

# Department of Biology

Major: B.S. in Biology (non-teaching)

Specialization: General Biology

Central Connecticut State University

Name: \_\_\_\_\_ ID# \_\_\_\_\_

Advisor: \_\_\_\_\_

Effective: Fall 2017

## General Education

### Study Area I -

**Arts and Humanities** (9 cr.)<sup>a</sup>

- Lit.[L] \_\_\_\_\_ (3)
- \_\_\_\_\_ ( )
- \_\_\_\_\_ ( )

### Study Area II -

**Social Sciences** (9 cr.)<sup>a</sup>

- HIST \_\_\_\_\_ (3)
- \_\_\_\_\_ ( )
- \_\_\_\_\_ ( )

### Study Area III -

**Behavioral Sciences** (6 cr.)

- \_\_\_\_\_ ( )
- \_\_\_\_\_ ( )

### Study Area IV -

**Natural Sciences** (6-7 cr.)

- Related science course<sup>g</sup>
- Related science course<sup>g</sup>

**Skill Area I - Comm. Skills** (6 cr.)

- ENG 110 or 105<sup>b</sup> (3)
- \_\_\_\_\_ ( )

**Skill Area II - Mathematics** (6 cr.)

- MATH 124<sup>e</sup>; or 115 and 125<sup>e</sup>; or 152<sup>f</sup> (4-6)
- \_\_\_\_\_ ( )

**Skill Area III - Foreign Language Proficiency** (0-6 cr.)

\_\_\_\_ 3 sequential years of one foreign language at the high school level, or

\_\_\_\_ passing the foreign language exam, or

\_\_\_\_ completion of a 112 or 114 foreign language course, or

\_\_\_\_ completion of a foreign language course at a level higher than 112 or 114, or

\_\_\_\_ demonstration of native proficiency in a language other than English.

**Skill Area IV - University Req.** (2-3 cr.)

- \_\_\_\_\_ ( )

## Major (32 credits)

- BIO 121 \_\_\_\_\_ (4)
- BIO 122 \_\_\_\_\_ (4)
- BIO 200 \_\_\_\_\_ (4)
- BIO 290 \_\_\_\_\_ (2)
- BIO 390 or 391 \_\_\_\_\_ (1-6)

Electives: \_\_\_\_\_ ( )

Additional 200-level or higher BIO or BMS<sup>c</sup> electives approved for the major to complete 32 cr in the major (except BIO 211)

- \_\_\_\_\_ ( )
- \_\_\_\_\_ ( )
- \_\_\_\_\_ ( )
- \_\_\_\_\_ ( )
- \_\_\_\_\_ ( )
- \_\_\_\_\_ ( )
- \_\_\_\_\_ ( )

## Related Science Courses (28-30 credits)

- CHEM 161 and 162 (4)
- CHEM 210 and 211<sup>i</sup> (4)
- CHEM 200<sup>h</sup> or 260<sup>h</sup> or 354 or 212 (3)
- MATH 124<sup>e</sup>; or 115 and 125<sup>e</sup>; or 152<sup>f</sup> (4-6)
- PHYS 121 and 122, or PHYS 125 and 126 (8)

Portfolio requirement

## Graduation Requirements

- Six credits designated "International" [I]
- First Year Experience requirement

Free electives (and/or courses in minor<sup>d</sup>) to complete the required 122 total credits of study

- \_\_\_\_\_ ( )
- \_\_\_\_\_ ( )
- \_\_\_\_\_ ( )
- \_\_\_\_\_ ( )
- \_\_\_\_\_ ( )
- \_\_\_\_\_ ( )
- \_\_\_\_\_ ( )
- \_\_\_\_\_ ( )
- \_\_\_\_\_ ( )
- \_\_\_\_\_ ( )

**Residency requirements:** A minimum of 30 cr. at CCSU with 15 cr. in the major and 9 cr. in the minor or concentration. Eligibility for high honors requires the student to earn 62 credits in residence at CCSU.

<sup>a</sup> No more than 6 cr. from any one discipline

<sup>b</sup> Students not completing ENG 110 prior to earning 61 cr. are required to take both ENG 110 and ENG 202.

<sup>c</sup> Please note that some upper-level BMS courses require BMS 201 which can count as an elective in the Biology major

<sup>d</sup> A minor is not required, but it is an option. Consult with your advisor.

<sup>e</sup> Prerequisites for PHY 121

<sup>f</sup> Prerequisite for PHYS 125

<sup>g</sup> Related science courses include CHEM 161/162 and PHYS 121&122 (or Phys 125& 126).

<sup>h</sup> CHEM 201 (lab) can be taken as an elective with either CHEM 200 or CHEM 260

<sup>i</sup> Students who are planning a healthcare career should also consider taking CHEM 212/213. Consult your advisor.

CENTRAL CONNECTICUT STATE UNIVERSITY  
Department of Biology

PLAN OF STUDY

**B.S. Biology (non-teaching): Specialization in General Biology**

REQUIREMENTS: The B.S. Biology (non-teaching): Specialization in General Biology requires a minimum of 32 credits in biology including BIO 121, 122, 200, 290, 390<sup>a</sup> or 391<sup>a</sup>, and 16-18 cr. chosen from 200-level or higher BIO and/or BMS courses<sup>b</sup> approved for the major (except Bio 211). In addition, the student must take MATH 124, or 115 and 125; or 152<sup>c,d</sup>; CHEM 161/162<sup>c</sup>, 210/211, and 200 or 260; and PHYS 121<sup>d</sup> and 122, or PHYS 125<sup>d</sup> and 126; and maintain a student portfolio<sup>e</sup>. Completion of a minor is not required.

While there are numerous ways to complete this B.S program within a four-year period, one possible plan is shown below as a model. As early as possible, each student electing this major should work with a faculty advisor to arrange an individual plan of study.

SAMPLE PLAN OF STUDY

FALL SEMESTER			SPRING SEMESTER		
Course #	Title	Credits	Course #	Title	Credits
<b>FIRST YEAR</b>					
BIO 121	<i>General Biology I</i>	4	BIO 122	<i>General Biology II</i>	4
ENG 110 or 105	<i>Composition<sup>g</sup></i>	3	MATH 124	<i>Applied Calculus with Trig<sup>c,d</sup></i>	4
PE 144	<i>Fitness/Wellness Ventures</i>	2	Gen Ed	General Education Electives	9
Gen Ed	General Education Electives	6			17
		<u>15<sup>f</sup></u>			
<b>SECOND YEAR</b>					
BIO 200	<i>Integrative Biology</i>	4	BIO	200-level or higher elective <sup>b</sup>	6-8
BIO 290	<i>Biology Research Experience I</i>	2	Chem 200	<i>Fdns of Analytic Chemistry</i>	3
CHEM 161/162	<i>General Chemistry<sup>c</sup></i>	4	or Chem 260 <sup>e</sup>	<i>Fdns of Inorganic Chemistry</i>	
Gen Ed	General Education Electives	6	Gen Ed	General Education Electives	6
		<u>16</u>			15-17
<b>THIRD YEAR</b>					
BIO	200-level or higher elective <sup>b</sup>	3-4	BIO	200-level or higher elective <sup>b</sup>	3-4
PHYS 121	<i>General Physics I<sup>d</sup></i>	4	PHYS 122	<i>General Physics II</i>	4
CHEM 210/211	<i>Fdns of Organic Chemistry</i>	4	Gen Ed	General Education Elective	3
Gen Ed	General Education Elective	3	Free Elective		3
BIO 390	<i>Biology Research Experience II</i>	1-2			13-14
or BIO 391	<i>Internship in Biology</i>				
		<u>15-17</u>			
<b>FOURTH YEAR</b>					
BIO	200-level or higher elective <sup>b</sup>	3-4	BIO	200-level or higher elective <sup>b</sup>	3-4
Free Electives		12	Free Electives		12
		<u>15-16</u>			15-16

<sup>a</sup>BIO 390 (Biology Research Experience II) and BIO 391 (Internship in Biology) give each student the opportunity to work with an individual faculty member on a research, library, teaching, or internship project. Students are encouraged to discuss research opportunities with a selected faculty member at any point in their program. While the required (1 cr.) project may be completed as late as the senior year, more in-depth research experiences, which may culminate in an undergraduate thesis (BIO 499), may demand an earlier start.

<sup>b</sup>General Biology Specialization students work with a faculty advisor to select an additional 16-18 credits of 200-level or higher BIO and/or BMS electives approved for the major to complete 32 credits in the minor (except BIO 211). Please note some upper-level BMS courses require BMS 201 which can count as an elective in the Biology major.

<sup>c</sup>MATH 101(or the Mathematics Placement Exam) is a prerequisite for CHEM 161/162 and for MATH 115, 124, and 125.

<sup>d</sup>Either MATH 124 (4 cr.) or both MATH 115 and 125 are prerequisites for PHYS 121. MATH 152 is the prerequisite for PHYS 125. Math 152 is recommended for students wishing to take more advanced math classes. Other appropriate courses in Skill Area II may be substituted with permission of the Biology Chair.

<sup>e</sup>CHEM 354 and CHEM 212 can also fill this requirement.

<sup>f</sup>First-year students must take an FYE introductory course in their first semester.

<sup>g</sup>Students not completing Eng 110 or 105 prior to earning 61 cr. Are also required to take ENG 202.