

B.A. in Chemistry with a Concentration in . . .

First Semester			Second Semester		
CHM 115	Elements & Compounds	3	CHM 116	The Chemical Reaction	3
CHM 113	Elements & Compounds Lab	1	CHM 114	The Chemical Reaction Lab	1
MTH 111	Calculus I	4	MTH 112	Calculus II	4
ENG 101	English 101	4	CS 125	Computer Science I	4
FYF 101	First Year Foundations	3		Distribution Requirement	3
Semester Total		15	Semester Total		15
Third Semester			Fourth Semester		
CHM 231	Organic Chemistry I	3	CHM 232	Organic Chemistry II	3
CHM 233	Organic Chemistry I Lab	1	CHM 234	Organic Chemistry II Lab	1
PHY 201	Physics I	4	PHY 202	Physics II	4
<i>prg 101</i>	<i>Program Elective</i>	3	CHM 248	Analytical Chemistry	3
	Distribution Requirement	3	CHM 246	Analytical Chemistry Lab	1
	Distribution Requirement	3	MTH 212	Multivariate Calculus	4
Semester Total		17	Semester Total		16
Fifth Semester			Sixth Semester		
CHM 341	Instrumental Analysis	3	CHM 322	Inorganic Chemistry	3
CHM 343	Instrumental Analysis Lab	1	CHM 365	Medical Biochemistry	4
CHM 355	Physical Chem./Life Sciences	3	CHM 370	Integrated Chemistry Lab	1
CHM 357	Physical Chem./Life Sci. Lab	1	CHM 390	Junior Seminar	1
<i>prg 201</i>	<i>Program Elective</i>	3	<i>prg 202</i>	<i>Program Elective</i>	3
	Distribution Requirement	3		Distribution Requirement	3
Semester Total		14	Semester Total		15
Seventh Semester			Eighth Semester		
CHM 391	Senior Research	2	CHM 392	Senior Research	2
CHM 371	Integrated Chemistry Lab	1	<i>prg 302</i>	<i>Program Elective</i>	3
<i>prg 301</i>	<i>Program Elective</i>	3	<i>prg 304</i>	<i>Program Elective</i>	3
<i>prg 303</i>	<i>Program Elective</i>	3		Free Elective	3
	Distribution Requirement	3		Free Elective	3
	Free Elective	3			
Semester Total		15	Semester Total		14
Grand Total					121

⇒ Students in the B.A. program are required to complete 2 credits (total) of Integrated Laboratory (CHM 370/371/372).

Overview

The B.A. degree is available for students who desire additional flexibility to prepare for a career in secondary education, the health professions (such as medicine, dentistry, etc.), law, business, engineering, computer science, art restoration, or other related fields. The B.A. program in Chemistry includes a concentration in another discipline, thereby allowing the student to gain a solid, fundamental background in Chemistry in combination with another subject. The ultimate goal is to create a curriculum that is easily adapted to the ever-changing challenges of modern society and of multidisciplinary academic endeavors. The B.A. program in Chemistry may be ACS-accredited, depending upon the student's choice of chemistry courses. In all cases, students will choose specific courses in a concentration after consultation with departmental advisers.

Although the courses listed for the concentrations below are not exact requirements, they are strongly recommended by the department. Students desiring concentrations not listed are encouraged to propose a set of program electives to the department.

Two credits of integrated lab are required for the B.A. The first should be taken in the sixth semester, but the second may be taken in either the seventh or eighth semester.

Art

ART 121, 140, 141, and 240 are offered on an irregular basis, and should be taken when available.

<i>prg 101</i>	ART 140	History of Art I
<i>prg 201</i>	ART 113	Drawing I
<i>prg 202</i>	ART 141	History of Art II
<i>prg 301</i>	ART 120	Painting I
<i>prg 302</i>	ART 123	Ceramics
<i>prg 303</i>	ART 122	Sculpture
<i>prg 304</i>	ART 240	Modern Art Design

Required Distribution Courses

ART 101	Introduction to Art
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Required Free Electives

ART 121	Printmaking
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Computer Science

Add *prg 203* to 5th semester.

<i>prg 101</i>	CS 126	Computer Science II
<i>prg 201</i>	CS 225	Computer Science III
<i>prg 202</i>	CS 226	Computer Science IV

At least five Program Electives should be chosen from the following. (*nb.* Upper-level CS courses are offered every other year.)

CS 319	Programming Languages
CS 324	Systems Analysis
CS 325	Database Mgt.
CS 327	Compiler Design
CS 328	Algorithms
CS 334	Software Engineering
MTH 231	Discrete Mathematics
MTH 364	Numerical Analysis

Forensic Sciences

<i>prg 101</i>	BIO 121	Intro Bio I
<i>prg 201</i>	SOC 222	Criminology
<i>prg 202</i>		<i>distribution</i> (rec. PSY 101)
<i>prg 301</i>	CHM 398	Forensic Chemistry
<i>prg 302</i>	PSY 242	Personality
<i>prg 303</i>	PS 232	Criminal Law
<i>prg 304</i>	PSY 355	Forensic Psychology

Required Distribution Courses

PSY 101	Intro Psychology
SOC 101	Intro Sociology
EC 102	Microeconomics

Required Free Electives

MTH 150	Elementary Statistics
BIO 226	Cell and Molec. Bio.
BIO 345	Genetics

Recommended Major Elective

Replace (CHM 355/7 + Free Elective) with (CHM 351/3 and CHM 352/4).

Premedical Studies

<i>prg 101</i>	BIO 121	Intro Bio I
<i>prg 201</i>	CHM 361	Biochemistry I
<i>prg 202</i>	BIO 122	Intro Bio II
<i>prg 204</i>	BIO 226	Cell and Molecular Bio

In addition, at least three courses should be chosen from the list below, in consultation with Constance Dombroski:

BIO 321	Mammalian Physiology
BIO 323	Functional Histology
BIO 325	Endocrinology
BIO 326	Immunology/Immunochem
BIO 327	Medical Microbiology
BIO 327	Medical Microbiology
BIO 328	Developmental Bio.
BIO 329	Virology
BIO 345	Genetics
BIO 398	Medical Ethics
CHM 398	Brain Chemistry
CHM 398	Medicinal Chemistry

Note that:

- Pre-Optometry students should take BIO 327 and BIO 226.
- Students in the Guthrie program should take BIO 398-D (medical ethics).
- Pre-Dental students should include ART 122 (sculpture) as a distribution requirement.

The following switches should be made:

- Move the 6th semester Distribn Course to another semester, and replace it with *prg 204*.
- Replace CHM 365 with CHM 362.

Required Distribution Course

PSY 101	Introductory Psychology
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Suggested Distribution Course

SP 210	Medical Spanish
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Secondary Education

(See separate sheet)

Sustainability

3 credits from the following:

ENG 228	Professional Writing
ENG 202	Technical Writitng

6 credits from the following:

BA 335	Law and Business
PS 260	Intro to Political Thinking
PS 224	Public Policy Analysis

3 credits from the following:

PHL 218	Environmental Ethics*
PHL 350	Philosophy of Science
* strongly recommended	

21 credits from the following:

EES 210	Global Climate Change
EES 240	Environm. Science
ENV 330	Water Quality
ENV 332	Air Quality
EES 344	Ecology
EES 271	Env. Mapping I: GPS
EES 272	Env. Mapping II: GIS
EES 304	Env. Data Analys.
EES 398	Topics in EES
ENV 305	Solid Waste
ENV 315	Soils
ENV 321	Hydrology
ENV 351	Wastewater
ENV 353	Air Pollution
ENV 354	Hazardous Waste
ENV 398	Topics in Engineering
ME 322	Engineering Thermo.
ME 325	Energy Systems