

# BIOLOGY - ASSOCIATE OF SCIENCE DEGREE (AS)

Explore More About This Program: <https://cwi.edu/program/biology>

## Degree Quick Facts

- **Instructional School:** Science, Technology, and Math
- **Department:** Biological Sciences

- **Program Code:** BIOL.AS
  - **Program Emphasis Option Codes:** BIOL-HB.AS, BIOL-MMBS.AS, BIOLNR.AS
- **Program Type:** Academic Transfer
- **Available Fully Online:** No
- **Eligible for Federal Financial Aid:** Yes

NOTE: Courses required for this program *may* have an additional fee; more information can be found on the [Special Course Fees](#) web page.

## Degree Requirements

Course	Course Title	Min Credits
<b>General Education Requirements</b>		
CWI 101	Connecting With Ideas	3
<u>Global Perspectives course</u>		3
ENGL 101	Writing and Rhetoric I (GEM 1)	3
ENGL 102	Writing and Rhetoric II (GEM 1)	3
<u>GEM 2 - Oral Communication course</u>		3
Select <b>one</b> of the following courses (GEM 3):		3-5
MATH 143	Precalculus I: Algebra	
or MATH 147	Precalculus	
or MATH 160	Survey of Calculus	
or MATH 170	Calculus I	
BIOL 111	Biology I (GEM 4)	3
BIOL 111L	Biology I Lab (GEM 4)	1
Select <b>one</b> of the following options (GEM 4):		4
CHEM 101 & 101L	Introduction to Chemistry and Introduction to Chemistry Lab <sup>2</sup>	
CHEM 111 & 111L	General Chemistry I and General Chemistry I Lab <sup>2</sup>	
<u>GEM 5 - Humanistic &amp; Artistic Ways of Knowing course</u>		3
<u>GEM 5 - Humanistic &amp; Artistic Ways of Knowing course</u> <sup>3</sup>		3
SCIE 102	Ethics in Science (GEM 6) <sup>4</sup>	3
<u>GEM 6 - Social &amp; Behavioral Ways of Knowing course</u> <sup>3</sup>		3
<b>Major Requirements</b>		
BIOL 112	Biology II <sup>5</sup>	3
BIOL 112L	Biology II Lab <sup>5</sup>	1
Select <b>one</b> of the following options:		4
BIOL 113 & 113L	Biology III: Principles of Structure and Function and Biology III: Principles of Structure and Function Lab	
MMBS 260 & 260L	Introduction to Cell Biology and Introduction to Cell Biology Lab	
MMBS 280 & 280L	Genetics and Genetics Lab	
Select <b>one</b> of the following options:		5
CHEM 102 & 102L	Essentials of Organic and Biochemistry and Essentials of Organic and Biochemistry Lab	
CHEM 112 & 112L	General Chemistry II and General Chemistry II Lab	
Complete all courses from one of the emphasis areas listed below (see 'Biology: Major Electives for Emphases') OR select any electives from the 'Biology: Major Electives for General Degree' course list to bring the total credits earned to 60 <sup>6,7,8</sup>		7-9
<b>Minimum Credit Hours Required</b>		<b>60</b>

- <sup>1</sup> Check with the appropriate four-year transfer program to determine if a specific math course may be required at your transfer institution.
- <sup>2</sup> Students who have prior experience with chemistry are strongly encouraged to take the Chemistry Placement exam at the CWI Assessment Center. Passing the Chemistry Placement exam will allow students to register directly into CHEM 111 General Chemistry I.
- <sup>3</sup> Course must come from a different discipline.
- <sup>4</sup> This course fulfills the Ethical Reasoning requirement for an associate degree from CWI.
- <sup>5</sup> BIOL 112 and BIOL 112L are best taken within a semester of completing BIOL 111 and BIOL 111L to ensure greater success.
- <sup>6</sup> To complete an AS focused on **one** emphasis area, complete all of the courses listed under your chosen emphasis on the 'Biology: Major Electives for Emphases' course list below. In order to graduate with a degree that lists your chosen emphasis area, you must select the applicable major. For example, to graduate with an AS that includes an emphasis in Human Biology, students should select 'Biology - Human Biology Emphasis - Associate of Science' as a major.
- <sup>7</sup> To complete a general Biology AS without an emphasis, select courses from the 'Biology: Major Electives for General Degree' course list below to bring the total credits earned to at least 60. See catalog and possible transfer institution for elective options. To determine which elective is appropriate, consult your advisor.
- <sup>8</sup> Students must earn a minimum of 60 credits to graduate. It may be possible for students to complete all required courses for a Biology emphasis and have earned less than 60 credits. In this situation, students must select additional credits from the 'Biology: Major Electives for General Degree' course list to reach a total of at least 60 credits.

## Biology: Major Electives FOR EMPHASES

Course	Course Title	Min Credits
<i>Human Biology Emphasis</i>		<b>8</b>
BIOL 227	Human Anatomy and Physiology I	
BIOL 227L	Human Anatomy and Physiology I Lab	
BIOL 228	Human Anatomy and Physiology II	
BIOL 228L	Human Anatomy and Physiology II Lab	
<i>Cellular, Molecular, and Biomedical Sciences Emphasis</i>		<b>8</b>
MMBS 260	Introduction to Cell Biology <sup>1</sup>	
MMBS 260L	Introduction to Cell Biology Lab <sup>1</sup>	
MMBS 280	Genetics <sup>2</sup>	
MMBS 280L	Genetics Lab <sup>2</sup>	
<i>Natural Resources Emphasis</i>		<b>7</b>
ENVI 260	General Ecology <sup>1</sup>	
ENVI 260L	General Ecology Lab <sup>1</sup>	
ENVI 280L	Field Biology <sup>2</sup>	

<sup>1</sup> This course is only offered in the Fall semester.

<sup>2</sup> This course is only offered in the Spring semester.

## BIOLOGY: MAJOR ELECTIVES FOR GENERAL DEGREE

Course	Course Title	Min Credits
BIOL 104	Professions in Biology	3
BIOL 113	Biology III: Principles of Structure and Function	3
BIOL 113L	Biology III: Principles of Structure and Function Lab	1
BIOL 199	Biology Special Topics	1-5
BIOL 226	Human Anatomy and Physiology I Plus	1
BIOL 227	Human Anatomy and Physiology I	3
BIOL 227L	Human Anatomy and Physiology I Lab	1
BIOL 228	Human Anatomy and Physiology II	3
BIOL 228L	Human Anatomy and Physiology II Lab	1
BIOL 280	Pathophysiology	4
BIOL 293	Biology Internship	1-3
BIOL 296	Biology Independent Study	1-3
BTEC 293	Biotechnology Internship	1-5
CHEM 102	Essentials of Organic and Biochemistry	4
CHEM 102L	Essentials of Organic and Biochemistry Lab	1

CHEM 111	General Chemistry I	3
CHEM 111L	General Chemistry I Lab	1
CHEM 112	General Chemistry II	3
CHEM 112L	General Chemistry II Lab	2
CHEM 293	Chemistry Internship	1-3
CHEM 298	Organic Chemistry I <sup>1</sup>	3
CHEM 298L	Organic Chemistry I Lab <sup>1</sup>	2
ENVI 100	Environmental Science	3
ENVI 100L	Environmental Science Lab	1
ENVI 260	General Ecology <sup>1</sup>	3
ENVI 260L	General Ecology Lab <sup>1</sup>	1
ENVI 280L	Field Biology <sup>2</sup>	3
MATH 144	Precalculus II: Trigonometry	2
MATH 153	Statistical Reasoning	3
MATH 170	Calculus I	5
MATH 175	Calculus II	4
MMBS 106	Making Sense of Microbiotic Me	3
MMBS 111	Introductory Microbiology	3
MMBS 111L	Introductory Microbiology Lab	1
MMBS 260	Introduction to Cell Biology <sup>1</sup>	3
MMBS 260L	Introduction to Cell Biology Lab <sup>1</sup>	1
MMBS 280	Genetics <sup>2</sup>	3
MMBS 280L	Genetics Lab <sup>2</sup>	1
PHYS 100	Survey of Physics	3
PHYS 100L	Survey of Physics Lab	1
PHYS 111	General Physics I	3
PHYS 111L	General Physics I Lab	1
SCIE 200	Vertically Integrated Projects (VIP)	1

<sup>1</sup> This course is only offered in the Fall semester.

<sup>2</sup> This course is only offered in the Spring semester.