

Biological Sciences (Molecular Biology) (BS)
Degree Plan (BSCMBBS) (BSCMBGCBS)
SUGGESTED COURSE SEQUENCE GUIDELINES

- These are suggested course sequence guidelines. Students must consult the USM Undergraduate Bulletin and their academic advisor.
- First and Second Year courses are listed as Junior/Community Colleges courses with equivalent USM courses in brackets.
- During the last semester of the Sophomore year, students should develop a more detailed plan for the Junior and Senior years because many upper level BSC courses are offered in specific semesters (Fall or Spring only) and/or on a rotating two year cycle.
- Some courses may require additional prerequisites.

| COMMUNITY COLLEGE / JUNIOR COLLEGE (62 hours) | | | |
|---|-----------|--|-----------|
| FRESHMAN | | SOPHOMORE | |
| 1st Semester | | 1st Semester | |
| BIO 1134 - General Biology I [BSC 110/L] | 4 | CHE 2425 - Organic Chemistry I [CHE 255/L] | 4 |
| CHE 1214 - General Chemistry I [CHE 106/L] | 4 | PHY 2414 - General Physics [PHY 111/L] | 4 |
| MAT 1613* - Calculus I [MAT 167] | 3 | ENG 2423 - World Literature [ENG 203] | 3 |
| ENG 1113 - English Composition I [ENG 101] | 3 | SPT 1113 - Oral Communication [SCM 111] | 3 |
| HIS 1163 - World Civilization I [HIS 101] <i>or</i> | 3 | Select one <i>Aesthetic Values</i> course: | 3 |
| HIS 2213 - American History I [HIS 201] | | ART 1113 [ART 130] <i>or</i> MUS 1113 [MUS 365] <i>or</i> | |
| 2nd Semester | | 2nd Semester | |
| BIO 1144 - General Biology II [BSC 111/L] | 4 | CHE 2435 - Organic Chemistry II [CHE 256/L] | 4 |
| CHE 1224 - General Chemistry II [CHE 107/L] | 4 | PHY 2424 - General Physics [PHY 112/L] | 4 |
| ENG 1123 - English Composition II [ENG 102] | 3 | Select one <i>Social Sciences</i> course: | 3 |
| HIS 1173 - World Civilization II [HIS 102] <i>or</i> | 3 | SOC 2231 [ANT 101] <i>or</i> GEO 1113 [GHY 101] <i>or</i> | |
| HIS 2223 - American History II [HIS 202] | | SOC 2113 [SOC 101] | |
| | | Select one <i>Decision-Making and Responsibility</i> course: | 3 |
| | | PSC 1113 [PS 101] <i>or</i> PSY 1513 [PSY 110] <i>or</i> | |
| | | ECO 2113 [ECO 101] | |
| TOTAL | 31 | TOTAL | 31 |
| <p>*Calculus is required for this major. Students may enroll in Calculus if the ACT mathematics subtest score is ≥ 26; otherwise, they must take prerequisite courses, typically College Algebra and/or Trigonometry. Entering freshmen with an ACT mathematics subtest score of ≤ 16 must take Intermediate Algebra during the first semester. Students with an ACT mathematics subtest score of 17-19 are strongly encouraged to take Intermediate Algebra before taking College Algebra. Students may take Trigonometry if the ACT mathematics subtest score is ≥ 24 or if they have a grade of C or better in College Algebra.</p> | | | |

| UNIVERSITY OF SOUTHERN MISSISSIPPI (62 hours) | | | |
|---|-----------|---|-----------|
| JUNIOR YEAR | | SENIOR YEAR | |
| BSC 380/L - Microbiology | 4 | BSC 476 - Molecular Biology | 3 |
| BSC 370 - Genetics | 4 | BSC 478L - Molecular Biology Lab | 3 |
| CHE 421/L - Biochemistry | 5 | BSC 477/L - Microbial Genetics | 4 |
| CHE 423 - Analytical Biochemistry | 3 | BSC 487/L - Microbial Physiology | 4 |
| Select 9 hours of 300 or 400 level courses from BSC or CHE: 9 | | Select 8 hours of 300 or 400 level courses from BSC or CHE: 8 | |
| Recommended courses include those listed above and | | Recommended courses include those listed above and: | |
| BSC 360 <i>or</i> BSC 457 <i>or</i> BSC 469 <i>or</i> BSC 471/L <i>or</i> | | BSC 360 <i>or</i> BSC 457 <i>or</i> BSC 469 <i>or</i> BSC 471/L <i>or</i> | |
| BSC 479/L <i>or</i> BSC 484/L <i>or</i> BSC 486/L <i>or</i> CHE 311/L <i>or</i> | | BSC 479/L <i>or</i> BSC 484/L <i>or</i> BSC 486/L <i>or</i> CHE 311/L <i>or</i> | |
| CHE 416/L <i>or</i> CHE 462/L | | CHE 416/L <i>or</i> CHE 462/L | |
| Select one <i>Computer Competency</i> course: | 3 | BSC 497 - Senior Capstone | 1 |
| PSY 360 <i>or</i> CSS 211 <i>or</i> CSS 240 <i>or</i> CSS 330 <i>or</i> CSS 333 | | Select one <i>Upper Level Writing Intensive</i> course: | 3 |
| | | ENG 333 <i>or</i> other approved WI course | |
| Choose Electives, Minor courses, or other courses as needed to fulfill the hours to degree. | | Choose Electives, Minor courses, or other courses as needed to fulfill the hours to degree. | |
| TOTAL | 31 | TOTAL | 31 |