

# Central Connecticut State University

1615 Stanley Street  
New Britain, Connecticut 06053-4010

Effective Fall 2006

Address: \_\_\_\_\_  
\_\_\_\_\_

Name: \_\_\_\_\_

I.D.# \_\_\_\_\_

email \_\_\_\_\_

# BS in Biomolecular Sciences

## Specialization: Biotechnology Program

### General Education

#### Study Area I - Arts and Humanities (9)

<input type="checkbox"/>	Literature	3
<input type="checkbox"/>		3
<input type="checkbox"/>		3

#### Study Area II - Social Sciences (9)

<input type="checkbox"/>	HIST	3
<input type="checkbox"/>		3
<input type="checkbox"/>		3

#### Study Area III - Behavioral Sciences (6)

<input type="checkbox"/>		3
<input type="checkbox"/>		3

#### Study Area IV - Natural Sciences (6-7)

<input checked="" type="checkbox"/>	CHEM 161/162 <sup>b</sup>	4
<input checked="" type="checkbox"/>	CHEM 163/164	4

#### Skill Area I - Communication Skills (6)

<input type="checkbox"/>	ENG 110 <sup>a</sup>	3
<input type="checkbox"/>		3

#### Skill Area II - Mathematical (6)

<input checked="" type="checkbox"/>	MATH 119 <sup>b, c</sup>	4
<input checked="" type="checkbox"/>	MATH 125 <sup>b</sup> or 152 <sup>c</sup>	3 or 4

#### Skill Area III - Foreign Language

<input type="checkbox"/>	3 sequential years of one foreign language at the high school level
<input type="checkbox"/>	passed the foreign language exam.
<input type="checkbox"/>	completed 112 or 114 foreign language courses
<input type="checkbox"/>	completed above 112 or 114 foreign language course demonstration of native proficiency in a language other than English

#### Skill Area IV - Univ. Requirements (2-3)

<input type="checkbox"/>	PE 144 Fitness/Wellness	2
--------------------------	-------------------------	---

### Major Requirements (35 cr)

#### Core Requirements

<input type="checkbox"/>	BMS 102 & 103	Intro to BMS w/Lab	4
<input type="checkbox"/>	BMS 201	Principles of Cell & Mol Biol	4
<input type="checkbox"/>	BMS 190 & 290	Intro to Research I & II	1
<input type="checkbox"/>	BMS 390	Independent Research in BMS	1
<input type="checkbox"/>	BMS 491	Advanced Ind Research	1
<input type="checkbox"/>	BMS 306	Genetics	4
<input type="checkbox"/>	BMS 311	Cell Biology	4
<input type="checkbox"/>	BMS 316	Microbiology	4
<input type="checkbox"/>	BMS 495	Molecular Biology	4

#### Biomolecular Electives\*

<input type="checkbox"/>	BMS	
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		

\* BMS 320, 391, 415, 416, 490, 491, 496/497, 499, 562, 570; CHEM 454/455, 456, 458; or BIO 449/450.

#### Portfolio Requirement

met:  yes

#### Related Requirements

<input type="checkbox"/>	CHEM 161/162 <sup>b</sup>	General Chem I w/ Lab	4
<input type="checkbox"/>	CHEM 163/164	General Chem II w/ Lab	4
<input type="checkbox"/>	CHEM 210/211	Organic Chem I w/ Lab	4
<input type="checkbox"/>	CHEM 212/213	Organic Chem II w/ Lab	4
<input type="checkbox"/>	MATH 119 <sup>b, c</sup>	Pre-Calc with Trig	4
<input type="checkbox"/>	MATH 125 <sup>b</sup> or 152 <sup>c</sup>	Applied Calc or Calc I	3 or 4
<input type="checkbox"/>	PHYS 121 <sup>c</sup>	General Physics I	4
<input type="checkbox"/>	PHYS 122	General Physics II	4

### Graduation Requirements

#### Six credit designated "international"

met:  yes

#### First Year Experience requirement

met:  yes

#### Electives (to complete the required 122)

<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	

#### Minor (not required)<sup>d</sup>

<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	

**Double-counting restriction:** Of the courses taken in the major and minor/concentration, a total of two courses may be counted to fulfill the Study Areas portion of the general education program.

**Residency requirements:** A minimum of 45 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 cr. in residence at CCSU.

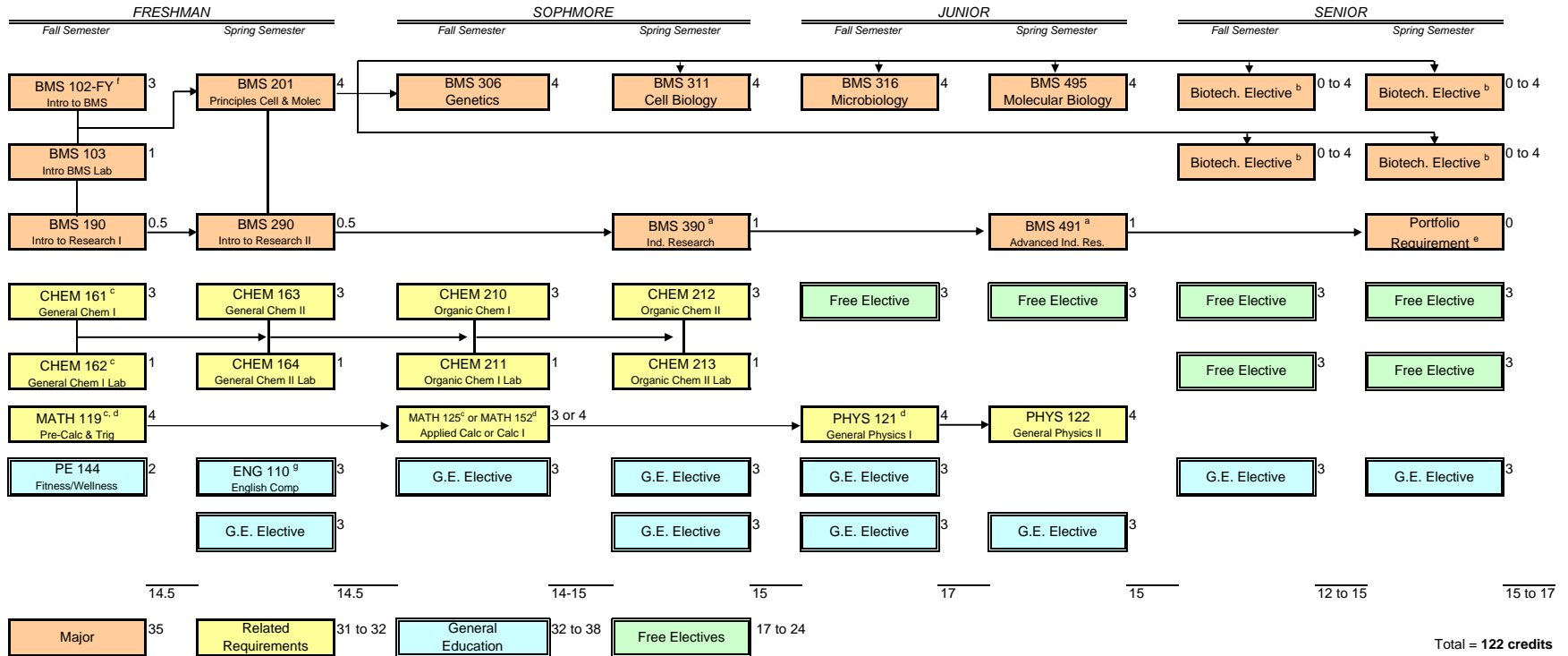
<sup>a</sup> Students not completing ENG 110 prior to earning 61 cr. are required to take both ENG 110 and ENG 202.

<sup>b</sup> MATH 101 or the Mathematics Placement Exam is a prerequisite for CHEM 161/162, and for MATH 119 and 125.

<sup>c</sup> MATH 119 is a prerequisite for PHYS 121. Other appropriate courses may be substituted in Skill Area II if this requirement is already met. MATH 152 is a requirement of the minor in Chemistry.

<sup>d</sup> A minor in Science, B.S., may be elected with a C- or better in related requirement courses CHEM 161/162, 163/164; and PHYS 121, 122.

## Bachelor of Science in Biomolecular Sciences - Biotechnology Specialization



<sup>a</sup> BMS 390 and 491 give each student the opportunity to work with an individual faculty member on a research project. Students are welcomed and encouraged to discuss research opportunities with any faculty member as early as their first semester. While the required (2 cr.) project may be completed as late as the senior year, more in-depth research experiences, which may culminate in an undergraduate thesis (BMS 499), may demand an earlier start.

<sup>b</sup> Biotechnology course electives : BMS 320, 391, 415, 416, 490, 491, 496/497, 499, 500, 516, 519, 562, 570; CHEM 454/455, 456; BIO 449/450. (Pre-requisites may include 300-level BMS and/or CHEM courses.)

<sup>c</sup> MATH 101 or an appropriate score on the Mathematics Placement Exam is a prerequisite for CHEM 161/162 and for MATH 119 and 125.

<sup>d</sup> MATH 119 is a prerequisite for PHYS 121. Other appropriate courses may be substituted in Skill Area II if this requirement is already met. MATH 152 is a requirement of the Minor in Chemistry.

<sup>e</sup> The Portfolio Requirement is described in the Biomolecular Sciences section of the University Catalog.

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

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