



2020-2021

## CHEMISTRY MAJOR, B.A.

Science & Health Department; School of Science, Health & Mathematics

Chemistry is a branch of the physical sciences involving the study of matter and its changes. It focuses on the composition, characteristics, changes, and uses of substances and energy. It also explores the benefits and dangers of those substances to people. The chemistry major provides students with experience in each of the sub disciplines of chemistry: inorganic, organic, analytical, biological and physical. Employment opportunities in chemistry are excellent. Qualified, creative graduates find employment in many areas, including teaching, research in virtually any industry, law enforcement, healthcare, or in environmental science. Excellent fellowships and assistantships are available for those going on to graduate school.

*To graduate must complete all major requirements, foundational requirements, and additional electives needed for 124 hour minimum degree requirement.*

### MAJOR REQUIREMENTS (57-67) (54 Core + 3-13 Concentration)

__ 2	BIO	341	Ethical Issues
__ 3	CHE	121	Gen College Chemistry I
__ 3	CHE	122	Gen College Chemistry II
__ 1	CHE	123	Gen College Chemistry Lab I
__ 1	CHE	124	Gen College Chemistry Lab II
__ 4	CHE	201	Organic Chemistry __ Lab
__ 4	CHE	202	Organic Chemistry __ Lab
__ 4	CHE	321	Analytical Chemistry __ Lab
__ 3	CHE	322	Chemical Instrumentation __ Lab
__ 4	CHE	421	Physical Chemistry __ Lab
__ 4	CHE	422	Physical Chemistry __ Lab
__ 1	CHE	475	Senior Seminar
__ 4	MAT	181	Calculus I __ Lab
__ 4	MAT	182	Calculus II __ Lab

Choose one:

__ 4	BIO	372+374	Cell & Molecular Biology
	CHE	371	Biochemistry __ Lab

Complete one:

__ 4-5	PHY	201	Intro Physics I __ Lab
	PHY	211	General Physics I __ Lab __ Recitation

Complete one:

__ 4-5	PHY	202	Intro Physics II __ Lab
	PHY	212	General Physics II __ Lab __ Recitation

REQUIRED CONCENTRATION (choose one):

#### CHEST - STANDARD TRACK (3)

__ 1	CHE	399	Intro to Chem Research
__ 2	CHE	400	Senior Research

#### CHEAC - ADVANCED TRACK (13)

__ 3	CHE	382	Inorganic Chemistry
__ 3	CHE	435	Internship
__ 4	MAT	183	Calculus III __ Lab
__ 3	MAT	252	Diff Equations/Modeling

#### PLUS FOUNDATIONAL REQUIREMENTS (43)

(3 hours Math and 4 hours Science satisfied by required major courses.)

Plus electives needed for the 124 hour degree requirement (14-24, depending on Concentration)