

**KEENE STATE COLLEGE
BACHELOR OF SCIENCE
BIOLOGY**

official requirements of the degree, found in the Keene State College catalog. This planning sheet is for advising purposes only.

Name: _____ Student I.D.# _____

Institution(s) Attended: _____ Credits: _____

Update: _____ =

I. **GENERAL EDUCATION** 42 crs. minimum

A. **English Language Competence**: ENG 101 is required of all students.

ENG 101: _____

B. **Arts & Humanities**: A minimum of five courses totaling at least 15 credits as follows:

One course in Literature _____

Any English course other than Eng 101, 202, 203, 204, 205, 301, 302, 303, 310, 311, 382.

FR 340 or FR, GER or SP 498 are acceptable when topics focus on French, German or Spanish literature.

HIST _____ ART, COMM, FILM, MU or TAD _____

(for teacher certification, a U.S. History course is required)

Two courses from Arts & Humanities disciplines: AMST, ART, COMM, FILM, ENG, FR, GER, HIST, JRN, ML, MU, PHIL, SP or TAD. One course may be an interdisciplinary course (designated IDAH).

C. **Social Sciences**: A minimum of four courses totaling at least 12 credits in **three** or more of the Social Science disciplines: ECON, GEOG, POSC, PSYC, SOC. One course may be an approved interdisciplinary course (designated IDSS). **(for teacher certification, a geography course is required)**

D. **Sciences/Math**: A minimum of four courses totaling at least 12 credits as follows: One course in BIOLOGY. One course in a PHYSICAL SCIENCE (ASTR, CHEM, GEOL, MET, PHYS). Two courses from Sciences/Math disciplines: ASTR, BIO, CHEM, CS, ENST, GEOL, MATH, MET, PHYS or an approved interdisciplinary course (designated IDSM).

BIO _____ PHYSICAL SCIENCE _____

II. **MAJOR REQUIREMENTS** (79-80 credits) *Asterisked courses may apply toward Science/Math Gen. Ed. requirements. Credits count once toward graduation. Complete Bio 151/152 & 153/154 in the first year.

A. **Introductory Sequence** 8 crs.

*BIO 151/152: Life: Diversity/Lab	___	3/1
*BIO 153/154: Life: Processes/Lab	___	3/1

Sophomore Core Courses (16 - 17 crs.)

BIO 251: Genetics	___	3
BIO 252: Ecology and Evolution	___	3
BIO 254: Cell Biology	___	3

One from the Following

BIO 232/233: Human Anat. & Physiology II/lab	___	4
BIO 253: Physiology of Plants and Animals	___	3

Two from the Following: 4 crs.

BIO 255: Experimental Genetics	___	2
BIO 256: Experimental Ecology & Evolution	___	2
BIO 257: Experimental Physiology	___	2

Choose ONE of the following courses or course pairs: 5 crs

BIO 405: Molecular Biology	___	5	
BIO 408: Developmental Biology	___	5	
BIO 409: Neurobiology	___	5	
BIO 451: Population Ecology	___	3	and BIO 456: Research Methods ___ 2
BIO 452: Community & Ecosystem Ecology	___	3	and BIO 456: Research Methods ___ 2
BIO 454: Ecological Physiology	___	3	and BIO 456: Research Methods ___ 2
BIO 455: Comparative Animal Physiology	___	3	and BIO 456: Research Methods ___ 2
___	___	2	

B. **Biology Electives:** minimum of 8 credits at 300-level or higher, to bring total Biology credits to 48

___ ___:	_____	___	___	_____	___	___	
___ ___:	_____	___	___	___ ___:	_____	___	___

C. **Related Science/Math Courses:** Complete Intro Chemistry sequence in the first year.

*CHEM 111: General Chemistry I	___	3	*PHYS 141: College Physics I	___	4
*CHEM 115: Exp. General Chemistry I	___	1	*PHYS 142: College Physics II	___	4
*CHEM 112: General Chemistry II	___	3	*MATH 141: Introductory Statistics	___	3
*CHEM 116: Experimental General Chem. II	___	1	*MATH 151: Calculus I	___	4
CHEM 221/225: Organic Chemistry I/lab	___	3/1			
CHEM 222/226: Organic Chemistry II/lab	___	3/1			

III. **ELECTIVES:**

Pick additional courses of your choice to bring your total number of credits earned to 126. If you wish to use transfer credits toward major/minor requirements you must use the Course Substitution process. Contact the Academic and Career Advising Center for more information.

FOR TEACHER CERTIFICATION: Courses selected within the General Education requirements must include a U.S. history course, a geography course, and GEOL 201.

Orientation

ESEC 100: Intro to Teaching	___	_1_
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Learners

*ESEC 150: Development, Exceptionality and Learning I	___	_3_
ESEC 250: Development, Exceptionality and Learning II	___	_3_

Fundamentals

*ESEC 282: Literacy in Content Areas	___	_3_
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Settings

Methodology

ESEC 385: Methods: Secondary	___	_3_
ESEC 386: Methods: Field Experience	___	_3_

Systems

ESEC 450: Seminar: Ed. Principles	___	_3_
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Practice

ESEC 460: Student Teaching	___	_12_
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The following course is highly recommended

Pedagogy

ESEC 387: Creating Social Context for		
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* Courses marked with an asterisk require a minimum of one to three hours of field work in school or service learning.