

# B.S. in Chemistry

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## Degree Requirements

The academic regulations for this degree program, as entered in the University of Mississippi Catalog, are in effect for the current or selected academic year and semester. The University of Mississippi reserves the right to 1) change or withdraw courses; 2) change rules for registration, instruction, and graduation; and 3) change other regulations affecting the student body at any time.

## B.S. in Chemistry

### General Education

| REQUIREMENT                        | HOURS | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------------------------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| First Year Writing I               | 3     | Complete <a href="#">Hon 101</a> , <a href="#">Writ 100</a> or <a href="#">Writ 101</a> with a passing grade.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| First Year Writing II              | 3     | Complete one of the following courses with a passing grade: <a href="#">Liba 102</a> , <a href="#">Writ 102</a> or <a href="#">Hon 102</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 6 hrs literature survey            | 6     | Complete 6 hours of literature survey with a passing grade. Choose from the following courses: <a href="#">Eng 220</a> , <a href="#">221</a> , <a href="#">222</a> , <a href="#">223</a> , <a href="#">224</a> , <a href="#">225</a> , or <a href="#">Eng 226</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 3 hrs fine arts                    | 3     | The course may be chosen from art history, music, dance, and theatre arts. Studio and workshop courses cannot be used to satisfy this requirement. Courses that satisfy this requirement are any Art History (AH); <a href="#">Liba 130</a> , <a href="#">204</a> , <a href="#">314</a> ; <a href="#">Mus 101</a> , <a href="#">102</a> , <a href="#">103</a> , <a href="#">104</a> , <a href="#">105</a> ; <a href="#">Danc 200</a> ; <a href="#">Thea 201</a> , <a href="#">202</a> . Students who have completed 30 semester hours of undergraduate course work may fulfill the requirement with a 300- or 400-level art history course.                                                                                            |
| 6 hrs science                      | 6     | Successfully complete 2 courses of laboratory science.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 2 science labs                     | 8     | Successfully complete at least two science laboratory courses.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 12 hrs Social Science & Humanities | 12    | The courses may be chosen from African American studies, American Sign Language, anthropology, classical civilization, economics, <a href="#">Envs 101</a> , gender studies, Greek, history, Latin, <a href="#">Liba 202</a> , <a href="#">312</a> , linguistics, any of the languages offered by the Department of Modern Languages, philosophy, political science, psychology, religious studies, sociology, and Southern studies; any 3-credit Spch, Rhet, or Writ at the 200-level or higher. <a href="#">Rhet 201</a> . At least 6 hours must be chosen from among the social sciences, which consists of anthropology, economics, <a href="#">Liba 203</a> , <a href="#">313</a> , political science, psychology, and sociology. |

### General Education II

| REQUIREMENT                    | HOURS | DESCRIPTION                                                                                             |
|--------------------------------|-------|---------------------------------------------------------------------------------------------------------|
| Related subjects residence     | 6     | Students must complete at least 6 of the required 18 hours of related subject course work in residence. |
| Related subjects residence GPA |       | Student must achieve a GPA of 2.00 in resident hours in related subjects.                               |
| Related subjects               | 18    | Complete at least 18 credit hours in the following areas: math or physics.                              |
| Related subject GPA            |       | Student must achieve a GPA of 2.00 overall in the related subjects.                                     |

### Major Requirements

| REQUIREMENT                                      | HOURS | DESCRIPTION                                                                                                                  |
|--------------------------------------------------|-------|------------------------------------------------------------------------------------------------------------------------------|
| <a href="#">Chem 105</a> and <a href="#">115</a> | 3     | <a href="#">Chem 105: General Chemistry I</a>                                                                                |
| <a href="#">Chem 106</a> and <a href="#">116</a> | 3     | <a href="#">Chem 106: General Chemistry II</a>                                                                               |
| <a href="#">Chem 105</a> and <a href="#">115</a> | 1     | <a href="#">Chem 115: General Chemistry Laboratory I</a>                                                                     |
| <a href="#">Chem 106</a> and <a href="#">116</a> | 1     | <a href="#">Chem 116: General Chemistry Laboratory II</a>                                                                    |
| <a href="#">Chem 221</a> and <a href="#">225</a> | 4     | <a href="#">Chem 221: Elementary Organic Chemistry I</a> , <a href="#">Chem 225: Elementary Organic Chem. Laboratory I</a>   |
| <a href="#">Chem 222</a> and <a href="#">226</a> | 4     | <a href="#">Chem 222: Elementary Organic Chemistry II</a> , <a href="#">Chem 226: Elementary Organic Chem. Laboratory II</a> |
| <a href="#">Chem 314</a>                         | 4     | <a href="#">Chem 314: Quantitative Analysis</a>                                                                              |
| <a href="#">Chem 331</a> and <a href="#">337</a> | 3     | <a href="#">Chem 331: Physical Chemistry I</a>                                                                               |
| <a href="#">Chem 332</a>                         | 3     | <a href="#">Chem 332: Physical Chemistry II</a>                                                                              |
| <a href="#">Chem 331</a> and <a href="#">337</a> | 1     | <a href="#">Chem 337: Physical Chemistry Laboratory I</a>                                                                    |
| <a href="#">Chem 401</a> and <a href="#">402</a> | 4     | <a href="#">Chem 401: Inorganic Chemistry</a> , <a href="#">Chem 402: Inorganic Chemistry Laboratory</a>                     |
| <a href="#">Chem 463</a> (two semesters)         | 4     | <a href="#">Chem 463: Senior Research and Discovery</a>                                                                      |

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| REQUIREMENT              | HOURS | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <a href="#">Chem 469</a> | 4     | <a href="#">Chem 469: Introduction to Instrumental Analysis</a>                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <a href="#">Chem 471</a> | 3     | <a href="#">Chem 471: Biochemistry I</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Enroll in an emphasis    |       | Enroll in either the standard option or the optional biochemistry emphasis.                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Chemistry residency hrs  | 18    | Students must earn at least 18 hours of their major courses in residence. The following courses may not be used for major or minor credit: <a href="#">Chem 101</a> , <a href="#">Chem 102</a> , <a href="#">Chem 103</a> , <a href="#">Chem 104</a> , <a href="#">Chem 113</a> , <a href="#">Chem 114</a> , <a href="#">Chem 121</a> , <a href="#">Chem 201</a> , <a href="#">Chem 202</a> , <a href="#">Chem 271</a> , <a href="#">Chem 381</a> , <a href="#">Chem 382</a> , or <a href="#">Chem 383</a> . |
| Overall Major GPA        |       | Please contact your academic advisor for grade point requirements.                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Resident Major GPA       |       | Please contact your academic advisor for grade point requirements.                                                                                                                                                                                                                                                                                                                                                                                                                                           |

### Major Requirements II

| REQUIREMENT                                                             | HOURS | DESCRIPTION                                                                                  |
|-------------------------------------------------------------------------|-------|----------------------------------------------------------------------------------------------|
| <a href="#">Math 261</a>                                                | 3     | Complete <a href="#">Math 261</a> with a passing grade.                                      |
| <a href="#">Math 262</a>                                                | 3     | Complete <a href="#">Math 262</a> with a passing grade.                                      |
| <a href="#">Math 263</a>                                                | 3     | Complete <a href="#">Math 263</a> with a passing grade.                                      |
| <a href="#">Math 264</a>                                                | 3     | Complete <a href="#">Math 264</a> with a passing grade.                                      |
| <a href="#">Math 353</a> , <a href="#">319</a> , or <a href="#">375</a> | 3     | Complete <a href="#">Math 353</a> , <a href="#">Math 319</a> , or <a href="#">Math 375</a> . |
| <a href="#">Phys 211</a>                                                | 3     | Complete <a href="#">Phys 211</a> with a passing grade.                                      |
| <a href="#">Phys 212</a>                                                | 3     | Complete <a href="#">Phys 212</a> with a passing grade.                                      |
| <a href="#">Phys 221</a>                                                | 1     | Complete <a href="#">Phys 221</a> with a passing grade.                                      |
| <a href="#">Phys 222</a>                                                | 1     | Complete <a href="#">Phys 222</a> with a passing grade.                                      |

### Emphasis - Biochemistry

| REQUIREMENT              | HOURS | DESCRIPTION                                                                                                                                                        |
|--------------------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <a href="#">Chem 472</a> | 1     | Complete <a href="#">Chem 472</a> with a passing grade.                                                                                                            |
| <a href="#">Chem 473</a> | 3     | Complete <a href="#">Chem 473</a> with a passing grade.                                                                                                            |
| 1 advanced course        | 3     | Complete an advanced chemistry course chosen from the following: <a href="#">Chem 580</a> , <a href="#">581</a> , <a href="#">Bisc 333</a> , <a href="#">336</a> . |

### Standard Option

| REQUIREMENT                  | HOURS | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <a href="#">Chem 423</a>     | 2     | Complete <a href="#">Chem 423</a> with a passing grade.                                                                                                                                                                                                                                                                                                                                                            |
| 2 advanced chemistry courses | 6     | Complete 2 advanced chemistry courses chosen from the following: <a href="#">CHEM 473</a> , <a href="#">512</a> , <a href="#">514</a> , <a href="#">519</a> , <a href="#">527</a> , <a href="#">528</a> , <a href="#">529</a> , <a href="#">530</a> , <a href="#">531</a> , <a href="#">532</a> , <a href="#">534</a> , <a href="#">536</a> , <a href="#">544</a> , <a href="#">563</a> , or <a href="#">593</a> . |

### Emphasis - Chemical Physics

| REQUIREMENT                  | HOURS | DESCRIPTION                                                                                                                                                                                                                                                                                                             |
|------------------------------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2 advanced chemistry courses | 6     | Complete 2 advanced chemistry courses chosen from the following: <a href="#">Chem 531</a> , <a href="#">532</a> , <a href="#">536</a> , <a href="#">544</a> or <a href="#">Chem 563</a> .                                                                                                                               |
| 1 advanced course            | 3     | Complete 1 advanced course chosen from the following: <a href="#">Phys 303</a> , <a href="#">308</a> , <a href="#">315</a> , <a href="#">317</a> , <a href="#">319</a> , <a href="#">321</a> , <a href="#">401</a> , <a href="#">422</a> , <a href="#">Chem 593</a> , <a href="#">Astr 325</a> or <a href="#">340</a> . |

### Emphasis - Environmental Chemistry

| REQUIREMENT              | HOURS | DESCRIPTION                                                                                                                                                                                                                                   |
|--------------------------|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <a href="#">Chem 512</a> | 3     | Successfully complete <a href="#">Chem 512</a> .                                                                                                                                                                                              |
| 1 advanced course        | 4     | Complete 1 advanced course chosen from the following: <a href="#">Chem 554</a> , <a href="#">Chem 593</a> , <a href="#">Bisc 322</a> , <a href="#">451</a> , <a href="#">Engr 540</a> , <a href="#">G E 503</a> or <a href="#">Phcl 347</a> . |

