

**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. November 2015

### 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

and both of:

- ☐ CHEM 215-4 Introduction to Analytical Chemistry
- ☐ CHEM 282-2 Organic Chemistry II

OR both of:

- ☐ CHEM 283-3 Organic Chemistry IIb
- ☐ CHEM 380-4 Chemical and Instrumental Methods of Identification of Organic Compounds

one of:

- ☐ CMPT 102-3 Intro to Scientific Computer Program
- ☐ CMPT 110-3, CMPT 120-3, CMPT 126-3, or CMPT 130-3

one of:

- ☐ MATH 150-4 Calculus I with Review
- ☐ MATH 151-3 Calculus I
- ☐ MATH 154-3 Calculus I for the Biological Sciences

one of:

- ☐ MATH 152-3 Calculus II
- ☐ MATH 155 -3 Calculus II for the Biological Sciences

one of :

- ☐ PHYS 101-3 Physics for the Life Sciences I,  
PHYS 120-3, PHYS 125-3, or PHYS 140-4

one of :

- ☐ PHYS 102-3 Physics for the Life Sciences II,  
PHYS 121-3, PHYS 126-3, PHYS 141-4

one of:

- ☐ STAT 201-3 Statistics for the Life Sciences
- ☐ STAT 270-3 Intro to Probability & Statistics

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

[http://www.sfu.ca/ugcr/For\\_Students/WQB\\_Requirements](http://www.sfu.ca/ugcr/For_Students/WQB_Requirements)

1 - Lower division writing course \_\_\_\_\_

2 - B-Hum \_\_\_\_\_

2 - B-Soc \_\_\_\_\_

### 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 331-3 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 Intro to Genomics & Bioinformatics
- ☐ MBB 402-3 Developmental Biology of Cell Signalling
- ☐ MBB 420-3 Selected Topics in Contemporary Biochemistry
- ☐ MBB 421-3 Nucleic Acids
- ☐ MBB 422-3 Biomembranes
- ☐ 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 Disease
- ☐ MBB 432-3 Advanced Molecular Biology Techniques
- ☐ 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 444-3 Developmental Neurobiology
- ☐ MBB 446-3 Cell Death and Cell Survival
- ☐ MBB 461-3 Comparative Genomics
- ☐ MBB 462-3 Human Genomics
- ☐ MBB 463-3 Forensic Genomics
- ☐ PHYS 433-3 Biological Physics 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).

MBB Undergraduate Program Webpage:

<http://www.sfu.ca/mbb/Ugrd/index.html>