**Requirements for the Bachelor of Science in Microbiology – University of Alabama – 2020-2021 catalog**

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| **Required courses** (18 hours)   * BSC 114/115 or 118 – Principles Of Biology I/Laboratory Biology I or Honors General Biology I * BSC 116/117 or 120 – Principles Biology II/Biology II Laboratory or Honors General Biology II * BSC 300 – Cell Biology * BSC 310 – Microbiology * BSC 311 – Microbiology II * BSC 312 – Microbiology Lab | **Elective courses** (19 hours), to be chosen from the following:   * BSC 313 – Gen Bacteriology Lab * BSC 380 – Introductory Statistics for Biologists * BSC 390 – Honors Thesis Research * BSC 391 – Tutorial in Biological Science * BSC 393 – Biology Outreach * BSC 396 – Resident Study * BSC 398 – Undergraduate Research * BSC 399 – Presentation of Undergraduate Research * BSC 403 – Intro to BSC Instruction * BSC 404 – Honors Intro to BSC Instruction * BSC 409/410 – Pre-Health Apprenticeship * BSC 411 – Phage Discovery * BSC 426 – Computational Biology Lab * BSC 431 – Pathogenic Microbiology * BSC 435 – Immunology * BSC 439 – Molecular Biology Lab * BSC 442 – Integrated Genomics * BSC 444 – General Virology * BSC 450 – Fundamentals of Biochemistry * BSC 451 – Molecular Biology * BSC 456 – Microbial Ecology * BSC 464 – Biology Of Algae * BSC 472 – Mycology * BSC 473 – Bioinformatics * BSC 481 – Foundations in Advanced Biostatistics with Applications to R * BSC 483 – Evolution * BSC 488 – Research Seminars in Biology * BSC 496 – Bioremediation * BSC 497 – Special Topics (e.g., Biochemistry Lab, Microbiome in Disease & Health, Disease Ecology, Programming with R)   The elective courses must include two laboratory courses. The lab course requirement may not be fulfilled with both BSC 390 and 398. | **Required ancillary science and mathematics courses**   * CH 101 or 117 – General Chemistry or Honors General Chemistry * CH 102 or 118 – General Chemistry or Honors General Chemistry * CH 231 – Elem Organic Chemistry I * CH 232 – Elem Organic Chemistry II * CH 237 – Elem Organic Chemistry Lab * MATH 125 or 145 – Calculus I or Honors Calculus I * PH 101, 105 or 125 – General Physics I or General Physics w/Calculus I or Honors General Physics w/Calculus * PH 102, 106 or 126 – General Physics II or General Physics w/Calculus II or Honors General Physics w/Calculus |