

## 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 <sup>1</sup> Anal. Geom./Calc. I	5 hrs
<b>Total Hours</b>	<b>15 hrs</b>

### 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
<b>Total Hours</b>	<b>16-19 hrs</b>

### Third Semester (Fall)

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

### Fourth Semester (Spring)

CHM 343 Organic Chem. II	5 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
<b>Total Hours</b>	<b>17-18 hrs</b>

### Fifth Semester (Fall)

CHM 398 Chemical Symposium	1 hr
CHM 506 <sup>1,3</sup> Physical Chemistry I	3 hrs
CHM 508 <sup>1,3</sup> 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
<b>Total Hours</b>	<b>15 hrs</b>

### Sixth Semester (Spring)

CHM 507 <sup>2</sup> 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
<b>Total Hours</b>	<b>15-18 hrs</b>

### Seventh Semester (Fall)

CHM 502 <sup>1</sup>	4 hrs
CHM 452 <sup>1</sup>	3 hrs
Chemistry Electives*	2-5 hrs
Public Affairs: Public Issues elective	3 hrs
<b>Total Hours</b>	<b>12-15 hrs</b>

### Eighth Semester (Spring)

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

GPA Requirements include: 2.0 in major field.

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

<sup>1</sup>Courses offered only in the Fall.

<sup>2</sup>Courses offered only in the Spring.

\*Chemistry electives: CHM 376, 397, 399 or 499 (1-3 hr), 453, 509, 514, 542, 552, 553.



## B.S. in Chemistry (Comprehensive)

Bachelor of Science Degree Requirements

**Department of Chemistry**

College of Natural and Applied Sciences

**Missouri State**  
UNIVERSITY

Springfield

## Requirements for Comprehensive Chemistry Major (BS)

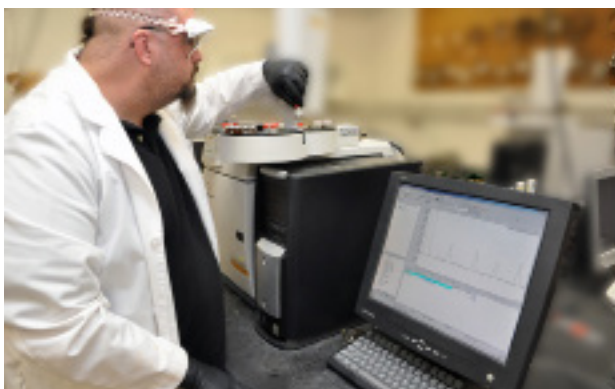
- General Education Requirements (44-49 hours)
- Chemistry Requirements (47 hours)
- Other Requirements (14-20 hours)
- Chemistry Electives (10-22 hours)
- No minor required
- Total Hours - 125
- See sample schedule on back
- Undergraduate Catalog - gives more general information and course information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

## Major Requirements

- General Chemistry - CHM 160, 161, 170 and 171
- Organic Chemistry - CHM 342 and 343
- Analytical Chemistry - CHM 302 and 502
- Inorganic Chemistry - CHM 375 and 575
- Biochemistry - CHM 452
- Physical Chemistry - CHM 506, 507 and 508
- Seminar Classes - CHM 398 and 498
- Independent Project - CHM 397, 399 and 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.

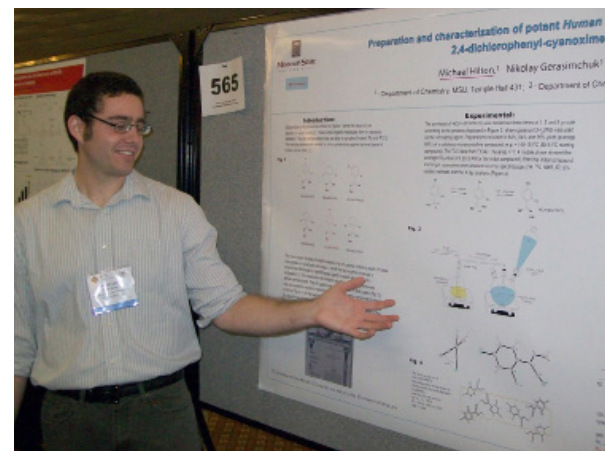


## Related Requirements

- Mathematics - MTH 261 and 280 or MTH 261 and 288 or MTH 287 and 288.
- Physics - PHY 123 and 124 or PHY 203 and 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 375 - Inorganic Chemistry  
CHM 376 - Inorganic Preparation  
CHM 397 - Cooperative Education in Chemistry  
CHM 398 - Chemical Symposium  
CHM 399 - Undergraduate Investigations  
CHM 498 - Chemistry Careers  
CHM 499 - Advanced Undergraduate Research  
CHM 502 - Advanced Analytical Methods  
CHM 452 - Biochemistry I  
CHM 453 - Biochemistry Lab I  
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 552 - Biochemistry II  
CHM 553 - Advanced Biochemistry Lab  
CHM 575 - Advanced Inorganic Chemistry



## Chemistry Advisors Contact Information:

### Graduate School Emphasis -

Dr. Mark Richter  
Temple 477  
417-836-5508  
MarkRichter@missouristate.edu

### Industrial Emphasis -

Dr. Richard Biagioni  
Temple 458  
417-836-4649  
RNBiagioni@missouristate.edu

### Biochemistry Emphasis -

Dr. Dean Cuebas  
Temple 448  
417-836-8567  
DeanCuebas@missouristate.edu

**Missouri State.**  
UNIVERSITY

Department of Chemistry  
901 South National Avenue  
Springfield, Missouri 65897  
417-836-5506  
Chemistry@missouristate.edu  
www.chemistry.missouristate.edu