



Undergraduate Degree Map for Completion in Four Years

| | |
|--------------------------------------|---|
| College: | College of Science, Engineering & Technology <input type="button" value="v"/> |
| Department: | Chemistry & Geology <input type="button" value="v"/> |
| Name of Program: | BIOCHEMISTRY <input type="button" value="v"/> |
| Degree Designation: | BA <input type="button" value="v"/> |
| Emphasis/Concentration: | <input type="text"/> <input type="button" value="v"/> |
| Option: | <input type="text"/> |
| Version: | 1 <input type="button" value="v"/> |
| Version Explanation: | <input type="text"/> |
| Type of Program: | Broad Major <input type="button" value="v"/> |
| Minor Required: | No <input type="button" value="v"/> |
| Specific Minor (if required): | <input type="text"/> |

Program Description:

Biochemistry is a discipline which encompasses both biology and chemistry. This rapidly expanding science focuses on the study of the molecular aspects of living organisms. The tools and concepts of biochemistry are important as a foundation for careers in many areas of research and in medicine. Students considering a BA or BS degree in biochemistry should consult a biochemistry advisor for specific information regarding the program. This major is appropriate for students in pre-professional programs such as pre-dental, pre-medical, and pre-pharmacy programs.

Admission Requirements:

Admission to a program is necessary before a student can enroll in 300- and 400-level courses. To be eligible for admission to the biochemistry program a student must have declared biochemistry as a first major, completed 32 credits, including BIOL 105 and BIOL 106 as well as CHEM 201 and CHEM 202 and achieved a minimum grade point average of 2.0. Students should also have an assigned biochemistry advisor with whom they have discussed the program. Applications for admission to the biochemistry program are available in the department office.

Advising:

You are expected to meet with your advisor on a regular basis to ensure courses are taken in an order that will lead to successful completion of the degree.

College of Science, Engineering & Technology Advising Center
 Ken Adams, Student Relations Coordinator
 Trafton C-125
 507-389-1521

A complete listing of program faculty, policies, and course descriptions is available in the undergraduate bulletin.

TERM 1 - FALL

| <i>Designator:</i> | <i>Course:</i> | <i>Course Name:</i> | <i>Credits:</i> | <i>Milestones:</i> |
|--------------------|----------------|--------------------------|-----------------|---|
| | | | | Overall GPA \geq 2.0 Course Completion Rate \geq 67% Completion of \geq 15 credit hours |
| CHEM | 201 | GENERAL CHEMISTRY I | 5 | C OR BETTER |
| ENG | 101 | COMPOSITION | 4 | |
| MATH | 121 | CALCULUS I | 4 | C OR BETTER |
| | | GENERAL EDUCATION COURSE | 3 | OVERALL GPA IN REQUIRED COURSES \geq 2.2 |

Term 1 Notes:

TERM 2 - SPRING

| <i>Designator:</i> | <i>Course:</i> | <i>Course Name:</i> | <i>Credits:</i> | <i>Milestones:</i> |
|--------------------|----------------|--------------------------|-----------------|--|
| | | | | Overall GPA \geq 2.0 Course Completion Rate \geq 67% Completion of \geq 30 credit hours Advance to Sophomore status |
| CHEM | 202 | GENERAL CHEMISTRY II | 5 | C OR BETTER |
| BIOL | 105 | GENERAL BIOLOGY I | 4 | OVERALL GPA IN REQUIRED COURSES \geq 2.2 |
| | | GENERAL EDUCATION COURSE | 2-4 | |
| | | GENERAL EDUCATION COURSE | 2-4 | |
| | | GENERAL EDUCATION COURSE | 2-4 | |

Term 2 Notes:

TERM 3 - FALL

| <i>Designator:</i> | <i>Course:</i> | <i>Course Name:</i> | <i>Credits:</i> | <i>Milestones:</i> |
|--------------------|----------------|--------------------------|-----------------|---|
| | | | | Overall GPA \geq 2.0 Course Completion Rate \geq 67% |
| CHEM | 305 | ANALYTICAL CHEMISTRY | 4 | OVERALL GPA IN REQUIRED COURSES \geq 2.2 |
| CHEM | 322 | ORGANIC CHEMISTRY I | 4 | C OR BETTER |
| BIOL | 106 | GENERAL BIOLOGY II | 4 | C OR BETTER |
| | | GENERAL EDUCATION COURSE | 3 | APPLY FOR ADMISSION TO COLLEGE |

Term 3 Notes:

TERM 4 - SPRING

| <i>Designator:</i> | <i>Course:</i> | <i>Course Name:</i> | <i>Credits:</i> | <i>Milestones:</i> |
|--------------------|----------------|--|-----------------|---|
| | | | | Overall GPA \geq 2.0 Course Completion Rate \geq 67% Completion of \geq 60 credit hours Advance to Junior status |
| CHEM | 324 | ORGANIC CHEMISTRY II | 3 | C OR BETTER |
| CHEM | 325 | ORGANIC CHEMISTRY II LABORATORY | 1 | C OR BETTER |
| CHEM | 340 | QUANTITATIVE SKILLS FOR CHEMISTRY AND BIOCHEMISTRY | 1 | C OR BETTER |
| BIOL | 211 | GENETICS | 4 | OVERALL GPA IN REQUIRED COURSES \geq 2.2 |
| | | GENERAL EDUCATION COURSE | 3 | |
| | | GENERAL ELECTIVE COURSE | 1-4 | |
| | | GENERAL ELECTIVE COURSE | 1-4 | |
| | | GENERAL ELECTIVE COURSE | 1-4 | |
| | | GENERAL ELECTIVE COURSE | 1-4 | |

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Term 4 Notes:

GENERAL ELECTIVE COURSES MINIMUM CREDITS 4

TERM 5 - FALL

| <i>Designator:</i> | <i>Course:</i> | <i>Course Name:</i> | <i>Credits:</i> | <i>Milestones:</i> |
|--------------------|----------------|--------------------------|-----------------|---|
| | | | | Overall GPA \geq 2.0 Course Completion Rate \geq 67% Apply for Graduation |
| CHEM | 460 | BIOCHEMISTRY I | 3 | OVERALL GPA IN REQUIRED COURSES \geq 2.2 |
| CHEM | 465 | BIOCHEMICAL TECHNIQUES I | 1 | |
| CHEM | 474 | CHROMATOGRAPHY | 2 | |
| BIOL | 270 | MICROBIOLOGY | 4 | |
| | | GENERAL EDUCATION COURSE | 2-4 | |
| | | GENERAL EDUCATION COURSE | 2-4 | |
| | | GENERAL EDUCATION COURSE | 2-4 | |

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Term 5 Notes:

MINIMUM GENERAL EDUCATION COURSES CREDITS 5. AT LEAST ONE COURSE SHOULD BE WRITING INTENSIVE

TERM 6 - SPRING

| <i>Designator:</i> | <i>Course:</i> | <i>Course Name:</i> | <i>Credits:</i> | <i>Milestones:</i> |
|--------------------|----------------|---------------------|-----------------|---|
| | | | | Overall GPA \geq 2.0 Course Completion Rate \geq 67% Completion of \geq 90 credit hours Advance to Senior status |
| CHEM | 461 | BIOCHEMISTRY II | 3 | |

| <i>Designator:</i> | <i>Course:</i> | <i>Course Name:</i> | <i>Credits:</i> | <i>Milestones:</i> |
|--------------------|----------------|---------------------------|-----------------|---|
| | | | | Overall GPA \geq 2.0 Course Completion Rate \geq 67% Completion of \geq 90 credit hours Advance to Senior status |
| | | | | OVERALL GPA IN REQUIRED COURSES \geq 2.2 |
| CHEM | 466W | BIOCHEMICAL TECHNIQUES II | 2 | |
| | | LANGUAGE COURSE | 4 | |
| | | GENERAL EDUCATION COURSE | 3 | |
| | | GENERAL ELECTIVE COURSE | 3 | |

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Term 6 Notes:

TERM 7 - FALL

| <i>Designator:</i> | <i>Course:</i> | <i>Course Name:</i> | <i>Credits:</i> | <i>Milestones:</i> |
|--------------------|----------------|--------------------------------------|-----------------|---|
| | | | | Overall GPA \geq 2.0 Course Completion Rate \geq 67% |
| | | LANGUAGE COURSE | 4 | |
| | | GENERAL EDUCATION COURSE | 2-4 | |
| | | GENERAL EDUCATION COURSE | 2-4 | |
| | | UPPER-DIVISION ELECTIVE BIOL OR CHEM | 2 | |
| | | UPPER-DIVISION COURSE | 2 | OVERALL GPA IN REQUIRED COURSE \geq 2.2 |

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Term 7 Notes:

TERM 8 - SPRING

| <i>Designator:</i> | <i>Course:</i> | <i>Course Name:</i> | <i>Credits:</i> | <i>Milestones:</i> |
|--------------------|----------------|---|-----------------|---|
| | | | | Overall GPA \geq 2.0 Course Completion Rate \geq 67% |
| CHEM | 494 OR 495 | BIOCHEMISTRY CAPSTONE EXPERIENCE OR SENIOR SEMINAR | 1 | OVERALL GPA IN REQUIRED COURSES \geq 2.2 |
| BIOL | 479 | MOLECULAR BIOLOGY | 4 | |
| | | UPPER -DIVISION ELECTIVE BIOL OR CHEM | 3-4 | |
| | | UPPER- DIVISION ELECTIVE BIOL OR CHEM | 3-4 | |

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Term 8 Notes:

PROGRAM NOTES

1. ELECTIVES TAKEN IN TERMS 6, 7, AND 8 MUST BE APPROVED BY A BIOCHEMISTRY FACULTY MEMBER IF THE COURSES ARE TO BE USED TOWARD THE BIOCHEMISTRY BA.
2. APPLY FOR ADMISSION TO THE COLLEGE AFTER THREE SEMESTERS.
3. ELECTIVES MUST BE SELECTED TO MEET THE UPPER-DIVISION 40 CREDIT MINIMUM. HAVE YOUR ADVISER APPROVE YOUR ELECTIVES.
4. TO USE THIS MAP, STUDENTS MUST HAVE A CURRENT ACT MATH SUBSCORE OF 24, OR A MINIMUM ACCUPLACER COLLEGE LEVEL MATH SCORE 103 OR A MINIMUM ACCUPLACER CALCULUS READINESS SCORE OF 22 OR A MINIMUM SCORE OF C OR BETTER IN

DEGREE MAP CHECKLIST: GRADUATION REQUIREMENTS

| | |
|--------------------------|---|
| <input type="checkbox"/> | 1. Minimum of 15 credits per semester |
| <input type="checkbox"/> | 2. General Education = 44 credits |
| <input type="checkbox"/> | 3. Diverse Cultures = 2 course (6 credits minimum) from two disciplines |
| <input type="checkbox"/> | 4. Writing Intensive = 2 courses (6 credits minimum) |
| <input type="checkbox"/> | 5. Major = <input type="text"/> credits |
| <input type="checkbox"/> | 6. Upper-Division Requirements = 40 credits minimum |
| <input type="checkbox"/> | 7. Professional Education (if required) = 30 credits |
| <input type="checkbox"/> | 8. Language Requirements (if BA) = 8 credits minimum |
| <input type="checkbox"/> | 9. Minor = <input type="text"/> credits |
| <input type="checkbox"/> | 10. Total credits required for degree <input type="text"/> |

DEGREE MAP COMPLETE

| | |
|-------------------------------------|--|
| <input checked="" type="checkbox"/> | <p>Map is complete and ready for review</p> <ol style="list-style-type: none"> 1. Faculty please send an email to your Department Chair when map is ready to review. 2. Department Chair please send an email to your Dean when map is ready to review. 3. Dean please send an email to the Assistant Vice President for Undergraduate Studies when map is ready to review. |
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DEAN APPROVAL

| | |
|-------------------------------------|-----------------------------------|
| <input checked="" type="checkbox"/> | Map reviewed and approved by Dean |
|-------------------------------------|-----------------------------------|

Save and Close