

Bachelor of Science - Biological Sciences Minor 2011/2012 academic year

Total credits required for minor = 18 senior-level credits (non-duplicative coursework)

Prerequisite Junior Courses (6 credits):

- BIOL 107: Introduction to Cell Biology
- BIOL 108: Organisms in their Environment

Note: These courses may be used to satisfy part of the Science Degree junior core requirements. These courses should be taken in the first year and can be taken in either order. Additional pre-requisites may be required for other courses in this major. Please consult the course descriptions in the MacEwan calendar.

Senior-level Courses Satisfying Minor Requirement (18 credits)

Required Senior Courses (3 credits):

3 credits from the following: (Note: Both may be taken for credit)

- BIOL 207: Molecular Genetics and Heredity
- BIOL 208: Principles of Ecology

General Requirements (15 credits):

15 credits from the following (non-duplicative):

Note: A minimum of 6 credits must be completed at the 300 or 400 level.

The streams described below are suggested paths of study; they are not formal or required concentrations.

Molecular Genetics Stream

- BICM 200: Introductory Biochemistry
- BIOL 201: Eukaryotic Cellular Biology I
- BIOL 207: Molecular Genetics and Heredity
- GENE 270: Genetics of Bacteria
- ZOOL 241: Animal Physiology I: Homeostasis
- ZOOL 242: Animal Physiology II: Intercellular Communication

- BICM 320: Structure and Catalysis
- BICM 330: Nucleic Acid Chemistry and Molecular Biology
- BIOL 300: Eukaryotic Cellular Biology II
- BIOL 313: Animal Developmental Biology
- BIOL 315: History of Biology
- BIOL 321: Mechanisms of Evolution
- BIOL 337: Biological Statistics
- BIOL 385: Wildlife Forensics
- GENE 317: Genetics and Society
- GENE 370: Genetics of Higher Organisms

- BIOL 492: Field Placement
- BIOL 495: Special Topics
- BIOL 498: Independent Research
- GENE 400: Genome Organization
- GENE 404: Genetic Regulatory Mechanisms
- GENE 418: Human Genetics
- GENE 420: Research Techniques in Molecular Biology

Environmental Biology Stream

- BIOL 208: Principles of Ecology
- BOTN 205: Fundamentals of Plant Biology
- ZOOL 224: Vertebrate Diversity
- ZOOL 225: Comparative Anatomy of the Vertebrates
- ZOOL 250: Survey of the Invertebrates

- BIOL 310: Freshwater Aquatic Ecology
- BIOL 312: Terrestrial Ecology
- BIOL 315: History of Biology
- BIOL 321: Mechanisms of Evolution
- BIOL 337: Biological Statistics
- BIOL 361: Marine Biology
- BIOL 365: Tropical Rainforest Ecology
- BIOL 367: Conservation Biology
- BIOL 371: Animal Behaviour
- BIOL 385: Wildlife Forensics

- BIOL 410: Techniques in Field Ecology
- BIOL 492: Field Placement
- BIOL 495: Special Topics
- BIOL 498: Independent Research
- ZOOL 400: Aquatic Vertebrates
- ZOOL 401: Terrestrial Vertebrates
- ZOOL 425: Introductory Entomology
- ZOOL 452: Principles of Parasitism

Note: Not all courses listed are offered each year.