ANIMAL BIOLOGY: MAJORS

First & Second Year:

First Year (34 credits)	☐ **BIOL 112** ☐ **BIOL 121 & 140**	☐ **CHEM 121 & 123** or ☐ **CHEM 111 & 113**	☐ **PHYS 101 or 121** ☐ **Electives** (3 credits)	**Two of MATH:** ☐ 100, 102, 104, 120, 180, or 184 ☐ 101, 103, 105, 121	☐ **ENGL** (6 credits of 100 level English) - ENGL 112 recommended
Second Year (31 to 32 credits)	☐ **BIOL 200** ☐ **BIOL 201**	☐ **BIOL 204** ☐ **BIOL 205** ☐ **BIOL 240** (Optional)	☐ **CHEM 233** ☐ **CHEM 235** ☐ **CHEM 205**	☐ **Electives** (6 credits) -BIOL 209 & 210 recommended	☐ **Arts Electives** (6 credits)

Registration Notes for 1st & 2nd year Biology:

1. BIOL 112,121, and 140 are prerequisites to the Major or Honours program options in the Biology Program. Students who have completed Biology 12 may enter into these courses directly. Students with Biology 11 may enter BIOL 112 if they have Chem 12. BIOL 112 is acceptable as the sole prerequisite for BIOL 121. Students without high school biology must take BIOL 111 before registering in BIOL 112,121, and 140.
2. Students without Physics 12 must replace elective with PHYS 100 (prior to PHYS 101).
3. Three credits of first-year English courses may be deferred to second year.

Third & Fourth Year:

Third Year (31 credits)	☐ **BIOL 353**	☐ **BIOL 334** ☐ **BIOL 335 or 336**	☐ **BIOL 300** ☐ **Breadth Elective** (3 credits)	☐ **BIOL 302 (3)** ☐ **BIOL 303 (3)**	☐ **Arts Electives** (6 credits)
Fourth Year (30 credits)	☐ **Animal Biology Electives** 300 level or higher (6 Credits)	☐ **Animal Biology Electives** 300 level or higher (6 Credits)	☐ **Animal Biology Electives** 300 level or higher (6 Credits)	☐ **Electives** (6 credits)	☐ **Breadth Electives** (6 credits)

Registration Notes for 3rd & 4th year Biology:

1. Students **must take** their physiology course (BIOL 350,351/352, or 353) in **third year**. If other constraints require that you take this course in 4th year you need the permission of your program advisor and let the Biology Office know.2. Students are encouraged to undertake 3 to 6 credits of Directed Studies (BIOL 448)**.**
2. Three credit of BIOL 448 may be counted as a Biology Program Elective with the permission of either their supervisor (if in Botany/Zoology) or a Animal Biology Program Advisor.
3. Breadth Electives – 9 credits must be in Arts or in Science outside the field of major
4. Animal Biology Electives ~ See list on reverse side

For further information please see the Biology Program website http://www.zoology.ubc.ca/bpg/index.html or visit the Biology Program Office Rm. 2521!!!

Animal Biology Program Electives

Some courses listed here may not be available in the current year. Please check the UBC Course Schedule website for current course availability http://courses.students.ubc.ca!!!

ANSC 313 – Principles of Animal Breeding
ANSC 321 – Methods in Animal Nutrition
ANSC 322 – Animal Nutrition
ANSC 323 – Experimental Nutrition
ANSC 414 – Animal Breeding Applied to Natural Populations
ANSC 425 – Comparative Nutrition
ANAT 390 – Introduction to Microscopic Human Anatomy
ANAT 391 – Introduction to Gross Human Anatomy
BIOC 302 – Biochemistry
BIOC 303 - Molecular Biochemistry
BIOL 301 – Biomathematics
BIOL 305 – Biological/Geological Oceanography
BIOL 310 – Animal Behaviour
BIOL 325 – Animal Mechanics and Locomotion
BIOL 327 – Entomology
BIOL 328 – Parasitology
BIOL 331 – Developmental Biology
BIOL 332 – Protistology
BIOL 336 - Evolutionary Genetics
BIOL 337 – Genetics Laboratory
BIOL 405 – Marine Ecology
BIOL 410 – Animal Behaviour
BIOL 413 – Zoogeography
BIOL 416 – Conservation Biology
BIOL 418 – Evolutionary Biology
BIOL 419 – Ecological Parasitology
BIOL 425 – Biomechanics
BIOL 427 – Terrestrial Vertebrates
BIOL 430 – Genome Evolution
BIOL 434 – Population Genetics
BIOL 440 – Functional and Comparative History of Vertebrates
BIOL 441 – Animal Cell Biology
BIOL 445 – Darwin's Fishes
BIOL 446 – History and Philosophy of Biology
BIOL 450 – Molecular Adaptation of Animals to the Environment
BIOL 453 – Animal Physiology Laboratory
BIOL 454 - Comparative Animal Physiology
BIOL 455 – Comparative Neurobiology
BIOL 456 – Comparative and Molecular Endocrinology
BIOL 457 – Comparative Environmental Physiology
BIOL 458 – Developmental Neurobiology
BIOL 463 – Gene Regulation in Development
BIOL 464 – Animal Development Genetics
BIOL 465 – Biology of Fishes
MATH 361 – Introduction to Mathematical Biology
MATH 462 – Projects in Mathematical Biology
MRNE 410 – Marine Invertebrates
MRNE 411 – Invertebrate Embryology
MRNE 412 – Biology of Fishes
MRNE 413 – Marine Molluscs
MRNE 430 – Marine Ecology
MRNE 440 – Marine Birds
EOSC 371 - Introduction to Biological and Geological Oceanography
EOSC 474 (OCGY 410) – Marine Pollution
EOSC 478 (OCGY 420) – Introduction to Fisheries Scienc