

# BIOTECHNOLOGY

## Joint Degree (City College)

### A.S. Degree\*

<sup>1</sup> Students with English Proficiency Index (EPI) of 0-49 enroll in corequisite course ENG 100. Students with EPI of 50-64 enroll in corequisite course ENG 110. Students with EPI of at least 65 (or other English proficiency qualification) enroll in ENG 111. Students with ESL need should take appropriate ESL course/s (Sequence: ESL 01 > 02 > 03 > 09) before enrolling in ENG 110.

<sup>2</sup> Students are eligible to enroll in MTH 28 if they have successfully completed an elementary algebra math intervention at a CUNY college (e.g., Math Proficiency Workshop, CUNY Start Math, Math Start), or if they are CUNY Math proficient AND had the appropriate math background in high school. See the Mathematics Course Placement page in the [College Catalog](#).

Students not eligible for MTH 28 or higher courses enroll in corequisite course MTH 28.5. However, note that students with Math Proficiency Index of 39 or lower are strongly encouraged to enroll in Math Start/CUNY Start.

Students who place out of MTH 28 and/or MTH 30 will take free elective course(s) to complete 60 total degree credits.

This program has received a waiver to require students to complete specific STEM/STEM Variant courses in Required Area B, Required Area C and Flexible Area E. If students transferring into this program complete different courses in these areas, they will be certified as having completed the Common Core requirements, but it may not be possible for them to finish their degree within the regular number (60) of credits.

<sup>3</sup> See [Common Core Pathways course listing](#).

<sup>4</sup> It is highly recommended that students take FYS 11 in their first or second semester prior to earning 24 credits. This requirement will be waived for students who have earned 24 or more degree or equated credits at BCC. Students transferring into the program with 24 or more degree or equated credits will also be exempt from FYS 11 and only required to complete 60 credits to graduate.

<sup>5</sup> Only students who place out of MTH 28 will have free electives. Students who place out of MTH 28 can use one elective credit toward CHM 31. Students who do not place out of MTH 28 should select PHY 11 so as not to exceed the 60-credit limit for the program.

**\*Note: In order to graduate, students must meet all requirements, including, completing all required courses with appropriate grades, completing two writing intensive courses, and earning a minimum GPA of 2.0, and [applying for graduation](#).**

#### SEMESTER I Freshman

	Prerequisite/Corequisite	
<input type="checkbox"/> <b>Required Core A:</b> English Composition I - ENG 100 Integrated Reading and Writing <b>OR</b> ENG 110 Fundamentals of Writing and Rhetoric <b>OR</b> ENG 111 Writing and Rhetoric <sup>1</sup>	See footnote <sup>1</sup>	3
<input type="checkbox"/> <b>Required Core B:</b> MTH 28 College Algebra and Elementary Trigonometry <b>OR</b> MTH 28.5 College Algebra and Elementary Trigonometry Corequisite <sup>2</sup>	See footnote <sup>2</sup>	3
<input type="checkbox"/> <b>Required Core C:</b> BIO 120 Biology I ( <b>Option Requirement</b> )	CUNY English Proficiency; or ENG 100 or 110 if required; and CUNY Math Proficiency; or MTH 23.5 or 28.5, if required	4
<input type="checkbox"/> <b>Flexible Core A-D:</b> Select <b>ONE</b> course from any Flexible Core Area <sup>3</sup>	<a href="#">See catalog</a> <sup>3</sup>	3
<b>Subtotal:</b>		<b>13</b>

#### SEMESTER II Freshman

	Prerequisite/Corequisite	
<input type="checkbox"/> <b>Required Core A:</b> ENG 112 Composition and Rhetoric II <b>OR</b> ENG 113 Writing About Literature <b>OR</b> ENG 114 Written Composition and Prose Fiction <b>OR</b> ENG 115 Written Composition and Drama <b>OR</b> ENG 116 Written Composition and Poetry	ENG 100, ENG 110, or ENG 111	3
<input type="checkbox"/> <b>Required Core C:</b> CHM 11 General College Chemistry I	MTH 28 or 28.5 Corerequisite: ENG 110, if required	4
<input type="checkbox"/> <b>Flexible Core E:</b> BIO 121 Biology II ( <b>Option Requirement</b> )	BIO 120	4
<input type="checkbox"/> <b>Flexible Core E:</b> MTH 30 Pre-Calculus Mathematics	MTH 28 or equivalent	4
<b>Subtotal:</b>		<b>15</b>

#### SEMESTER III Sophomore

	Prerequisite/Corequisite	
<input type="checkbox"/> <b>Flexible Core E:</b> CHM 12 General College Chemistry II	CHM 11	4
<input type="checkbox"/> BIO 55 Genetics	BIO 12	3
<input type="checkbox"/> MTH 31 Analytic Geometry and Calculus I	MTH 30 or equivalent; CUNY English Proficiency or ENG 100 or 110, if required	4
<input type="checkbox"/> <b>Flexible Core A-D:</b> Select <b>ONE</b> course from a different Flexible Core Area <sup>3</sup>	<a href="#">See catalog</a> <sup>3</sup>	3
<input type="checkbox"/> <b>Flexible Core A-D:</b> Select <b>ONE</b> course from a different Flexible Core Area <sup>3</sup>	<a href="#">See catalog</a> <sup>3</sup>	3
<b>Subtotal:</b>		<b>17</b>

#### SEMESTER IV Sophomore

	Prerequisite/Corequisite	
<input type="checkbox"/> BIO 56 Cell and Molecular Biology with an Intro to Biotechnology ( <b>Major Requirement</b> )	BIO 55	4
<input type="checkbox"/> CHM 31 Organic Chemistry I <b>OR</b> PHY 11 College Physics I <sup>5</sup>	<a href="#">See catalog</a>	4-5
<input type="checkbox"/> MTH 37 Elements of Calculus and Statistics	MTH 31 or placement by the department	4
<input type="checkbox"/> <b>Flexible Core A-D:</b> Select <b>ONE</b> course from a different Flexible Core Area <sup>3</sup>	<a href="#">See catalog</a> <sup>3</sup>	3
<b>Subtotal:</b>		<b>15-16<sup>5</sup></b>

**TOTAL: 60**