

BIOLOGY: Bachelor of Science

(124 cr)

Keene State College

2007-2008 Catalog

INTEGRATIVE STUDIES PROGRAM (ISP) REQUIREMENTS (44 cr)

Note: Students must complete their **Thinking & Writing** requirement within their first two semesters and their **Quantitative Literacy** requirement within their first three semesters.

Foundations

ITW: Thinking & Writing _____

IQL: Quantitative Literacy _____

Perspectives

NOTE: Students may take only **one** course in any specific discipline within the *PERSPECTIVES* area. Disciplines are shown in **BOLD**, such as IAART.

IA: Arts – IAART, IAMU, IATAD

1 course: _____

IH: Humanities - IHCOMM, IHENG, IHFILM, IHFR, IHGER, IHHIST, IHJRN, IHML, IHPHIL, IHSP

2 courses: _____ _____

IA/IH: 1 additional course in either IA or IH

1 course: _____

IN: Natural Sciences – INASTR, INBIO, INCHEM, INGEOL, INMET, INPHYS

2 courses: _____ _____

IS: Social Sciences – ISANTH, ISCJS, ISECON, ISGEOG, ISPOSC, ISPSYC, ISSOC, ISSOSC

2 courses: _____ _____

Interdisciplinary

II: Any course beginning with II

1 course: _____

NOTE: Courses fulfilling *PERSPECTIVES* and *INTERDISCIPLINARY* requirements may be at the 100-400 level. All students must complete a minimum of 24 credits at the 100-200 level and a minimum of 8 credits at the 300-400 level to complete the *Integrative Studies Program (ISP)*.

MAJOR REQUIREMENTS (76 cr)

Core courses (20 credits):

- | | | |
|-------------------------------------------------------|-------------------------------------------------|-------------------------------------------------------|
| <input type="checkbox"/> BIO 110 Molecules and Cells* | <input type="checkbox"/> BIO 210 Ecology | <input type="checkbox"/> BIO 212 Cells and Physiology |
| <input type="checkbox"/> BIO 111 Evolution* | <input type="checkbox"/> BIO 211 Genetics | <input type="checkbox"/> BIO 495 Senior Seminar |
| <input type="checkbox"/> BIO 300/400 Elective** | <input type="checkbox"/> BIO 300/400 Elective** | |

*Students must earn grades of C or higher in both BIO 110 & BIO 111 in order to take any 200-level or higher BIO course.

**Choose two 300- or 400-level BIO courses to bring total credits in BIO to 48; BIO 232 can satisfy 4 credits of requirement.

Take ONE course from EACH of the following categories (16 credits):

Animal Diversity

- BIO 333 Invertebrate Zoology
- BIO 334 Vertebrate Zoology
- BIO 335 Ornithology

Plant & Microbial Diversity

- BIO 363 Plant Biology
- BIO 365 Plant Evolution
- BIO 367 Microbial Diversity

Ecology & Evolution

- BIO 343 Ecosystem Ecology
- BIO 345 Animal Behavior
- BIO 347 Plant Phys. Ecology
- BIO 349 Population Genetics

Cell/Molecular/Physiology

- BIO 371 Ecophysiology
- BIO 373 Neurobiology
- BIO 375 Biochemistry
- BIO 376 Molecular Biology
- BIO 377 Immunology
- BIO 379 Comp. Animal Phys.

Allied Discipline Requirements (28 cr):

- INCHEM 111 CHEM 112 CHEM 221 CHEM 222 INPHYS 141 PHYS 142 MATH 141

Note: INCHEM 111 and INPHYS 141 will satisfy Integrative Studies requirements; credits count once. MATH 141 will satisfy the IQL requirement.

BIOLOGY.BS: FOUR-YEAR ADVISING PLAN

FIRST YEAR – FALL SEMESTER

- BIO 110: Molecules & Cells (4 cr)
- INCHEM 111: Gen Chem I* (4 cr)
- ITW or other ISP requirement (4 cr)
- ISP requirement (4 cr)

16 credits

FIRST-YEAR – SPRING SEMESTER

- BIO 111: Evolution (4 cr)
- CHEM 112: Gen Chem II (4 cr)
- MATH 141: Intro Statistics (4 cr)**
- ITW (if not taken in the fall) or other ISP requirement(4 cr)

16 credits

SECOND YEAR – FALL SEMESTER

- BIO 210: Ecology (4 cr)
- CHEM 221: Organic Chem I (4 cr)
- ISP requirement (4 cr)
- Elective (4 cr)

16 credits

SECOND YEAR – SPRING SEMESTER

- BIO 211: Genetics (4 cr)
- BIO 212: Cells & Physiology (4 cr)
- CHEM 222: Organic Chem II (4 cr)
- ISP requirement (4 cr)

16 credits

THIRD YEAR – FALL SEMESTER

- BIO 300-level requirement (4 cr)
- BIO 300-level requirement (4 cr)
- INPHYS 141 College Physics I* (4 cr)
- ISP requirement (4 cr)

16 credits

THIRD YEAR – SPRING SEMESTER

- BIO 300-level requirement (4 cr)
- PHYS 142: College Physics II (4 cr)
- ISP requirement (4 cr)
- ISP requirement (4 cr)

16 credits

FOURTH YEAR – FALL SEMESTER

- BIO 300-level requirement (4 cr)
- BIO 495 Senior Seminar (4 cr)
- ISP requirement (4 cr)
- Elective (4 cr)

16 credits

FOURTH YEAR – SPRING SEMESTER

- BIO 300/400-level elective (4 cr)
- BIO 300/400-level elective (4 cr)
- ISP requirement (4 cr)

12 credits

Total = 124 credits

*INCHEM 111 and INPHYS 141 will fulfill Integrative Studies Natural Science (IN) requirements.

**Math 141 fulfills the IQL Foundations requirement in the Integrative Studies Program (ISP).