

**Central Connecticut State University**  
**School of Engineering, Science, and Technology**

**Degree:** Bachelor of Science  
**Program:** Physics  
**Concentration:** Biomolecular Sciences  
**Effective Term:** Fall 2025

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

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

**General Education: Ways of Understanding:**

**Arts & Humanities (9 credits)**

	Credits	Grade
English Literature	3	

**Social & Behavioral Sciences (12 credits)**

	Credits	Grade
History	3	

**Math & Natural Sciences (9-10 credits)**

	Credits	Grade
CHEM 161 & 162	X	
MATH 152	X	
MATH 221	X	

**General Education: Essential Skills:**

**Written & Oral Communication (6 credits)**

	Credits	Grade
WRT 105 or WRT 110	3	

**World Language (0-6 credits) or Gen Ed Free Elective (3 credits)**

	Credits	Grade
World Language course numbered 112 or 118* or Gen Ed Free Elective	3	

**Thriving in College (2-3 credits)**

	Credits	Grade
CCSU 102, 103, or FYE course**	2-3	

A maximum of 16 credits(4 courses) applied towards Ways of Understanding and Essential Skills requirements may be used to fulfill a major and/or minor requirement.

**International & Equity, Justice, & Inclusion (EJI) Requirements:**

	Credits	Grade
International	3	
International	3	
Equity, Justice, & Inclusion***	3	

Coursework applied toward International & EJI requirements may be used in any other area of general education or program requirements.

**Honors Program:** HON courses can be used to fulfill certain general education requirements. Consult the Honors Program curriculum for details.

**Residency Requirements:** A minimum of 30 credits overall must be completed in residence, with at least 15 credits in the major (at least 12 of which must be at the 300 level or above) and 9 credits in a minor at Central. In residence means attending classes conducted on campus or under supervision of Central.

**Major Requirements (37 credits)**

Requires grade of C- or higher, unless otherwise specified.

	Credits	Grade
PHYS 125 University Physics I	4	
PHYS 126 University Physics II	4	
PHYS 220 Mechanics I	3	
PHYS 250 Intermediate Lab I	1	
PHYS 305 Foundations of Electricity and Magnetism	3	
PHYS 320 Heat and Thermodynamics	3	
PHYS 325 Optics	4	
PHYS 331 Electronics I	3	
PHYS 350 Intermediate Lab II	1	
PHYS 425 Modern Physics	3	
PHYS 450 Advanced Laboratory Techniques	1	
PHYS 460 Seminar in Physics	1	
PHYS 470 Quantum Mechanics	3	
PHYS 471 Quantum Mechanics II	3	

Coursework applied toward Related or Additional requirements may be used in any other area of general education or program requirements.

**Related Requirements (28 credits)**

	Credits	Grade
CHEM 161 General Chemistry	3	
CHEM 162 General Chemistry Laboratory	1	
CHEM 260 Foundations of Inorganic Chemistry	3	
CHEM 201 Foundations of Analytical Chemistry Lab	1	
CHEM 210 Foundations of Organic Chemistry	3	
CHEM 211 Foundations of Organic Chemistry Lab	1	
CHEM 212 Organic Synthesis	3	
CHEM 213 Organic Synthesis Laboratory	1	
MATH 152 Calculus I	4	
MATH 221 Calculus II	4	
MATH 222 Calculus III	4	

**Biomolecular Sciences Concentration (20.5 credits)**

	Credits	Grade
BMS 102 Introduction to Biomolecular Science	3	
BMS 103 Introduction to Biomolecular Science Lab	1	
BMS 190 Introduction to Research I	0.5	
BMS 201 Principles of Cell and Molecular Biology	4	
BMS 311 Cell Biology	4	
BMS 307 Genomics	4	
<b>4 credits in BMS or BIO Electives (200 level or higher)</b>	<b>4</b>	

**Is a Minor Required with this Major?**

Yes       No

Free Electives may be used, as needed, to reach the total credits required for the degree when all other degree requirements have been met.

**Total Credits Required for Degree: 120**

\* Students with 3 years, or more, of one world language at the high school level, a passing score on a world language placement exam, or native proficiency in a language other than English will have the World Language requirement waived and can satisfy this requirement with any general education free elective course (3cr).

\*\* Transfer students with 24 or more transfer credits at the time of admission can satisfy this requirement with any general education free elective (3cr).

\*\*\* Waived for transfer students with 50 or more transfer credits at the time of admission.