

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. Fall 2014

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 215-4 Introduction to Analytical Chemistry
 - ☐ CHEM 281-4 Organic Chemistry I
 - ☐ CHEM 282-2 Organic Chemistry II or CHEM 283-3
 - ☐ CHEM 286-2 Organic Chemistry Laboratory II
- one of:
- ☐ CMPT 102-3 Intro to Scientific Computer Program
 - ☐ CMPT 110-3 Programming in Visual Basic
 - ☐ CMPT 120-3 Intro to Computing Science & Program I
 - ☐ CMPT 130-3 Intro to Computer Programming I
- 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 Mechanics and Modern Physics
 - ☐ PHYS 125-3 Mechanics and Special Relativity
 - ☐ PHYS 140-4 Studio Physics – Mechanics and Modern Physics
- one of :
- ☐ PHYS 102-3 Physics for the Life Sciences II
 - ☐ PHYS 121-3 Optics, Electricity and Magnetism
 - ☐ PHYS 126-3 Electricity, Magnetism and Light
 - ☐ PHYS 141-4 Studio Physics – Optics, Electricity and Magnetism
- 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

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 Molecular and Developmental Genetics
- ☐ 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 Molecular Mechanisms of Microbial Pathogenesis
- ☐ MBB 430-3 Mechanisms of Secretory Transport
- ☐ MBB 431-3 Cells and Disease
- ☐ MBB 432-3 Advanced Molecular Biology Techniques
- ☐ MBB 435-3 Genome Biology
- ☐ MBB 436-3 Gene Expression
- ☐ MBB 438-3 Human Molecular Genetics
- ☐ MBB 440-3 Selected Topics in Molecular Biology
- ☐ MBB 441-3 Bioinformatics
- ☐ MBB 442-3 Proteomics
- ☐ 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
- ☐ 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 132 units. Of the 132 units, 60 must be upper division units (and includes the ISS).

MBB Undergraduate Program Webpage:

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