

Chemistry (B.S.) – Biochemistry & Molecular Biology Emphasis – Study Abroad

2023-2024 Academic Catalog, Bachelor of Science – Chemistry, Biochemistry and Molecular Biology Emphasis, Global Emphasis: Study Abroad

Academic Core for B.S. 50 Hours

CHRISTIAN STUDIES 6

| | | |
|-----------|----------------------------|---|
| CSBS 1311 | Engaging the Old Testament | 3 |
| CSBS 1312 | Engaging the New Testament | 3 |

ENGLISH 9

| | | |
|-----------|---------------------------|---|
| ENGL 1321 | Rhetoric & Composition I | 3 |
| ENGL 1322 | Rhetoric & Composition II | 3 |
| ENGL | Literature | 3 |

A grade of a "C" or higher is required in ENGL 1321 and ENGL 1322.

EXERCISE & SPORT SCIENCE – SELECT TWO DIFFERENT COURSES 2

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|------|-----------------|---|
| EXAC | Activity Course | 1 |
| EXAC | Activity Course | 1 |

FINE ARTS – SELECT ONE 3

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|-----------|-----------------------------|---|
| ARTS 1350 | Art Appreciation | 3 |
| COMM 2335 | Film Appreciation | 3 |
| FINA 2330 | Exploring the Fine Arts | 3 |
| MUSI 1340 | Music Appreciation | 3 |
| THEA 2350 | Introduction to the Theatre | 3 |

WORLD CULTURES – SELECT ONE 3

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| ARTS 2354 | World Art | 3 |
| EXSS 2353 | Lifespan Nutrition | 3 |
| GLBL 2310 | Cultural Immersion | 3 |
| HIST 1311 | History of World Civilizations to 1500 | 3 |
| HIST 1312 | History of World Civilizations since 1500 | 3 |
| MUSI 2358 | World Music | 3 |
| PHIL 2315 | Introduction to Philosophy | 3 |

LAB SCIENCE 8

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|-----------|--------------------|---|
| PHYS 2411 | General Physics I | 4 |
| PHYS 2412 | General Physics II | 4 |

PUBLIC SPEAKING 3

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|-----------|-----------------|---|
| COMM 1320 | Public Speaking | 3 |
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MATHEMATICS 4

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|-----------|------------|---|
| MATH 1430 | Calculus I | 4 |
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RESEARCH METHODS OR INTERNSHIP 2

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|-----------|--|---|
| CHEM 2181 | Introduction to Chemical Research-Capstone I | 1 |
| CHEM 4181 | Chemical Research-Capstone II | 1 |

SOCIAL SCIENCE – SELECT ONE 3

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| BECO 2310 | Principles of Economics | 3 |
| PSYC 1301 | General Psychology | 3 |
| PSYC 2399 | Child and Adolescent Development | 3 |
| SOCI 1311 | Introduction to Sociology | 3 |
| SOCW 2311 | Introduction to Social Work | 3 |

US HISTORY OR US GOVERNMENT – SELECT ONE 3

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|-----------|----------------------------------|---|
| HIST 2311 | American History to 1877 | 3 |
| HIST 2312 | American History since 1877 | 3 |
| POLS 2305 | United States Government | 3 |
| POLS 2306 | Texas State and Local Government | 3 |

FRESHMAN SEMINAR 1

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|-----------|------------------|---|
| UMHB 1101 | Freshman Seminar | 1 |
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GLOBAL EMPHASIS – STUDY ABROAD 3

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|--|--------------|---|
| | Study Abroad | 3 |
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CHAPEL – 1 to 4 credits

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| UMHB 1002 | Chapel | |
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Fine Arts Experience – 2 to 8 credits

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| UMHB 1005 | Fine Arts Experience | |
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Chemistry 57 Hours

B.S. CHEMISTRY MAJOR REQUIRED COURSES – BIOCHEMISTRY 35

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|-----------|--|-----|
| CHEM 1410 | General Chemistry I | 4 |
| CHEM 1420 | General Chemistry II | 4 |
| CHEM 2181 | Introduction to Chemical Research-Capstone I | - |
| CHEM 3400 | Quantitative Analysis | 4 |
| CHEM 3410 | Organic Chemistry I | 4 |
| CHEM 3420 | Organic Chemistry II | 4 |
| CHEM 3440 | Physical Chemistry I | 4 |
| CHEM 4090 | Senior Evaluation | 0 |
| CHEM 4181 | Chemical Research-Capstone II | - |
| CHEM 4183 | Seminar - Capstone III | 1 |
| CHEM 4345 | Advanced Biochemistry | 3 |
| CHEM 4430 | Biochemistry | 4 |
| CHEM | Chemistry Upper Level Electives | 3-4 |

The hrs. for CHEM2181 and CHEM4181 are already accounted for in the Academic Core

REQUIRED COURSES FOR BIOCHEM & MOL BIO EMPHASIS 22

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|-----------|-----------------------------------|---|
| BIOL 1350 | Biology for Science Majors I | 3 |
| BIOL 1150 | Biology for Science Majors I Lab | 1 |
| BIOL 1360 | Biology for Science Majors II | 3 |
| BIOL 1160 | Biology for Science Majors II Lab | 1 |
| BIOL 2380 | Microbiology | 3 |
| BIOL 2180 | Microbiology Lab | 1 |
| BIOL 3310 | Genetics | 3 |
| BIOL 3340 | Immunology | 3 |
| BIOL 4305 | Cell Biology | 3 |
| BIOL 4105 | Cell Biology Lab | 1 |

A grade of "C" or higher is required in all Chemistry courses counting toward the major

Electives 13 Hours

ELECTIVES 13

You need 13 additional hours to reach your minimum 120 required hrs.

Total Hours

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| Academic Core for B.S. | 47 |
| Global Emphasis – Study Abroad | 3 |
| B.S. Chemistry Major Required Courses | 35 |
| Required Courses for Biochemistry & Molecular Biology Emphasis | 22 |
| Electives | 13 |
| Total hours required for graduation | 120 |

Additional Graduation Requirements

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| Minimum Upper Level hours | 36 |
| Minimum hours taken at UMHB | 30 |
| Minimum Upper Level hours taken at UMHB | 24 |
| Minimum cumulative GPA | 2.0 |