

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, 208, 301, 302, 303, 304, 308, 312.

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 US 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 (WS 201\* or an IDAH course).

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 (WS 201\* or an IDSS course). **(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 (IDSM). **(For teacher certification, GEOL 201 is required.)**

BIO \_\_\_\_\_ PHYSICAL SCIENCE \_\_\_\_\_

\*WS 201 may be used only once, to fulfill either an Arts & Humanities or Social Sciences General Education requirement.

\*\*See General Education eligible requirements for the major on back.

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

("C" or better required to progress to upper level courses)

**Junior/Senior Core Courses** (7 cr.)

BIO 401: Biochemistry	___	3
BIO 403: Experimental Biochemistry	___	2
BIO 495: Biology Seminar	___	2

**Sophomore Core Courses** (16 - 17 crs.)

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

**Organismal Courses: Choose One** (4 crs.)

BIO 322: Flowering Plant Biology	___	4
BIO 333: Invertebrate Zoology	___	4
BIO 334: Vertebrate Zoology	___	4
BIO 351: Ornithology	___	4
BIO 352: Entomology	___	4
BIO 365: Plant Evolution	___	4
BIO 415: Microbial Diversity	___	4

**One from the Following** (3-4 crs.)

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	<b>and</b>
BIO 452: Community & Ecosystem Ecology	___	3	<b>and</b>
BIO 454: Ecological Physiology	___	3	<b>and</b>
BIO 455: Comparative Animal Physiology	___	3	<b>and</b>
		2	
			BIO 456: Research Methods
			___
			2
			BIO 456: Research Methods
			___
			2
			BIO 456: Research Methods
			___
			2

B. **Biology Electives:** minimum of 7-8 credits at 300-level or higher, to bring total Biology credits to 48

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\_\_\_\_\_

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

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

III. **ELECTIVES:**

Pick additional courses of your choice to bring your total number of credits earned to 126. Students interested in environmental biology should include the following: CHEM 352/356 and GEOL 201 and 202.

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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**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**

\*\* Courses marked with an asterisk require a minimum of one to three hours of field work in school or service learning.