BIOLOGY B.A.

The Biology B.A. program has fewer required courses in biology, mathematics, and physics than the Biology B.S. program. It is intended for those who do not wish to pursue advanced degrees in biology or medicine that require calculus or physics. It is for those who wish to start a career right out of college, for example in the industry, as a lab technician, or sales representative for medical or laboratory supplies, for those who wish to pursue a teaching training program, or for those who wish to combine biology with another concentration, e.g., nursing, business, preparation for physician assistant or with a structured minor. The B.A. in Biology includes 39-41 credit hours in biology and 16 credit hours in the related fields of chemistry and mathematics.

Students within the Biology B.A. program must maintain a minimum 2.0 G.P.A. in courses taken at D'Youville in coursework required for their major. Students who fail to earn this G.P.A. will be placed on probation in the major. Probation may continue for a maximum of three consecutive semesters or a total of four non-consecutive semesters. Students who exceed these limits will be dismissed from the major. Students may appeal these decisions on academic status by submitting, in writing, to the department chairperson, reasons why exceptional consideration may be justified.

If a student is dismissed from the Biology B.S. program due to poor performance in courses not required for the B.A. program, a student may have their record re-evaluated as a major in the B.A. program, and may be declared in good standing if their performance in the B.A. requirements justifies this.

Course Requirements

Biology B.A.

Code	Title	Credits
General Education Requirements		30
Major Requirements		52-55
Free electives (including remaining Liberal Arts and Sciences Requirements)		35-38
Total credits need to add up to at least 120 for students to graduate.		120

Course Requirements for the Major
In the Specific Areas of Concentration

Code	Title	Credits
BIO-101	Introductory Biology I	4
BIO-101L	Intro Bio Lab I	0
BIO-102	Introductory Biology II	4
BIO-102L	Intro Bio Lab II	0
BIO-110	Biology Seminar 1	1
BIO-205	Biodiversity I, Microbes, Protists, and Plants	4
BIO-205L	Biodiversity I, Microbes, Protists, and Plants Lab	0
BIO-206	Biodiversity II	4
BIO-206L	Biodiversity II Lab	0
BIO-300	Biology Seminar 2	1
BIO-302	Genetics	4
BIO-302L	Genetics Lab	0
BIO-303	Biochemistry	3
BIO-303L	Biochemistry Lab	1
BIO-499	Capstone Experience	1
Total Credits		**27**

Two out of Three of the Following Courses (7 or 8 credits)

Code	Title	Credits
BIO-305	Human Physiology [1]	3
BIO-306	Ecology, Evolution & Behavior [2]	4
BIO-306L	Ecology, Evolution & Behavior Lab	0
BIO-312	Molecular Cell Biology	4

[1] Human Physiology (BIO-305) can be substituted with one of the two following 6-credit combinations: either Human Anatomy & Physiology I (BIO-107) and Human Anatomy & Physiology II (BIO-108) or Advanced Physiology I (BIO-659) and Advanced Physiology II (BIO-660)

[2] BIO-306 Ecology, Evolution & Behavior and BIO-306L Ecology, Evolution & Behavior Lab are co-requisites.

Biology Electives Chosen from (3 or 4 credits)

Code	Title	Credits
BIO-107	Human Anatomy & Physiology I	3
BIO-107L	Human Anatomy & Physiology Laboratory	1
BIO-108	Human Anatomy & Physiology II	3
BIO-108L	Human Anatomy & Physiology II Lab	1
BIO-230	Foundations of Environmental Science	4
BIO-230L	Foundations of Environmental Science	0
BIO-304	Microscopic Anatomy	4
BIO-304L	Microscopic Anatomy Lab	0
BIO-309	Virology	3
BIO-310	Immunology	3
BIO-317	Comparative Anatomy	4
BIO-317L	Comparative Anatomy Lab	0
BIO-320	Developmental Biology	4
BIO-320L	Dev Biology Lab	0
BIO-332	Environmental Health	3
BIO-331	Conservation Biology	4
BIO-331L	Conservation Biology Lab	0
BIO-335	Pharmacology I	3
BIO-336	Pharmacology II	3
BIO-339	Human Gross Anatomy	6
BIO-339L	Gross Anatomy Lab	0
BIO-350	Fundamentals of Genomics, Proteomics & Bioinformatics	3
BIO-351	Computational Biology	4
BIO-351L	Computational Biology Lab	0
BIO-375	Math Modeling in Biology	3
BIO-389	Special Topics	3-4
BIO-390	Special Topics	3-4
BIO-407	Research At DYC	1-3
BIO-408	Research At DYC	1-3
BIO-479	Independent Study	1-3
BIO-480	Independent Study	1-3
BIO-505	Neurobiology	4
BIO-505L	Neurobiology Lab	0
BIO-610	Immunology	3

BIO-659	Advanced Physiology I	3
BIO-660	Advanced Physiology II	3
Total Credits		14

In Other Academic Areas Required for the Major

Code	Title	Credits
CHE-101	General Chemistry I	3
CHE-101L	General Chemistry Laboratory	1
CHE-102	General Chemistry II	3
CHE-102L	General Chemistry Laboratory II	1
CHE-219	Organic Chemistry	3
or CHE-209	Principles of Organic Chemistry	
CHE-219L	Organic Chemistry Lab	1
or CHE-209L	Principles of Organic Chemistry Lab	
MAT-102L	Mathematics in Biology: Models, Data and Relations	1
MAT-201	Biostatistics	3
Total Credits		**16**

Biology B.A. for Health Professions Preparation

(Preparation for Physician Assistant B.S./M.S. Please note: Matriculation into the P.A. program requires application, interview and acceptance.)

Code	Title	Credits
General Education Requirements		30
Major Masters in P.A. Preparation (BIO BA degree)		53
Pre-P.A. Option		24
Free electives (including remaining Liberal Arts and Sciences Requirements)		13
Total Credits		**120**

Course Requirements for the Major

In the Specific Areas of Concentration

Code	Title	Credits
BIO-101	Introductory Biology I	4
BIO-101L	Intro Bio Lab I	0
BIO-102	Introductory Biology II	4
BIO-102L	Intro Bio Lab II	0
BIO-110	Biology Seminar 1	1
BIO-205	Biodiversity I, Microbes, Protists, and Plants	4
BIO-205L	Biodiversity I, Microbes, Protists, and Plants Lab	0
BIO-206	Biodiversity II	4
BIO-206L	Biodiversity II Lab	0
BIO-300	Biology Seminar 2	1
BIO-302	Genetics	4
BIO-302L	Genetics Lab	0
BIO-303	Biochemistry [1]	3
BIO-303L	Biochemistry Lab [1]	1
BIO-499	Capstone Experience [2]	3
Total Credits		**29**

[1] Must be taken at D'Youville.

[2] These (3) credits are already counted under the General Education requirements.

Biology Electives including

Code	Title	Credits
BIO-107	Human Anatomy & Physiology I	3
BIO-108	Human Anatomy & Physiology II	3
BIO-306	Ecology, Evolution & Behavior [1]	4
or BIO-312	Molecular Cell Biology	
Total Credits		**10**

[1] Must be taken with Ecology, Evolution & Behavior Lab (BIO-306L).

In Other Academic Areas Required for the Major

Code	Title	Credits
CHE-101	General Chemistry I	3
CHE-101L	General Chemistry Laboratory	1
CHE-102	General Chemistry II	3
CHE-102L	General Chemistry Laboratory II	1
MAT-102	Mathematics in Biology: Models, Data and Relations	1
MAT-201	Biostatistics	3
CHE-209	Principles of Organic Chemistry	3
or CHE-219	Organic Chemistry	
CHE-209L	Principles of Organic Chemistry Lab	1
or CHE-219L	Organic Chemistry Lab	
Total Credits		**16**

Health Professions Preparation Option (B.S./M.S. in Physician Assistant Preparation)

Code	Title	Credits
PHI-214	Challenges of Death	3
PHI-312	Bioethics Seminar	3
BIO-307	Pathophysiology [1]	3
PSY-203	Lifespan Development	3
BIO-107L	Human Anatomy & Physiology Laboratory	1
BIO-108L	Human Anatomy & Physiology II Lab	1
BIO-208	Microbiology	3
BIO-208L	Microbiology Lab	1
BIO-639	Human Gross Anatomy	6
BIO-639L	Human Gross Anatomy Lab	0
BIO-639XD	Human Gross Anatomy Extra Disection Lab	0
Total Credits		**24**

[1] Must be taken at D'Youville.

Admission Requirements

Admission into the B.A. in Biology requires 1) three years of high school Math, English, History, and Science, 2) a high school average of 80% or a 2.7 on a four-point scale or a transfer G.P.A. of 2.0, and, 3) a high school science G.P.A. above 80%.

The B.A. for health professions preparation program is designed for students preparing for graduate programs in physician assistant and other allied health fields. Admission to the D'Youville graduate physician assistant program will require application directly to the program during the beginning of the third and/or final year of undergraduate study.

Students nearly meeting these requirements will be considered for these programs by the department.