

Bachelor of Science in Chemistry (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 Anal. Geom./Calc. I	5 hrs
Total Hours	15 hrs

Second Semester (Spring)

CHM 170 Gen. Chem. II	3 hrs
CHM 171 Gen. Chem. II Lab	1 hr
MTH 280 or 288 Anal. Geo./Calc. II	3-5 hrs
COM 115 Fund. in Public Speaking	3 hrs
PLS 101 American Democracy/Citizenship	3 hrs
Natural World: Life Sciences elective	3-4 hrs
Total Hours	16-19 hrs

Third Semester (Fall)

CHM 342 Organic Chem. I	5 hrs
CHM 375 ¹ Inorganic Chem.	3 hrs
PHY 123 or 203 Physics I	3-5 hrs
Human Cultures: Soc./Behav. Sciences	3 hrs
Total Hours	14-16 hrs

Fourth Semester (Spring)

CHM 343 & 345 Organic Chem. II + Lab	3+2 hrs
CHM 302 Intro to Analytical Chem.	5 hrs
PHY 124 or 204 Physics II	4-5 hrs
HST 121 or 122 Survey of History	3 hrs
Total Hours	17-18 hrs

Fifth Semester (Fall)

CHM 398 Chemical Symposium	1 hr
CHM 506 ^{1,3} Physical Chemistry I	3 hrs
CHM 508 ^{1,3} Physical Chemistry I Lab	2 hrs
ENG 210 Writing II	3 hrs
Public Affairs: Cultural Competence elective	3 hrs
Human Cultures: Humanities elective	3 hrs
Total Hours	15 hrs

Sixth Semester (Spring)

CHM 507 ² Physical Chem. II	3 hrs
Chemistry electives*	3-6 hrs
Human Cultures: Social Sciences elective	3 hrs
Human Cultures: The Arts elective	3 hrs
General Education or Electives	3 hrs
Total Hours	15-18 hrs

Seventh Semester (Fall)

CHM 502 ¹ & 503 Instrument Analysis + Lab	3+1hrs
CHM 554 ¹ Biochemistry I	3 hrs
Chemistry Electives*	2-5 hrs
Public Affairs: Public Issues elective	3 hrs
Total Hours	12-15 hrs

Eighth Semester (Spring)

CHM 498	1 hr
CHM 575 ²	3 hrs
Chemistry Electives*	2-6 hrs
General Education or Electives	6 hrs
Total Hours	12-16 hrs

GPA Requirements include: 2.0 in major field.

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.

*Chemistry electives: CHM 376, 397, 399 or 499 (1-3 hr), 509, 514, 542, 555, 556, 557.



B.S. in Chemistry (Comprehensive)

Department of Chemistry and Biochemistry

Bachelor of Science Degree Requirements
College of Natural and Applied Sciences

Requirements for Comprehensive Chemistry Major (BS)

- General Education Requirements (44-49 hours)
- Chemistry Requirements (47 hours)
- Other Requirements (14-20 hours)
- Chemistry Electives (10-22 hours)
- No minor required
- Total Hours - 125
- See sample schedule on back
- Undergraduate Catalog - gives more general information and course information for Missouri State University university graduates

Major Requirements

- General Chemistry - CHM 160, 161, 170 & 171
- Organic Chemistry - CHM 342, 343, 345, & 445
- Analytical Chemistry - CHM 302, 502 & 503
- Inorganic Chemistry - CHM 375 & 575
- Biochemistry - CHM 554
- Physical Chemistry - CHM 506, 507 & 508
- Seminar Classes - CHM 398 & 498
- Independent Project - CHM 397, 399 & 499

Emphasis Requirements

- Graduate School - CHM 376, 499 (1-3 hours), 509. Select one: CHM 514, 542, 552.
- Industrial - CHM 376, 509, 514 or 542, and 4 hours from 397, 399 or 499.
- Biochemistry - CHM 399 or 499, 453, 552, 553, BIO 121, 235, 320.

Related Requirements

- Mathematics - MTH 261 & 280 or MTH 261 & 288 or MTH 287 & 288.
- Physics - PHY 123 & 124 or PHY 203 & 204.



Chemistry Courses

- CHM 160 - General Chemistry I
- CHM 161 - General Chemistry I Lab
- CHM 170 - General Chemistry II
- CHM 171 - General Chemistry II Lab
- CHM 302 - Intro to Anal. Chem.
- CHM 342 - Organic Chemistry I
- CHM 343 - Organic Chemistry II
- CHM 345 - Microscale Organic Chemistry Lab
- CHM 375 - Inorganic Chemistry
- CHM 376 - Inorganic Preparation
- CHM 397 - Cooperative Education in Chemistry
- CHM 398 - Chemical Symposium
- CHM 399 - Undergraduate Investigations
- CHM 445 - Intermediate Organic Chemistry Lab
- CHM 498 - Chemistry Careers
- CHM 499 - Advanced Undergraduate Research
- CHM 502 - Advanced Analytical Methods
- CHM 503 - Instrumental Analysis Lab
- CHM 506 - Physical Chemistry I
- CHM 507 - Physical Chemistry II
- CHM 508 - Beginning Physical Chemistry Lab
- CHM 509 - Physical Chemistry Lab II
- CHM 514 - Polymer Chemistry
- CHM 542 - Advanced Organic Chemistry
- CHM 554 - Biochemistry I
- CHM 555 - Biochemistry Lab I
- CHM 556 - Biochemistry II
- CHM 557 - Advanced Biochemistry Lab
- CHM 575 - Advanced Inorganic Chemistry



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