

Mississippi State University

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

(Must earn a "C" or higher in all Biology Courses)

Revised 05/2023

Biology Core Requirements:

Welcome to Biological Sciences-BIO 1111
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

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)

*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.)

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)
1 Foreign Language (see elective sheet)
(must be the second level - ex. FLS 1123)
1 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)

Mathematics Requirements:

Calculus 1 - MA 1713*
Intro to Statistical Inference- - ST 3123** **OR**
Intro to Statistics - ST 2113

General Electives (any courses outside of degree requirements)
15-20 Hours

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

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- BCH4613
- General Biochemistry 2- BCH4613
- Avian Diversity w/ lab- BIO 4703 (fall only)
- Biology of Cancer - BIO 3443
- Professional Writing for Biology - BIO 3013

COLLEGE OF ARTS AND SCIENCES REQUIREMENTS

Course options for Fine Arts, Humanities, Social and Behavioral Sciences,
Foreign Language and Public Speaking
Revised 5/2023

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 1143 The History of Jazz
- MU 1163 Introduction to Music in Film
- MU 1173 Music of the Beatles
- MU 2173 Women in Music
- MU 3013 Survey of Western Music History I
- 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
- or EN 2363 Introduction to African American Literature
- AAS 3013 African American History to 1865
- or HI 3013 African American History to 1865
- AAS 3023 African American History since 1865
- or HI 3023 African American History since 1865
- EN 2203 Introduction to Literature
- 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 1003 History of Science in Six Ideas
- HI 1013 History of Technology in Six Objects
- 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
- 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
- or EN 2403 Introduction to the Study of Language
- CO 1223 Introduction to Communication Theory
- CO 1403 Introduction to Mass Media
- EC 1033 Economics of Social Issues
- EC 2113 Principles of Macroeconomics **or**
- EC 2123 Principles of Microeconomics
- GR 1123 Introduction to World Geography
- GR 2013 Human Geography
- HON 1173 The West and the Wider World
- HON 3143 Honors Seminar in Social Science
- 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
- FLF 1113 and FLF 1123 French I & II
- FLG 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