# B. S. BIOLOGICAL SCIENCES

## FRESHMAN YEAR

| First Semester | | Second Semester | |
|---|---|---|---|
| BIOL 110 Prin. of Biol. I[1] | 5(4,3) | BIOL 111 Prin. of Biol. II[1] | 5(4,3) |
| BIOSC 101 Frontiers in Biol. I | 1(1,0) | BIOSC 102 Frontiers in Biol. II | 1(1,0) |
| CH 101 General Chemistry | 4(3,3) | CH 102 General Chemistry | 4(3,3) |
| COMM 150 Intro. to Human Comm. **or** | 3(2,2) | ENGL 103 Accelerated Composition. | 3(3,1) |
| COMM 250 Public Speaking | 3(3,1) | MTHSC 111 Calculus II for Biologists | 4(4,0) |
| MTHSC 106 Calculus of One Var. I | 4(4,0) | | 17 |
| | 17 | | |

## SOPHOMORE YEAR

| | | | |
|---|---|---|---|
| CH 223 Organic Chemistry **and** | 3(3,0) | CH 224 Organic Chemistry **and** | 3(3,0) |
| CH 227 Organic Chemistry Lab **or** | 1(0,3) | CH 228 Organic Chemistry Lab[5] **or** | 1(0,3) |
| CH 201 Survey of Organic Chemistry | 4(3,3) | Major Requirement[6] | 4 |
| Animal or Plant Diversity Requirement[2] | 4 | Animal or Plant Diversity Requirement[2] | 4 |
| Arts and Humanities (Literature) Req.[3] | 3 | Biochemistry or Genetics Requirement[4] | 3 |
| Biochemistry or Genetics Requirement[4] | 3 | Major Requirement[6] | 5 |
| | 14 | | 16 |

## JUNIOR YEAR

| | | | |
|---|---|---|---|
| BIOSC 335 Evolutionary Biology | 3(3,0) | PHYS 208 General Physics II **and** | 3(3,0) |
| BIOSC 461 Cell Biology | 3(3,0) | PHYS 210 General Physics II Lab **or** | 1(0,2) |
| BIOSC 462 Cell Biology Laboratory | 2(1,2) | PHYS 221 Physics with Calculus II **and** | 3(3,0) |
| ENGL 315 Scientific Writing and Comm. | 3(3,0) | PHYS 223 Physics Lab II | 1(0,3) |
| PHYS 207 General Physics I **and** | 3(3,0) | Arts and Humanities (Non-Lit) Req.[3] | 3 |
| PHYS 209 General Physics I Lab **or** | 1(0,2) | Major Requirement[6] | 5 |
| PHYS 122 Physics with Calculus I **and** | 3(3,0) | Social Science Requirement[3] | 3 |
| PHYS 124 Physics Lab I | 1(0,3) | | 15 |
| | 15 | | |

## SENIOR YEAR

| | | | |
|---|---|---|---|
| BIOSC 493 Senior Seminar | 2(2,0) | Major Requirement[6] | 12 |
| Major Requirement[6] | 13 | Social Science Requirement[3] | 3 |
| | 15 | | 15 |

**Total Semester Hours = 124**

[1] BIOL 110 and 111 are strongly recommended; however, BIOL 103/105 may substitute for BIOL 110 and BIOL 104/106 may substitute for BIOL 111. The remaining 1-2 credit hours required must be satisfied by completing 1-2 extra credits from departmental course offerings at the 300 level or higher. See advisor.

[2] At least one lecture and associated laboratory must be completed for both animal diversity (BIOSC 302/306, BIOSC 303/307 or other approved coursework) and for plant diversity (BIOSC 304/308, BIOSC 320, BIOSC 406/407 or other approved coursework).

[3] See General Education Requirements. Six of these credit hours must also satisfy the Cross-Cultural Awareness and the Science and Technology in Society Requirements.

[4] At least one lecture course must be completed for both biochemistry (BIOCH 301, 305 or other approved coursework) and for genetics (GEN 300, 302 or other approved coursework).

[5] BIOSC 434 may be substituted for CH 228.

[6] See advisor. Select one lecture/lab combination from each of the following fields: Ecology — BIOSC 441/445, 443/444, 446/447, 470/471. Physiology — BIOSC 316, 401/402, 459/460, 475/476. The remaining courses may be selected from EX ST 301, MTHSC 301 or other approved statistics courses, or any BIOCH, BIOSC, BOT, GEN, or MICRO courses at the 300-level or higher. Students planning on applying to medical/dental or graduate schools should take a statistics course.

# B. S. BIOLOGICAL SCIENCES
# TOXICOLOGY EMPHASIS

## FRESHMAN YEAR

| First Semester | | Second Semester | |
|---|---|---|---|
| BIOL 110 Prin. of Biol. I[1] | 5(4,3) | BIOL 111 Prin. of Biol. II[1] | 5(4,3) |
| BIOSC 101 Frontiers in Biol. I | 1(1,0) | BIOSC 102 Frontiers in Biol. II | 1(1,0) |
| CH 101 General Chemistry | 4(3,3) | CH 102 General Chemistry | 4(3,3) |
| COMM 150 Intro. to Human Comm. **or** | 3(2,2) | ENGL 103 Accelerated Composition. | 3(3,1) |
| COMM 250 Public Speaking | 3(3,1) | MTHSC 111 Calculus II for Biologists | 4(4,0) |
| MTHSC 106 Calculus of One Var. I | 4(4,0) | | |
| | 17 | | 17 |

## SOPHOMORE YEAR

| | | | |
|---|---|---|---|
| BIOSC 210 Intro. to Toxicology | 3(3,0) | CH 224 Organic Chemistry **and** | 3(3,0) |
| CH 223 Organic Chemistry[2] **and** | 3(3,0) | CH 228 Organic Chemistry Lab[5] **or** | 1(0,3) |
| CH 227 Organic Chemistry Lab[2] **or** | 1(0,3) | Major Requirement[6] | 4 |
| CH 201 Survey of Organic Chemistry | 4(3,3) | Animal or Plant Diversity Requirement[3] | 4 |
| Animal or Plant Diversity Requirement[3] | 4 | Biochemistry or Genetics Requirement[4] | 3 |
| Biochemistry or Genetics Requirement[4] | 3 | Major Requirement[6] | 5 |
| | 14 | | 16 |

## JUNIOR YEAR

| | | | |
|---|---|---|---|
| BIOSC 335 Evolutionary Biology | 3(3,0) | PHYS 208 General Physics II **and** | 3(3,0) |
| ENGL 315 Scientific Writing and Comm. | 3(3,0) | PHYS 210 General Physics II Lab **or** | 1(0,3) |
| ENTOX (ENT) 430 Toxicology | 3(3,0) | PHYS 221 Physics with Calculus II **and** | 3(3,0) |
| PHYS 207 General Physics I **and** | 3(3,0) | PHYS 223 Physics Lab | 1(0,2) |
| PHYS 209 General Physics I Lab **or** | 1(0,2) | Arts and Humanities (Literature) Req.[7] | 3 |
| PHYS 122 Physics with Calculus I **and** | 3(3,0) | Major Requirement[6] | 4 |
| PHYS 124 Physics Lab I | 1(0,3) | Social Science Requirement[7] | 3 |
| Major Requirement[6] | 3 | | 14 |
| | 16 | | |

## SENIOR YEAR

| | | | |
|---|---|---|---|
| BIOSC 461 Cell Biology | 3(3,0) | CH 413 Chemistry of Aquatic Systems | |
| BIOSC 462 Cell Biology Laboratory | 2(1,2) | **or** ENTOX 421 Chemical Fate in Env | 3(3,0) |
| BIOSC 493 Senior Seminar | 2(2,0) | Arts and Humanities (Non-Lit.) Req.[7] | 3 |
| CH 313 Quantitative Analysis | 3(3,0) | Major Requirement[6] | 4 |
| CH 317 Quantitative Analysis Lab | 1(0,3) | Social Science Requirement[7] | 3 |
| Major Requirement[6] | 3 | Toxicology Requirement[8] | 3 |
| | 14 | | 16 |

**Total Semester Hours = 124**

[1] BIOL 110 and 111 are strongly recommended; however, BIOL 103/105 may substitute for BIOL 110 and BIOL 104/106 may substitute for BIOL 111. The remaining 1-2 credit hours required must be satisfied by completing 1-2 extra credits from departmental course offerings at the 300 level or higher. See advisor.

[2] CH 223, 227, and 224 are recommended.

[3] At least one lecture and associated laboratory must be completed for both animal diversity (BIOSC 302/306, BIOSC 303/307 or other approved coursework) and for plant diversity (BIOSC 304/308, BIOSC 320, BIOSC 406/407 or other approved coursework).

[4] At least one lecture course must be completed for both biochemistry (BIOCH 301, 305 or other approved coursework) and for genetics (GEN 300, 302 or other approved coursework).

[5] BIOSC 434 may be substituted for CH 228.

[6] See advisor. Select one lecture/lab combination from each of the following fields: BIOSC 459/460 or 475/476 is recommended to satisfy the Physiology Requirement. Ecology — BIOSC 441/445, 443/444, 446/447, 470/471. Physiology — BIOSC 316, 401/402, 459/460, 475/476. The remaining courses may be selected from EX ST 301, MTHSC 301, or other approved statistics courses, or any BIOCH, BIOSC, BOT, GEN, or MICRO courses at the 300-level or higher. Students planning on applying to medical/dental or graduate schools should take a statistics course.

[7] See General Education Requirements. Six of these credit hours must also satisfy the Cross-Cultural Awareness and the Science and Technology in Society Requirements.

[8] Any 400-level ENTOX course.

# B. S. BIOLOGICAL SCIENCES
# QUANTITATIVE BIOLOGY EMPHASIS

## FRESHMAN YEAR

| First Semester | | Second Semester | |
|---|---|---|---|
| BIOL 110 Prin. of Biol. I[1] | 5(4,3) | BIOL 111 Prin. of Biol. II[1] | 5(4,3) |
| BIOSC 101 Frontiers in Biol. I | 1(1,0) | BIOSC 102 Frontiers in Biol. II | 1(1,0) |
| CH 101 General Chemistry | 4(3,3) | CH 102 General Chemistry | 4(3,3) |
| COMM 150 Intro. to Human Comm. **or** | 3(2,2) | ENGL 103 Accelerated Composition. | 3(3,1) |
| COMM 250 Public Speaking | 3(3,1) | MTHSC 111 Calculus II for Biologists | 4(4,0) |
| MTHSC 106 Calculus of One Var. I | 4(4,0) | | 17 |
| | 17 | | |

## SOPHOMORE YEAR

| | | | |
|---|---|---|---|
| CH 223 Organic Chemistry **and** | 3(3,0) | CH 224 Organic Chemistry **and** | 3(3,0) |
| CH 227 Organic Chemistry Lab **or** | 1(0,3) | CH 228 Organic Chemistry Lab[5] **or** | 1(0,3) |
| CH 201 Survey of Organic Chemistry | 4(3,3) | Major Requirement[6] | 4 |
| Animal or Plant Diversity Requirement[2] | 4 | EX ST 301 Introductory Statistics I | 3(2,2) |
| Biochemistry or Genetics Requirement[3] | 3 | Animal or Plant Diversity Requirement[2] | 4 |
| Partial Differential Equations Requirement[4] | 3 | Biochemistry or Genetics Requirement[3] | 3 |
| | 14 | Major Requirement[6] | 3 |
| | | | 17 |

## JUNIOR YEAR

| | | | |
|---|---|---|---|
| BIOSC 335 Evolutionary Biology | 3(3,0) | BIOSC 428 Quantitative Biology | 4(3,3) |
| ENGL 315 Scientific Writing and Comm. | 3(3,0) | BIOSC 461 Cell Biology | 3(3,0) |
| EX ST 311 Introductory Statistics II | 3(2,2) | BIOSC 462 Cell Biology Laboratory | 2(1,2) |
| PHYS 207 General Physics I **and** | 3(3,0) | PHYS 208 General Physics II **and** | 3(3,0) |
| PHYS 209 General Physics I Lab **or** | 1(0,2) | PHYS 210 General Physics II Lab **or** | 1(0,2) |
| PHYS 122 Physics with Calculus I **and** | 3(3,0) | PHYS 221 Physics with Calculus II **and** | 3(3,0) |
| PHYS 124 Physics Lab I | 1(0,3) | PHYS 223 Physics Lab II | 1(0,3) |
| Major Requirement[6] | 3 | Social Science Requirement[7] | 3 |
| | 16 | | 16 |

## SENIOR YEAR

| | | | |
|---|---|---|---|
| BIOSC 493 Senior Seminar | 2(2,0) | BIOSC 491 Undergraduate Research | 1(0,3) |
| GEN 440 Bioinformatics | 3(3,0) | Arts and Humanities (Non-Lit) Req.[7] | 3 |
| Arts and Humanities (Literature) Req[7] | 3 | Major Requirement[6] | 5 |
| Major Requirement[6] | 8 | Social Science Requirement[7] | 3 |
| | 16 | | 12 |

**Total Semester Hours = 125**

1 BIOL 110 and 111 are strongly recommended; however, BIOL 103/105 may substitute for BIOL 110 and BIOL 104/106 may substitute for BIOL 111. The remaining 1-2 credit hours required must be satisfied by completing 1-2 extra credits from departmental course offerings at the 300 level or higher. See advisor.

2 At least one lecture and associated laboratory must be completed for both animal diversity (BIOSC 302/306, BIOSC 303/307 or other approved coursework) and for plant diversity (BIOSC 304/308, BIOSC 320, BIOSC 406/407 or other approved coursework).

3 At least one lecture course must be completed for both biochemistry (BIOCH 301, 305 or other approved coursework) and for genetics (GEN 300, 302 or other approved coursework).

4 See advisor.

5 BIOSC 434 may be substituted for CH 228.

6 See advisor. Select one lecture/lab combination from each of the following fields: *Ecology* — BIOSC 441/445, 443/444, 446/447, 470/471. *Physiology* — BIOSC 316, 401/402, 459/460, 475/476. The remaining courses may be selected from any BIOCH, BIOSC, BOT, GEN, or MICRO courses at the 300-level or higher.

7 See General Education Requirements. Six of these credit hours must also satisfy the Cross-Cultural Awareness and the Science and Technology in Society Requirements.

# B. A. BIOLOGICAL SCIENCES
# PREREHABILITATION SCIENCES EMPHASIS

## FRESHMAN YEAR

| First Semester | | Second Semester | |
|---|---|---|---|
| BIOL 103 General Biology I[1] **and** | 3(3,0) | BIOL 104 General Biology II[1] **and** | 3(3,0) |
| BIOL 105 General Biology Lab I[1] | 1(0,3) | BIOL 106 General Biology Lab II[1] | 1(0,3) |
| BIOSC 101 Frontiers in Biology I | 1(1,0) | BIOSC 102 Frontiers in Biology II | 1(1,0) |
| CH 101 General Chemistry | 4(3,3) | CH 102 General Chemistry | 4(3,3) |
| COMM 150 Intro. to Human Comm. **or** | 3(2,2) | ENGL 103 Accelerated Composition. | 3(3,1) |
| COMM 250 Public Speaking | 3(3,1) | Statistics Requirement[2] | 3 |
| MTHSC 106 Cal. of One Var. I | 4(4,0) | | 15 |
| | 16 | | |

## SOPHOMORE YEAR

| | | | |
|---|---|---|---|
| CH 201 Survey of Organic Chemistry | 4(3,3) | PSYCH 201 | 3(3,0) |
| Animal or Plant Diversity Requirement[3] | 4 | Animal or Plant Diversity Requirement[3] | 4 |
| Biochemistry or Genetics Requirement[4] | 3 | Biochemistry or Genetics Requirement[4] | 3 |
| Foreign Language Requirement[5] | 4 | Foreign Language Requirement[5] | 4 |
| | 15 | Social Science Requirement[6] | 3 |
| | | | 17 |

## JUNIOR YEAR

| | | | |
|---|---|---|---|
| BIOSC 315 Functional Human Anatomy | 4(3,3) | BIOSC 316 Human Physiology | 4(3,3) |
| BIOSC 335 Evolutionary Biology | 3(3,0) | Arts and Humanities (Non-Lit) Req.[6] | 3 |
| BIOSC 461 Cell Biology | 3(3,0) | Foreign Language Requirement[5] | 3 |
| BIOSC 462 Cell Biology Laboratory | 2(1,2) | Minor Requirement[7] | 6 |
| Foreign Language Requirement[5] | 3 | | 16 |
| | 15 | | |

## SENIOR YEAR

| | | | |
|---|---|---|---|
| BIOSC 493 Senior Seminar | 2(2,0) | PHYS 208 General Physics II | 3(3,0) |
| ENGL 315 Scientific Writing and Comm. | 3(3,0) | PHYS 210 General Physics II Lab | 1(0,2) |
| PHYS 207 General Physics I | 3(3,0) | Arts and Humanities (Literature) Req.[6] | 3 |
| PHYS 209 General Physics I Lab | 1(0,2) | Major Requirement[8] | 3 |
| Minor Requirement[7] | 3 | Minor Requirement[7] | 6 |
| Social Science Requirement[6] | 3 | | 16 |
| | 15 | | |

**Total Semester Hours = 125**

[1] Rehabilitation programs require BIOL 103/105 and BIOL 104/106, or equivalent; however, BIOL 110 and BIOL 111 may substitute. The additional 1-2 credits will be subtracted from the Major Requirement credits.

[2] EX ST 301, MTHSC 301, or other approved coursework.

[3] At least one lecture and associated laboratory must be completed for both animal diversity (BIOSC 302/306, BIOSC 303/307 or other approved coursework) and for plant diversity (BIOSC 304/308, BIOSC 320, BIOSC 406/407, or other approved coursework).

[4] At least one lecture course must be completed for both biochemistry (BIOCH 301, 305, or other approved coursework) and for genetics (GEN 300, 302, or other approved coursework).

[5] Four semesters (through 202) in the same modern foreign language are required.

[6] See General Education Requirements. Six of these credit hours must also satisfy the Cross-Cultural Awareness and the Science and Technology in Society Requirements.

[7] See page 61 for approved minors. Psychology is recommended. The Medical University of South Carolina and other Rehabilitation Sciences programs require PSYCH 201 and 383.

[8] See advisor. Select one lecture course in ecology (BIOSC 441, 443, 446, 470). The remaining course must be selected from MICRO 305, or any BIOSC courses at the 300 level or higher. BIOSC 478 or 479 is recommended.

*Notes:*

1. HLTH 350 is recommended
2. American Heart Association Basic Life Support for Health Professionals is required.

# B. S. BIOLOGICAL SCIENCES
# PREPHARMACY EMPHASIS

## FRESHMAN YEAR

| First Semester | | Second Semester | |
|---|---|---|---|
| BIOL 103 General Biology I[1] **and** | 3(3,0) | BIOL 104 General Biology II[1] **and** | 3(3,0) |
| BIOL 105 General Biology I[1] Lab | 1(0,3) | BIOL 106 General Biology II[1] Lab | 1(0,3) |
| BIOSC 101 Frontiers in Biol. I | 1(1,0) | BIOSC 102 Frontiers in Biol. II | 1(1,0) |
| CH 101 General Chemistry | 4(3,3) | CH 102 General Chemistry | 4(3,3) |
| COMM 150 Intro. to Human Comm. **or** | 3(2,2) | ENGL 103 Accelerated Composition. | 3(3,1) |
| COMM 250 Public Speaking | 3(3,1) | MTHSC 111 Calculus II for Biologists | 4(4,0) |
| MTHSC 106 Calculus of One Var. I | 4(4,0) | | 16 |
| | 16 | | |

## SOPHOMORE YEAR

| | | | |
|---|---|---|---|
| CH 223 Organic Chemistry **and** | 3(3,0) | CH 224 Organic Chemistry and | 3(3,0) |
| CH 227 Organic Chemistry Lab | 1(0,3) | CH 228 Organic Chemistry Lab | 1(0,3) |
| Animal or Plant Diversity Requirement[2] | 4 | MICRO 305 General Microbiology | 4(3,3) |
| Arts and Humanities (Literature) Req.[3] | 3 | Animal or Plant Diversity Requirement[2] | 4 |
| Biochemistry or Genetics Requirement[4] | 3 | Biochemistry or Genetics Requirement[4] | 3 |
| Social Science Requirement[3] | 3 | | 15 |
| | 17 | | |

## JUNIOR YEAR

| | | | |
|---|---|---|---|
| BIOSC 315 Functional Human Anatomy | 4(3,3) | PHYS 208 General Physics II **and** | 3(3,0) |
| BIOSC 335 Evolutionary Biology | 3(3,0) | PHYS 210 General Physics II Lab **or** | 1(0,2) |
| ENGL 315 Scientific Writing and Comm. | 3(3,0) | PHYS 221 Physics with Calculus II **and** | 3(3,0) |
| PHYS 207 General Physics I **and** | 3(3,0) | PHYS 223 Physics Lab II | 1(0,3) |
| PHYS 209 General Physics I Lab **or** | 1(0,2) | PSYCH 201 | 3 |
| PHYS 122 Physics with Calculus I **and** | 3(3,0) | Animal Physiology Requirement[5] | 4 |
| PHYS 124 Physics Lab I | 1(0,3) | Economics Requirement[6] | 3 |
| | 14 | Major Requirement[7] | 3 |
| | | | 17 |

## SENIOR YEAR

| | | | |
|---|---|---|---|
| BIOSC 461 Cell Biology | 3(3,0) | Major Requirement[7] | 11 |
| BIOSC 462 Cell Biology Laboratory | 2(1,2) | Arts and Humanities (Non-Lit) Req.[3] | 3 |
| BIOSC 493 Senior Seminar | 2(2,0) | | 14 |
| Major Requirement[7] | 8 | | |
| | 15 | | |

**Total Semester Hours = 124**

[1] Pharmacy programs require BIOL 103/105 and BIOL 104/106, or equivalent; however, BIOL 110 and BIOL 111 may substitute. The additional 1-2 credit hours will be subtracted from the Major Requirement credits.

[2] At least one lecture and associated laboratory must be completed for both animal diversity (BIOSC 302/306, BIOSC 303/307 or other approved coursework) and for plant diversity (BIOSC 304/308, BIOSC 320, BIOSC 406/407 or other approved coursework).

[3] See General Education Requirements. Six of these credit hours must also satisfy the Cross-Cultural Awareness and the Science and Technology in Society Requirements.

[4] At least one lecture course must be completed for both biochemistry (BIOCH 301, 305 or other approved coursework) and for genetics (GEN 300, 302 or other approved coursework).

[5] BIOSC 316, 459/460, or 475/476

[6] ECON 200, 211, or 212

[7] See advisor. Select one lecture/lab combination in ecology (BIOSC 441/445, 443/444, 446/447, 470/471). The remaining courses may be selected from EX ST 301, MTHSC 301, or other approved statistics courses, or any BIOCH, BIOSC, BOT, GEN, or MICRO courses at the 300-level or higher. Students planning on applying to medical/dental or graduate schools should take a statistics course.

# B. S. BIOLOGICAL SCIENCES
# ENTOMOLOGY EMPHASIS

## FRESHMAN YEAR

| First Semester | | Second Semester | |
|---|---|---|---|
| BIOL 110 Prin. of Biol. I[1] | 5(4,3) | BIOL 111 Prin. of Biol. II[1] | 5(4,3) |
| BIOSC 101 Frontiers in Biol. I | 1(1,0) | BIOSC 102 Frontiers in Biol. II | 1(1,0) |
| CH 101 General Chemistry | 4(3,3) | CH 102 General Chemistry | 4(3,3) |
| COMM 150 Intro. to Human Comm. **or** | 3(2,2) | ENGL 103 Accelerated Composition. | 3(3,1) |
| COMM 250 Public Speaking | 3(3,1) | MTHSC 111 Calculus II for Biologists | 4(4,0) |
| MTHSC 106 Calculus of One Var. I | 4(4,0) | | 17 |
| | 17 | | |

## SOPHOMORE YEAR

| | | | |
|---|---|---|---|
| CH 223 Organic Chemistry **and** | 3(3,0) | CH 224 Organic Chemistry **and** | 3(3,0) |
| CH 227 Organic Chemistry Lab **or** | 1(0,3) | CH 228 Organic Chemistry Lab[4] **or** | 1(0,3) |
| CH 201 Survey of Organic Chemistry | 4(3,3) | Major Requirement[5] | 4 |
| ENT (BIOSC) 301 Insect Biol. & Div | 4(3,3) | Biochemistry or Genetics Requirement[3] | 3 |
| Arts and Humanities (Literature) Req.[2] | 3 | Major Requirement[5] | 5 |
| Biochemistry or Genetics Requirement[3] | 3 | Plant Diversity Requirement[6] | 4 |
| | 14 | | 16 |

## JUNIOR YEAR

| | | | |
|---|---|---|---|
| BIOSC 335 Evolutionary Biology | 3(3,0) | PHYS 208 General Physics II and | 3(3,0) |
| ENGL 315 Scientific Writing and Comm. | 3(3,0) | PHYS 210 General Physics II Lab **or** | 1(0,2) |
| PHYS 207 General Physics I **and** | 3(3,0) | PHYS 221 Physics with Calculus II **and** | 3(3,0) |
| PHYS 209 General Physics I Lab **or** | 1(0,2) | PHYS 223 Physics Lab II | 1(0,3) |
| PHYS 122 Physics with Calculus I **and** | 3(3,0) | Arts and Humanities (Non-Lit) Req.[2] | 3 |
| PHYS 124 Physics Lab I | 1(0,3) | Entomology Requirement[7] | 3 |
| Entomology Requirement[7] | 4 | Major Requirement[5] | 3 |
| | 14 | Social Science Requirement[2] | 3 |
| | | | 16 |

## SENIOR YEAR

| | | | |
|---|---|---|---|
| BIOSC 461 Cell Biology | 3(3,0) | Entomology Requirement[7] | 3 |
| BIOSC 462 Cell Biology Laboratory | 2(1,2) | Major Requirement[5] | 9 |
| BIOSC 493 Senior Seminar | 2(2,0) | Social Science Requirement[2] | 3 |
| Entomology Requirement[7] | 4 | | 15 |
| Major Requirement[5] | 4 | | |
| | 15 | | |

**Total Semester Hours = 124**

[1] BIOL 110 and 111 are strongly recommended; however, BIOL 103/105 may substitute for BIOL 110 and BIOL 104/106 may substitute for BIOL 111. The remaining 1-2 credits required must be satisfied by completing 1-2 extra credit hours from departmental course offerings at the 300 level or higher. See advisor.

[2] See General Education Requirements. Six of these credit hours must also satisfy the Cross-Cultural Awareness and the Science and Technology in Society Requirements.

[3] At least one lecture course must be completed for both biochemistry (BIOCH 301, 305 or other approved coursework) and for genetics (GEN 300, 302 or other approved coursework).

[4] BIOSC 434 may be substituted for CH 228.

[5] See advisor. Select one lecture/lab combination from each of the following fields. BIOSC 475 and 476 are recommended to satisfy the Physiology Requirement. Ecology — BIOSC 441/445, 443/444, 446/447, 470/471. Physiology — BIOSC 316, 401/402, 459/460, 475/476. The remaining courses may be selected from EX ST 301, MTHSC 301, or other approved statistics courses, or any BIOCH, BIOSC, BOT, GEN, or MICRO courses at the 300-level or higher. Students planning on applying to medical/dental or graduate schools should take a statistics course.

[6] At least one lecture and associated laboratory must be completed for plant diversity (BIOSC 304/308, BIOSC 320, BIOSC 406/407 or other approved coursework).

[7] ENT (BIOSC) 400, (BIOSC) 415 and seven additional credits selected from ENT 300, 308, 401, 404/409, 407, (BIOSC) 436, (BIOSC) 455, (BIOSC, WFB) 469, 490, (GEN) 495, or PL PA (ENT) 406.

# B. A. BIOLOGICAL SCIENCES

## FRESHMAN YEAR

| First Semester | | Second Semester | |
|---|---|---|---|
| BIOL 110 Prin. of Biol. I[1] | 5(4,3) | BIOL 111 Prin. of Biol. II[1] | 5(4,3) |
| BIOSC 101 Frontiers in Biology I[2] | 1(1,0) | BIOSC 102 Frontiers in Biology II[2] | 1(1,0) |
| CH 101 General Chemistry | 4(3,3) | CH 102 General Chemistry | 4(3,3) |
| COMM 150 Intro. to Human Comm. **or** | 3(2,2) | ENGL 103 Accelerated Composition. | 3(3,1) |
| COMM 250 Public Speaking | 3(3,1) | Mathematical Sciences Requirement[3] | 3-4 |
| MTHSC 106 Cal. of One Var. I | 4(4,0) | | 16-17 |
| | 17 | | |

## SOPHOMORE YEAR

| | | | |
|---|---|---|---|
| CH 201 Survey of Organic Chemistry[4] | 4(3,3) | Animal or Plant Diversity Requirement[5] | 4 |
| Animal or Plant Diversity Requirement[5] | 4 | Biochemistry or Genetics Requirement[6] | 3 |
| Biochemistry or Genetics Requirement[6] | 3 | Foreign Language Requirement[7] | 4 |
| Foreign Language Requirement[7] | 4 | Major Requirement[8] | 4 |
| | 15 | | 15 |

## JUNIOR YEAR

| | | | |
|---|---|---|---|
| BIOSC 335 Evolutionary Biology | 3(3,0) | Arts and Humanities (Non-Lit) Req.[11] | 3 |
| BIOSC 461 Cell Biology | 3(3,0) | Foreign Language Requirement[7] | 3(3,0) |
| BIOSC 462 Cell Biology Laboratory[9] | 2(1,2) | Major Requirement[8] | 3 |
| ENGL 315 Scientific Writing and Comm. | 3(3,0) | Minor Requirement[10] | 6 |
| Foreign Language Requirement[7] | 3(3,0) | | 15 |
| Minor Requirement[10] | 3 | | |
| | 17 | | |

## SENIOR YEAR

| | | | |
|---|---|---|---|
| BIOSC 493 Senior Seminar | 2(2,0) | PHYS 208 General Physics II | 3(3,0) |
| PHYS 207 General Physics I | 3(3,0) | PHYS 210 General Physics II Lab | 1(0,2) |
| PHYS 209 General Physics I Lab | 1(0,2) | Arts and Humanities (Literature) Req.[9] | 3 |
| Major Requirement[8] | 3 | Major Requirement[8] | 2 |
| Minor Requirement[10] | 3 | Minor Requirement[10] | 3 |
| Social Science Requirement[11] | 3 | Social Science Requirement[11] | 3 |
| | 15 | | 15 |

**Total Semester Hours = 125 - 126**

1 BIOL 110 and 111 are strongly recommended; however, BIOL 103/105 may substitute for BIOL 110 and BIOL 104/106 may substitute for BIOL 111. The remaining 1-2 credits required must be satisfied by completing 1-2 extra credits from departmental course offerings at the 300-level or higher. See advisor.

2 Students seeking a double major in Science Teaching/Biological Sciences should substitute ED 105 for BIOSC 101, 102.

3 EX ST 301, MTHSC 111, 301, or other approved coursework. See advisor. Medical/dental schools have different mathematics requirements.

4 CH 223 and 227 may be substituted for CH 201. Most professional health sciences schools require two semesters of organic chemistry with laboratory.

5 At least one lecture and associated laboratory must be completed for both animal diversity (BIOSC 302/306, BIOSC 303/307 or other approved coursework) and for plant diversity (BIOSC 304/308, BIOSC 320, BIOSC 406/407 or other approved coursework).

6 At least one lecture course must be completed for both biochemistry (BIOCH 301, 305 or other approved coursework) and for genetics (GEN 300, 302 or other approved coursework).

7 Four semesters (through 202) in the same modern foreign language are required.

8 See advisor. Select one lecture course from each of the following fields. *Ecology* — BIOSC 441, 443, 446, 470; *Physiology* — BIOSC 316, 401, 459, 475. The remaining courses may be selected from MICRO 305, or any BIOSC or BOT courses at the 300 level or higher. Students seeking a double major in Science Teaching/Biological Sciences should substitute EDSEC 457 for the remaining courses.

9 Students seeking a double major in Science Teaching/Biological Sciences should substitute BIOSC 482 for BIOSC 462.

10 See page 61 for approved minors.

11 See General Education Requirements. Six of these credit hours must also satisfy the Cross-Cultural Awareness and the Science and Technology in Society Requirements.