

Bachelor of Science in Chemistry (non-comprehensive)

This is a model four-year graduation plan. Your path to graduation may vary slightly based on factors such as college credit you earned while in high school and your choice of general education electives.

This degree program can be completed in eight semesters.

First Semester (Fall)

GEP 101 First Yr. Foundations	2 hrs
ENG 110 Writing I	3 hrs
CHM 160 Gen. Chem. I	4 hrs
CHM 161 Gen. Chem. I Lab	1 hr
MTH 261 or 287 ¹ Analytical Geom./Calc. I	3-5 hrs
Total Hours	13-15 hrs

Second Semester (Spring)

CHM 170 Gen. Chem. II	3 hrs
CHM 171 Gen. Chem. II Lab	1 hr
MTH 280 or 288 Analytical Geom./Calc. II	3-5 hrs
COM 115 Fundamentals in Public Speaking	3 hrs
PLS 101 American Democracy/Citizenship	3 hrs
Total Hours	13-15 hrs

Third Semester (Fall)

CHM 342 Organic Chem. I	3 hrs
ENG 210 Writing II	3 hrs
CHM 302 Intro to Analytical Chemistry	5 hrs
Natural World: Life Sciences	3-4 hrs
Total Hours	14-15 hrs

Fourth Semester (Spring)

PHY 123 Intro. to Physics I	4 hrs
CHM 343 Organic Chem. II	3 hrs
Course for Minor	3 hrs
CHM 398 Chemical Symposium	1 hr
Human Cultures: Social/Behavioral Sciences	3 hrs
CHM 345 Organic Chemistry Lab	2 hrs
Total Hours	16 hrs

Fifth Semester (Fall)

PHY 124 Intro. to Physics II	4 hrs
CHM 375 Inorganic Chemistry	3 hrs
HST 121 or 122 Survey of U.S. History	3 hrs
Public Affairs: Cultural Competence elective	3 hrs
CHM 445 Intermediate Organic Chem Lab	2 hrs
Total Hours	15 hrs

Sixth Semester (Spring)

CHM 504 ^{2,3} Fundamentals of Physical Chem	3 hrs
CHM 505 Fundamentals of Physical Chem Lab	1 hr
Chemistry Electives*	3 hrs
CHM 399 Undergraduate Research	1 hr
Course for Minor	3 hrs
1 Humanities Elective and 1 Arts elective	3+3 hrs
Total Hours	17 hrs

Seventh Semester (Fall)

CHM 502 ¹ Instrumental Analysis	3 hrs
CHM 503 Instrumental Analysis Lab	1 hr
Chemistry Electives* (choose two)	6 hrs
Course for Minor	3 hrs
CHM 498 Chemistry Careers	3 hrs
Total Hours	16 hrs

Eighth Semester (Spring)

Chemistry Electives*	3 hrs
Course for Minor	3 hrs
Course for Minor	3 hrs
Public Affairs: Public Issues elective	3 hrs
Human Cultures: Soc./Behav. Sciences	3 hrs
CHM 492 Program Assessment	0 hrs
Total Hours	15 hrs

*Chemistry electives: CHM 352, 376, 399 or 499 (2-3 hr), 452, 453, 460 or 461, 462, 509, 552, 553.

GPA Requirements include: 2.0 in major and minor fields (Chemistry and Mathematics).

Other Requirements include: 40 hours must be in upper level courses (300 level or above).

¹Courses offered only in the Fall.

²Courses offered only in the Spring.

³CHM 505 may be substituted for CHM 506, 507 and 508.

Updated, May 2019



B.S. in Chemistry (Non-Comprehensive)

Bachelor of Science Degree Requirements

Department of Chemistry

College of Natural and Applied Sciences

Missouri State
UNIVERSITY

Springfield

Requirements for Non-Comprehensive Chemistry Major (BS)

- General Education Requirements (45 hours)
- Chemistry Requirements (42-43 hours)
- Other Requirements (24 hours)
- Chemistry Electives (8-10 hours)
- Minor required
- Total Hours - 120
- See sample schedule on back
- Undergraduate Catalog - gives more general information and course information for Missouri State University undergraduates

Major Requirements

- General Chemistry - CHM 160, 161, 170 and 171
- Organic Chemistry - CHM 342, 343, 345, and 445
- Analytical Chemistry - CHM 302, 502 and 503
- Inorganic Chemistry - CHM 375
- Physical Chemistry - CHM 504 & 505 or 506, 507 and 508
- Seminar Classes - CHM 398 and 498
- Undergraduate Research or Internship - CHM 397, 399 or 499
- Emphasis Requirements - See next column

Related Requirements

- Mathematics - MTH 261 and 280 or MTH 261 and 288 or MTH 287 and 288
- Physics - PHY 123 and 124 or PHY 203 and 204
- A minor is required



Emphasis Requirements

Basic Option without a specific area of emphasis -

At least eight hours from the following courses:

- CHM 352 (3) - Introduction to Biochemistry
- CHM 376 (2) - Inorganic Preparation
- CHM 399 (1-3) - Undergraduate Research
- CHM 499 (1-3) - Adv. Undergraduate Research
- CHM 460 (3) - Environmental Chemistry I
- CHM 461 (3) - Environmental Chemistry II
- CHM 509 (2) - Physical Chemistry Lab II

For students with a strong interest in
Environmental Chemistry -

- CHM 460 (3) - Environmental Chemistry
- CHM 461 (3) - Environmental Chemistry II
- CHM 462 (2) - Environmental Chemistry Lab

For students with a strong interest in
Biochemistry or Health Careers -

- CHM 554 (3) - Biochemistry I
- CHM 555 (2) - Biochemistry Lab I
- CHM 556 (3) - Biochemistry II

For students with a strong interest in Education -

- Students interested in pursuing certification for high school science teaching should refer to the brochure for "Degree in Chemical Education".



Chemistry Advisors Contact Information:

Basic Option -

Erich Steinle (A-H), Temple 417
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Environmental Option -

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Biochemistry Option -

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Education Option -

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