To graduate with a degree in MBB: A student must complete a minimum of 44 upper division units with a total of 120 units (upper and lower division). **Prerequisite Grade:** For a course to be accepted as fulfilling a prerequisite for any upper division MBB course, a student must have obtained a minimum grade of C unless otherwise noted. Fall 2018

### Major Program (120 units)
All students must complete the lower and upper division core requirements.

#### Lower Division Core
- MBB 222-3 Molecular Biology and Biochemistry
- MBB 231-3 Cell Biology and Biochemistry
- BISC 101-4 General Biology
- BISC 102-4 General Biology
- BISC 202-3 Genetics
- CHEM 121-4 General Chemistry and Laboratory I
- CHEM 122-2 General Chemistry II
- CHEM 126-2 General Chemistry Laboratory II
- CHEM 281-4 Organic Chemistry I
- CHEM 286-2 Organic Chemistry Laboratory II
- one of:
  - CHEM 282-2 Organic Chemistry II
  - CHEM 215-4 Introduction to Analytical Chemistry
- or:
  - CHEM 283-3 Organic Chemistry IIb
  - CHEM 380-4 Chemical and Instrumental Methods of Identification of Organic Compounds (Chem 215 can be substituted for CHEM 380-4)

one of:
- MBB 243-3 Data Analysis for MBB
- CMPT 102-3, CMPT 110-3, CMPT 120-3, CMPT 126-3, or CMPT 130-3

#### Upper Division Core
- MBB 308-3 Molecular Biology Lab
- MBB 309W-4 Biochemistry Lab
- MBB 321-3 Intermediary Metabolism
- MBB 322-3 Molecular Physiology
- MBB 331-4 Molecular Biology

A minimum of five courses from the following list:
- MBB 323-3 Introduction to Physical Biochemistry
- MBB 324-3 Protein Biochemistry
- MBB 342-3 Introductory Genomics & Bioinformatics
- MBB 402-3 Developmental Biology of Cell Signalling
- MBB 420-3 Selected Topics in Contemporary Biochemistry
- MBB 421-3 Nucleic Acids
- MBB 423-3 Protein Structure and Function
- MBB 424-3 Membrane Transport Mechanisms
- MBB 426-4 Immune System I
- MBB 427-3 Immune System II
- MBB 428-3 Microbial Pathogenesis
- MBB 429-3 RNA-Mediated Gene Regulation
- MBB 430-3 Mechanisms of Secretory Transport
- MBB 431-3 Cells and the Environment
- MBB 432-4 Advanced Molecular Biology Techniques
- MBB 433-3 Epithelial Cell Biology
- MBB 436-3 Gene Expression
- MBB 438-3 Human Molecular Genetics
- MBB 440-3 Selected Topics in Contemporary Molec Biol
- MBB 441-3 Bioinformatics
- MBB 443-3 Protein Biogenesis and Degradation
- MBB 446-3 Molecular Biology of Cancer
- MBB 461-3 Comparative Genomics
- MBB 462-3 Human Genomics
- MBB 463-3 Forensic Genomics
- MBB 464-3 From Genome to System
- HSCI 442-4 Immunology Lab

#### Minor Requirements:
All lower division core requirements (except for BISC 202, CHEM 215, STAT 201/270 and CMPT) plus any five upper division MBB courses.

#### Honors Requirements:
In addition to fulfilling the MBB Major requirements, honors students must complete an Individual Study Semester (ISS) over one (MBB 481-5/482-5/483-5 taken concurrently) or two semesters (MBB 491-5 and MBB 492-10). Honors students must also complete a total of 124 units. Of the 124 units, 60 must be upper division units (and includes the ISS).

(Note that MBB 491-5 and MBB 498-3 are research course electives for MBB majors.)

### MBB Undergraduate Program Webpage:
http://www.sfu.ca/mbb/undergraduate-program/mbb-advising.html

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**Note:** All students are subject to WQB requirements

1. Lower division writing course
2. B-Hum
3. B-Soc

[http://www.sfu.ca/ugcr/For_Students/WQB_Requirements](http://www.sfu.ca/ugcr/For_Students/WQB_Requirements)