

Department of Biology

BIOL & MATH Specialization

Wondering what courses to take?

Common First Two Years (BSCH BIMA)

Year One:

F	Introductory Biology of Cells (BIOL-102)
FW	Calculus (MATH-122 or 121 or 120)
FW	Linear Algebra (MATH 110 or 111)
FW	General Chemistry (CHEM-112 or 116)
W	Introductory Biology of Organisms (BIOL-103)

Plus elective courses

Year Two:

F	Diversity of Life I (BIOL-201)
F	Mendelian & Molecular Genetics (BIOL-205)
F	Data Management (BIOL-243) <u>OR</u> Statistics and Probability II (STAT-269)
W	Diversity of Life II (BIOL-202)
W	Evolutionary Genetics (BIOL-206)
W	Gene Structure & Function (BCHM-218) <u>OR</u> Cell Biology (BIOL-330) Differential Equations (MATH-231 or 232)

Plus elective courses

Year Three:

F	Population & Evolutionary Ecology (BIOL-302) <u>OR</u>
W	Community & Ecosystem Ecology (BIOL-303)
F/W	6.0 units in BIOL @ 300 or above
F	Animal Physiology (BIOL-339) <u>OR</u>
W	Plant Physiology (BIOL-341) <u>OR</u>
F	Comparative Biochemistry (BIOL-334)
	Vector Calculus (MATH-221 or 280)
	Statistics and Probability I (STAT-268 or 351)

Plus elective courses

Year Four:

	Evolutionary Game Theory (MATH-339)
	Modeling Techniques in Biology (BIOM-300)
F/W	6.0 units in MATH or STAT @300 or above
F/W	6.0 units in MATH or STAT any level
F/W	3.0 units in BIOL any level

Plus elective courses

Visit: <http://www.queensu.ca/artsci> for details on all plans

Department of Biology

Looking for suggestions?

Ecology & Evolutionary Biology stream--suggested courses: Cell Biology (BIOL-330), Field Studies (BIOL-307), Macroevolution (BIOL-440), Natural Selection/Microevolution (BIOL-439), Conservation Biology (BIOL-422).

Plant Sciences stream--suggested courses: Ecology (BIOL-302), Plant Physiology (BIOL-341), Genomics (BIOL-331), Techniques in Molecular Biology (BIOL-404), Plants for People (BIOL-315).

Integrated Animal Biology stream--suggested courses: Ecology (BIOL-302), Animal Physiology (BIOL-339), Animal Behaviour (BIOL-321), Environmental Physiology of Animals (BIOL-322), Cell Biology (BIOL-330), Cellular Basis of Adaptation (BIOL-431), Neuroethology (BIOL-445).

Genetics and Molecular Biology stream--suggested courses: Ecology (BIOL-302), Molecular Biology (BCHM-218), Cell Biology (BIOL-330), Analytical Genomics (BIOL-331), Techniques in Molecular Biology (BIOL-404), Molecular Genetics of Development (BIOL-430), Molecular Genetics (BIOL-441).

Suggested First Year Electives

GEOL-107	History of Life
PSYC-100	Psychology
PHYS-107	Introductory Physics
ENGL-110	Introduction to English Literature
ENGL-168/169	Modern Literature in English
GEOL-105	Environmental Geology
GPHY-100	Geography and the Environment

For more information, including detailed information on requirements for biology degree programs as well as biology courses that can be used to fill option courses in upper years, please refer to the Faculty of Arts and Science Calendar.