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**BACHELOR OF SCIENCE DEGREE IN BIOLOGY**

Biology I. Required: 18 hours, lower division (1000-2000 Level)

**Area F Titled Credit hrs.**

BIOL 2111K Biology I 4

BIOL 2112K Biology II 4

CHEM 2301K Organic Chemistry I 4

CHEM 2302K Organic Chemistry II 4

**Total Area F 16**

**Total Core Curriculum 59**

|  |  |  |  |
| --- | --- | --- | --- |
| **Major Courses** |  | | |
| BIOL | 2211K | General Microbiology | 4 |
| BIOL | 2311K | General Botany | 4 |
| BIOL | 3101K | Environmental Biology | 4 |
| BIOL | 3501K | Principles of Genetics | 4 |
| BIOL | 4001 | Research and Independent Study I | 1 |
| BIOL | 4222 | Biology Research | 3 |
| BIOL | 4701K | Cell and Molecular Biology | 4 |

**Biology Electives 13**

|  |  |  |
| --- | --- | --- |
| CHEM | 3250KBiochemistry | 4 |
| MATH 1211 Calculus I | | 4 |
| PHYS 1111K Introductory Physics I | | 4 |
| PHYS 1112K Introductory Physics II | | 4 |
| PHYS 2100 Computer Applications (If not in Area D) | | 3 |
| SPAN, FREN OR GRMN Foreign Language sequence | | 6 |
| Electives (Non-Science) | | 3 |
| Total (Major and other courses) | | 61 |
| Total above Core Hours | | 6 |
| **Total Hours in Program** | | **126** |

**PROGRAM OF STUDY FOR A BACHELOR OF SCIENCE DEGREE IN BIOLOGY**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Freshman Year Fall** | | | | **Spring** |
| ASU | 1200 | Freshman Seminar | 3 |  |
| HIST | 1002 | Intro. to African Diaspora | 2 |  |
| ENGL | 1101 and 1102 | English Composition I & II | 3 | 3 |
| MATH | 1113 | Pre-Calculus |  | 3 |
| CHEM | 1211K and 1212K | General Chemistry I & II | 4 | 4 |
| BIOL | 2111K and 2112K | Biology I & II | 4 | 4 |
| BIOL | 1801 | (Elective) |  | 1 |
| PEDH | choice |  |  | 1 |
| **Totals** |  |  | **16** | **16** |

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| --- | --- | --- | --- | --- |
| **Albany State**  **Sophomore Ye**  PEDH | **ar**  Choice |  | **Fall**  1 | **Spring**  1 |
| ENGL | 2111 | World Literature |  | 3 |
| CHEM | 2301K and 2302K | Organic Chemistry I and II | 4 | 4 |
| BIOL | 2211K | General Microbiology |  | 4 |
| POLS | 1101 | U.S. & GA Government |  | 3 |
| MATH | 1211 | Calculus I | 4 |  |
| PHYS | 2100 | Computer Applications | 3 |  |
| BIOL | 2311K | Botany I | 4 |  |
| **Totals** |  |  | **16** | **15** |
| **Junior Year** |  |  | **Fall** | **Spring** |
| HIST | 1111 | World History I |  | 3 |
| MUSC | 1100 | Music Apprec. or ARAP 1100 Art Apprec. |  | 3 |
| PHYS | 1111K and 1112K | Introduction to Physics I and II | 4 | 4 |
| BIOL | 3101K | Environmental Biology |  | 4 |
| CHEM | 3250K | Biochemistry | 4 |  |
| COMM | 1100 | Anal. Disc. Of Global Issues | 3 |  |
| BIOL | 3501K | Principles of Genetics | 4 |  |
| BIOL |  | Elective |  | 3 |
| **Totals** |  |  | **15** | **17** |
| **Senior Year** |  |  | **Fall** | **Spring** |
| BIOL 4222 Biology Research | | |  | 2 |
| BIOL 4701K Cell and Molecular Biology | | | 4 |  |
| Foreign Language (Spanish, French of German sequence) | | | 3 | 3 |
| NON-Science Electives | | |  | 3 |
| Biology Electives | | | 4 | 4 |
| BIOL 4001 Research and Indep. Study I | | | 1 | 1 |
| Area E Choice | | | 3 | 3 |
| **Totals** | | | **15** | **17** |

**Biology Electives Credit Hrs.**

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| --- | --- | --- | --- |
| **Courses** | **Title** |  | |
| BIOL | 1801 | Science Career Explorations | 1 |
| BIOL | 2113K | Invertebrate Zoology | 3 |
| BIOL | 2312K | General Botany II | 4 |
| BIOL | 2412K | Anatomy and Physiology II | 4 |
| BIOL | 2415 | Scientific Writing | 3 |
| BIOL | 3201K | Entomology | 4 |
| BIOL | 3309K | Plant Anatomy | 3 |
| BIOL | 3311K | Introduction to Natural Resources | 3 |
| BIOL | 3312K | Planning and Managing Natural Resources | 3 |
| BIOL | 3313K | Natural Resources and Environmental Policy | 3 |
| BIOL | 3314K | Use of Energy Resources | 3 |
| BIOL | 3315K | Conservation of Energy Resources | 3 |
| BIOL | 3316K | Sources and Uses of Plant & Wildlife Resources | 3 |
| BIOL | 3317K | Natural Resources and Food Production | 3 |
| BIOL | 3318K | Marine Life Resources | 3 |
| BIOL | 3319K | Conservation of Marine Life Resources | 3 |
| BIOL | 3320K | Principles and Techniques in Water Resource Services | 4 |
| BIOL | 3321K | Conservation of Plant and Wildlife Resources | 3 |
| BIOL | 3401K | Introduction to Histology | 4 |
| BIOL | 3611K | Medical Mycology | 4 |
| BIOL | 3801K | Electron Microscopy | 3 |
| BIOL | 3901 | Pathophysiology | 3 |
| BIOL | 4002 | Research and Independent Study II | 1 |
| BIOL | 4101K | General Physiology | 4 |
| BIOL | 4201K | Introduction to Parasitology | 4 |
| BIOL | 4301K | Developmental Biology | 4 |
| BIOL | 4401K | Comparative Vertebrate Anatomy | 4 |
| BIOL | 4501K | Immunology | 4 |
| BIOL | 4601K | Plant Physiology | 4 |
| BIOL | 4702K | Biotechnology | 4 |

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**Non-Biology Elective**

|  |  |  |  |
| --- | --- | --- | --- |
| MATH | 2411 | Basic Statistics or | 3 |
| PHYS | 2120 | Applied Math for Sciences I | 3 |

**RECOMMENDED ELECTIVES FOR SPECIFIC CAREER CHOICES I. Graduate School Courses selected in conjunction with advisor.**

**II. Pre-Health Careers (Courses are selected from those listed below).**

|  |  |  |
| --- | --- | --- |
| BIOL | 3401K | Histology |
| BIOL | 4101K | General Physiology |
| BIOL | 4301K | Developmental Biology |
| BIOL | 4401K | Comp. Vert. Anatomy |

**III. Biological Careers (Botanical Emphasis)**

|  |  |  |
| --- | --- | --- |
| BIOL | 3309K | Plant Anatomy |
| BIOL | 2312K | Botany |
| BIOL | 4601K | Plant Physiology |

**Requirements for a Minor in Biology (Minimum of 20 hours)**

Students desiring a minor in Biology are required to complete the following courses:

|  |  |  |  |
| --- | --- | --- | --- |
| BIOL | 2111K and 2112K | General Biology I and II | 8 |
| BIOL | 2311K | General Botany I | 4 |
| BIOL | 3101K | Environmental Biology 4 or appropriate Biology substitute |  |
| BIOL | 4701K | Cell and Molecular Biology | 4 |
| **Total** |  |  | **20** |

**Biology**

Environmental Emphasis (Minor acquired after completion of a minimum of 21 hours)

**Required Courses for a Minor in Natural Resources (9 hours)**

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|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| BIOL |  | 3311K | Introduction to Natural Resources |  | 3 |
| BIOL |  | 3312K | Planning and Managing Natural Resources |  | 3 |
| BIOL |  | 3313K | Natural Resources and Environmental Policy |  | 3 |
| **Four A**  I. | **ddition**  BIOL | **al Courses fro**  3314K | **m Categories I, II, III and IV:**  Use of Energy Resource or | 3 |  |
|  | BIOL | 3315K | Conservation of Energy Resources | 3 |  |
| II. | BIOL BIOL | 3318K  3319K | Marine Life Resources or  Conservation of Marine Life Resources 3 | 3 |  |
| III. | BIOL | 3320K | Principles and Techniques in Water Resources Services | 4 |  |
|  | BIOL | 3316K | Sources and Uses of Plants and Wildlife Resources | 3 |  |
| iv. | BIOL | 3317K | Natural Resources and Food Production | 3 |  |
|  | BIOL | 3321K | Conservation of Plant and Wildlife Resources | 3 |  |