**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
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