Mississippi State University
Biological Sciences Degree (B.S.) Requirements- 124 Hours

(Must earn a “C” or higher in all Biology Courses)
Revised 06/2018

Biology Core Requirements:
- Biology 1 w/ lab- BIO 1134
- Biology 2 w/ lab- BIO 1144
- Cell Biology- BIO 2103
- Plant Biology w/ lab- BIO 2113
- Animal Diversity- BIO 2513
- Ecology w/ lab- BIO 3104
- General Microbiology w/ lab- BIO 3304
- Evolution- BIO 4113
- Human Genetics- BIO 4133

University General Education Requirements:
- English Comp 1- EN 1103
- English Comp 2- EN 1113
- 1 Literature Elective (see elective sheet)
- 1 Fine Arts Elective (see elective sheet)
- 1 History Elective (see elective sheet)
- 2 Foreign Languages (see elective sheet)
  (must be the same language)
- Fundamentals of Public Speaking (CO 1003) (or)
- Intro to Communication (CO 1013)
- 2 Social Science Electives (see elective sheet)
  (must be from two separate disciplines)

Required Science Electives:
(Refer to List on Following Page)

Choose 5

Additional Degree Requirements:
- Chemistry 1- CH 1213
- Invst in Chemistry 1 (lab)- CH 1211
- Chemistry 2- CH 1223
- Invst in Chemistry 2 (lab)- CH 1221
- Organic Chemistry 1- CH 4513
- Organic Chemistry 1 Lab- CH 4511
- Organic Chemistry 2- CH 4523
- Organic Chemistry 2 Lab- 4521
- General Physics 1 w/ lab (trig based)- PH 1113
- General Physics 2 w/ lab (trig based)- PH 1123

General Physics 3 w/ lab (trig based)- PH 1133 %
(% only required for pre-med students planning to attend an out-of-state medical school)

Mathematics Requirements:
- Calculus 1- MA 1713*
- Intro to Statistical Inference- ST 3123**
- General Electives (any courses outside of degree requirements)
  15-20 Hours

(Do not take BIO 1004, BIO 1023, BIO 1123)

*Requires an ACT Math sub score of 26+ or a grade of “C” or better in Trigonometry or Pre-Calculus (MA 1453)
**Requires an ACT Math sub score of 24+ or a grade of “C” or better in College Algebra

(Pre-Dental Students must take the degree math requirements and College Algebra-MA 1313, or Trigonometry-MA 1323, or Calculus 2 MA-1723.)
**Required Science Elective Options**

- Survey of Plant Kingdom and Fungi w/ lab- BIO 2213 (spring only)
- Genetics 1 w/ lab- BIO 3103
- Parasitology w/ lab- BIO 3303
- Comparative Anatomy w/ lab- BIO 3504 (fall only)
- Biology of Vertebrates w/ lab- BIO 3524 (spring only)
- Principles of Biochemistry- BCH 4013
- Cellular Physiology w/ lab- BIO 4114 (spring only)
- Population Genetics w/ lab- BIO 4143 (spring only)
- Taxonomy of Spermatophytes w/ lab- BIO 4203 (spring only)
- Plant Anatomy w/ lab- BIO 4204 (fall only)
- Plant Ecology w/ lab- BIO 4213
- General Plant Physiology w/ lab- BIO 4214 (spring only)
- Aquatic Botany w/ lab- BIO 4224 (fall only)
- Living with Global Change- BIO 4233 (spring only)
- Immunology- BIO 4413 (spring only)
- Eukaryotic Microbiology w/ lab- BIO 4424
- Principles of Virology- BIO 4433 (spring only)
- Vertebrate Histology w/ lab- BIO 4503
- Comparative Vertebrate Embryology w/ lab- BIO 4504
- Animal Physiology w/ lab- BIO 4514 (spring only)
- Evo-Devo Biology- BIO 4563 (fall only)
- Ethnobotany w/ lab- BIO 4603
- General Biochemistry 1- BCH 4613
- General Biochemistry 2- BCH 4613
- Avian Diversity w/ lab- BIO 4703 (fall only)
COLLEGE OF ARTS & SCIENCES ELECTIVES

2018-2019

Optional Courses for Fine Arts, Humanities, Social Sciences & Behavioral, Foreign Language, and Public Speaking

FINE ARTS (ONE course required)
- AAS 1103 African American Music
- ARC 1013 Architectural Appreciation
- ART 1013 Art History I
- ART 1023 Art History II
- ART 1113 Art Appreciation
- CO 1503 Introduction to the Theatre
- HON 3173 Honors Seminar in Fine Arts
- MU 1103 African American Music
- MU 1113 History and Appreciation of Music
- MU 1123 History and Appreciation of American Music
- MU 1133 The History of Rock and Roll
- MU 2323 Music History III
- PE 1323 History and Appreciation of Dance

HUMANITIES (ONE EN and ONE HI course required)
- AAS 1063 Introduction to African American Studies
- AAS 2363 Introduction to African American Literature
- AAS 3013 African American History to 1865
- AAS 3023 African American History since 1865
- EN 2203 Introduction to Literature (Not applicable if honors sections are taken)
- EN 2213 English Literature before 1800
- EN 2223 English Literature After 1800
- EN 2243 American Literature Before 1865
- EN 2253 American Literature After 1865
- EN 2273 World Literature Before 1600
- EN 2283 World Literature After 1600
- HI 1063 Early U.S. History
- HI 1073 Modern U.S. History
- HI 1163 World History Before 1500
- HI 1173 World History Since 1500
- HI 1213 Early Western World
- HI 1223 Modern Western World
- HI 1313 East Asian Civilizations to 1300
- HI 1323 East Asian Civilizations Since 1300
- HI 3013 African American History to 1865
- HI 3023 African American History since 1865
- HON 1163 The Quest Begins
- HON 3183 Honors Seminar in the Humanities

SOCIAL AND BEHAVIORAL SCIENCES (TWO courses in different disciplines required)
- AN 1103 Introduction to Anthropology
- AN 1143 Introduction to Cultural Anthropology
- AN 1543 Introduction to Archaeology
- AN 2403 Introduction to the Study of Language
- CO 1223 Introduction to Communication Theory
- CO 1403 Introduction to Mass Media
- EC 1033 Economics of Social Media
- EC 2113 or 2123 Principles of Macroeconomics or Principles of Microeconomics
- EN 2403 Introduction to the Study of Language
- GR 1123 Introduction to World Geography
- GR 2013 Cultural Geography
- HON 1173 The West and the Wider World
- HON 3143 Honors Seminar in Social Science
- GR 3113 Conservation of Natural Resources
- PS 1113 American Government
- PS 1313 Introduction to International Relations
- PS 1513 Comparative Government
- PSY 1013 General Psychology
- PSY 3073 Psychology of Interpersonal Relations
- SO 1003 Introduction to Sociology
- SO 1103 Contemporary Social Problems
- SO 1203 Sociology of Families

FOREIGN LANGUAGE (TWO semesters in one language required)
- FLS 1113 and FLS 1123 Spanish I & II
- FLS 1113 and FLF 1123 French I & II
- FLL 1113 and FLG 1123 German I & II
- FLJ 1113 and FLJ 1123 Japanese I & II
- FLL 1113 and FLL 1123 Latin I & II
- FLR 1113 and FLR 1123 Russian I & II

PUBLIC SPEAKING (ONE REQUIRED)
- CO 1003 Fundamental of Public Speaking or
- CO 1013 Introduction to Communication