 credits)

Select one of the following:

Item #	Title	Credits
CHM 224	Quantitative Analysis	4
CHM 304	Environmental Chemistry	4
CHM 356	Biochemistry	4
CHM 482	Topics in Chemistry	3

General Physics or Fundamentals of Physics

Select one of the following course sequences:

GENERAL PHYSICS

Item #	Title	Credits
PHY 210	General Physics I	3
PHY 211	General Physics I Laboratory	1
PHY 220	General Physics II	3
PHY 221	General Physics II Laboratory	1
	Sub-Total Credits	8

FUNDAMENTALS OF PHYSICS

Item #	Title	Credits
PHY 240	Fundamentals of Physics I	3
PHY 241	Fundamentals of Physics I Laboratory	1
PHY 250	Fundamentals of Physics II	3
PHY 251	Fundamentals of Physics II Laboratory	1
	Sub-Total Credits	8