

**BS IN BIOLOGY (CELLULAR AND ORGANISMAL BIOLOGY) CURRICULUM  
(154-158 units)**

Institute of Biology

College of Science, University of the Philippines, Diliman

**FIRST YEAR, First Semester**

GE 1 Fil 40 (Wika, Kultura, at Lipunan)	3
GE 2 Kas 1 (Kasaysayan ng Pilipinas at mga Institusyong Pilipino)	3
Math 21 <sup>a</sup> (Elementary Analysis I)	4
Chem 16 (General Chemistry)	3
Chem 16.1 (General Chemistry Lab)	2
Geol 11 (Principles of Geology)	3
PE	(2)
NSTP	(1.5)
<b>18</b>	

**FIRST YEAR, Second Semester**

GE 3 Eng 13 (Writing as Thinking)	3
GE 4 Speech 30 (Public Speaking and Persuasion)	3
Chem 26 (Analytical Chemistry)	3
Chem 26.1 (Analytical Chemistry Lab)	2
Math 22 (Elementary Analysis II)	4
BIO 11 (Fundamentals of Biology I)	3
BIO 11.1 (Fundamentals of Biology I Lab)	2
PE	(2)
NSTP	(1.5)
<b>20</b>	

**SECOND YEAR, First Semester**

GE 5 ARTS 1 (Critical Perspectives in the Arts)	3
Chem 31 (Elementary Organic Chemistry)	3
Chem 31.1 (Elementary Organic Chemistry Lab)	2
Physics 71 (Elementary Physics 1)	4
Physics 71.1 (Elementary Physics 1 Lab)	1
BIO 12 (Fundamentals of Biology II)	3
BIO 12.1 (Fundamentals of Biology II Lab)	2
BIO 100 (Statistical Methods in Biology)	3
PE	(2)
<b>21</b>	

**SECOND YEAR, Second Semester**

GE 6 Philo 1 (Philosophical Analysis)	3
Chem 40 (Elementary Biochemistry)	3
Chem 40.1 (Elementary Biochemistry Lab)	2
BIO 101 (Plant Morphoanatomy)	3
BIO 102 (Comparative Vertebrate Anatomy)	3
BIO 102.1 (Comparative Vertebrate Anatomy Lab)	2
BIO 120 (General Microbiology)	4
PE	(2)
<b>20</b>	

**THIRD YEAR, First Semester**

GE 7 Soc Sci 1 (Foundations of Behavioral Sciences)	3
BIO 122 (Animal Physiology)	3
BIO 122.1 (Animal Physiology Lab)	2
BIO 140 (Fundamentals of Genetics)	3
BIO 140.1 (Fundamentals of Genetics Lab)	2
BIO 150 (Fundamentals of Cellular and Molecular Biology)	3
BIO 150.1 (Fundamentals of Cellular and Molecular Biology Lab)	2
BIO 191 (Systematics and Evolution)	3
<b>21</b>	

**THIRD YEAR, Second Semester**

GE 8 Soc Sci 2 (Social, Economic and Political Thought)	3
GE 9 STS 1 (Science, Technology and Society)/DRMAPS (Disaster Risk Mitigation, Adaptation and Preparedness Strategies)	3
BIO 121 (Plant Physiology)	4
BIO 131 (Plant Developmental Biology)	4
BIO 160 (Fundamentals of Ecology)	3
BIO 160.1 (Fundamentals of Ecology Lab)	2
BIO 200 (Undergraduate Thesis)	1
<b>20</b>	

**FOURTH YEAR, First Semester**

BIO 132 (Animal Developmental Biology)	3
BIO 132.1 (Animal Developmental Biology Lab)	2
BIO 151 (Fundamentals of Immunobiology)	3
BIO 196 (Undergraduate Seminar)	1
BIO 200 (Undergraduate Thesis)	2
Any Taxonomy Elective <sup>b</sup>	4
Biology Specialty Elective <sup>c</sup>	3-5
<b>18-20</b>	

**FOURTH YEAR, Second Semester**

PI 100 (The Life and Works of Jose Rizal)	3
BIO 134 (General Animal Histology)	3
BIO 142 (Fundamentals of Cytogenetics)	3
BIO 200 (Undergraduate Thesis)	1
Free Elective <sup>d</sup>	3
Science Elective <sup>e</sup>	3-5
<b>16-18</b>	

<sup>a</sup>All students required to take Math 21 must have passed any of the following: (1) Pre-Calculus from the STEM or equivalent strand of K-12; (2) the Validation Examination for Math 20 (Pre-Calculus: Functions and their Graphs) administered by the UPD Institute of Mathematics; or (3) Math 20 as a non-credit course

<sup>b</sup>Any of the following: BIO 111 (Phycology), BIO 112 (Mycology), BIO 114 (Mosses, Hepatics and Ferns), BIO 115 (Taxonomy of Angiosperms), BIO 116 (Invertebrate Biology), BIO 117 (Vertebrate Biology), BIO 118 (Insect Biology), BIO 119 (Fish Biology), BIO 172 (Systematics and Ecology of Animal Parasites)

<sup>c</sup>Any of the following: BIO 111 (Phycology), BIO 112 (Mycology), BIO 113 (Fundamentals of Virology), BIO 114 (Mosses, Hepatics and Ferns), BIO 115 (Taxonomy of Angiosperms), BIO 116 (Invertebrate Biology), BIO 117 (Vertebrate Biology), BIO 118 (Insect Biology), BIO 119 (Fish Biology), BIO 123 (Fundamentals of Microbial Physiology), BIO 125 (Medical Microbiology), BIO 141 (Fundamentals of Microbial Genetics), BIO 161 (Field Biology), BIO 162 (Limnology), BIO 163 (Fundamentals of Microbial Ecology), BIO 164 (Biodiversity and Conservation Biology), BIO 165 (Biogeography), BIO 166 (Restoration Ecology), BIO 170 (Animal Behavior), BIO 171 (General Parasitology), BIO 172 (Systematics and Ecology of Animal Parasites), BIO 193 (Evolutionary Ecology)

<sup>d</sup>Any course except College of Science GE courses

<sup>e</sup>Any of the following: Math 23 (Elementary Analysis III), Physics 72 (Elementary Physics II), Physics 72.1 (Elementary Physics II Laboratory), MS 102 (The Marine Sciences), MBB 100 (Introduction to Scientific Writing in MBB), Psych 101 (Introduction to Psychology), CS 197 (Special Topics in Computer Science), Stat 102 (Intermediate Statistical Methods for Research), all courses listed in <sup>c</sup>

As a requirement for graduation, all students must take (6) units in one of the National Service Training Program (NSTP) components: Civic Welfare Training Service (CWTS), Literacy Training Service (LTS), and Reserved Officers' Training Corps Military Science (ROTC Mil Sci). These are offered by UPD.

The University regularly reviews course curricula and may revise them. Students admitted into this program shall follow the existing curriculum until such time that a new curriculum replacing it has been duly approved for implementation. All courses prescribed and taken under this existing curriculum shall be credited under the new curriculum.

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Chem 16.1 (General Chemistry Lab)	2
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PE	(2)
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<b>18</b>	

**FIRST YEAR, Second Semester**

GE 3 Eng 13 (Writing as Thinking)	3
GE 4 Speech 30 (Public Speaking and Persuasion)	3
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**SECOND YEAR, First Semester**

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Physics 71.1 (Elementary Physics 1 Lab)	1
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BIO 12.1 (Fundamentals of Biology II Lab)	2
BIO 100 (Statistical Methods in Biology)	3
PE	(2)
<b>21</b>	

**SECOND YEAR, Second Semester**

GE 6 Philo 1 (Philosophical Analysis)	3
Chem 40 (Elementary Biochemistry)	3
Chem 40.1 (Elementary Biochemistry Lab)	2
BIO 101 (Plant Morphoanatomy)	3
BIO 102 (Comparative Vertebrate Anatomy)	3
BIO 102.1 (Comparative Vertebrate Anatomy Lab)	2
BIO 120 (General Microbiology)	4
PE	(2)
<b>20</b>	

**THIRD YEAR, First Semester**

GE 7 Soc Sci 1 (Foundations of Behavioral Sciences)	3
BIO 121 (Plant Physiology)/(BIO 122 (Animal Physiology) & BIO 122.1 (Animal Physiology Lab)	4-5
BIO 140 (Fundamentals of Genetics)	3
BIO 140.1 (Fundamentals of Genetics Lab)	2
BIO 150 (Fundamentals of Cellular and Molecular Biology)	3
BIO 150.1 (Fundamentals of Cellular and Molecular Biology Lab)	2
BIO 191 (Systematics and Evolution)	3
<b>20-21</b>	

**THIRD YEAR, Second Semester**

GE 8 Soc Sci 2 (Social, Economic and Political Thought)	3
GE 9 STS 1 (Science, Technology and Society)/DRMAPS (Disaster Risk Mitigation, Adaptation and Preparedness Strategies)	3
BIO 111 (Phycology)/BIO 112 (Mycology)/BIO 114 (Mosses, Hepatics and Ferns)/BIO 115 (Taxonomy of Angiosperms)	4
BIO 131 (Plant Developmental Biology)/ BIO 132 (Animal Developmental Biology) & BIO 132.1 (Animal Developmental Biology Lab)	4-5
BIO 160 (Fundamentals of Ecology)	3
BIO 160.1 (Fundamentals of Ecology Lab)	2
BIO 200 (Undergraduate Thesis)	1
<b>20-21</b>	

**MIDYEAR**

BIO 161 (Field Biology)	<b>5</b>
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**FOURTH YEAR, First Semester**

BIO 116 (Invertebrate Biology)/BIO 117 (Vertebrate Biology)/BIO 118 (Insect Biology)/BIO 119 (Fish Biology)/BIO 172 (Systematics and Ecology of Animal Parasites)	4
BIO 164 (Biodiversity and Conservation Biology)	3
BIO 165 (Biogeography)	3
BIO 196 (Undergraduate Seminar)	1
BIO 200 (Undergraduate Thesis)	2
Free Elective <sup>b</sup>	3
<b>16</b>	

**FOURTH YEAR, Second Semester**

PI 100 (The Life and Works of Jose Rizal)	3
BIO 162 (Limnology)/BIO 166 (Restoration Ecology)	4
BIO 193 (Evolutionary Ecology)	3
BIO 200 (Undergraduate Thesis)	1
Science Elective <sup>c</sup>	3-5
<b>14-16</b>	

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