To graduate with a degree in MBB: A student must complete a minimum of 44 upper division credit hours with a total of 120 credit hours (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. Acceptance into and continuation in the major requires a minimum cumulative grade point average (CGPA) of 2.5 upon completion of the lower division core courses (not including the CMPT courses). Spring 2012

### Major Program (120 semester hours)
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
- CMPT 102-3 Intro to Scientific Computer Program
- CMPT 110-3 Programming in Visual Basic
- CMPT 120-3 Intro to Computing Science & Program. I
- MATH 150-4 Calculus I with Review
- MATH 151-3 Calculus I
- MATH 154-3 Calculus I for the Biological Sciences
- MATH 152-3 Calculus II
- MATH 155-3 Calculus II for the Biological Sciences
- PHYS 101-3 Physics for the Life Sciences I
- PHYS 121-3 Optics, Electricity and Magnetism
- PHYS 126-3 Electricity, Magnetism and Light
- PHYS 141-4 Studio Physics – Optics, Electricity and Magnetism
- STAT 201-3 Statistics for the Life Sciences
- STAT 270-3 Intro to Probability & Statistics

#### 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
- MBB 332-3 Molecular Biology
- MBB 335-3 Genome Biology
- MBB 345-3 Gene Expression
- MBB 347-3 Signal Transduction
- MBB 348-3 Human Molecular Genetics
- MBB 349-3 Selected Topics in Molecular Biology
- MBB 351-3 Bioinformatics
- MBB 352-3 Proteomics
- MBB 353-3 Protein Biogenesis and Degradation
- MBB 354-3 Developmental Neurobiology
- MBB 356-3 Cell Death and Cell Survival
- MBB 357-3 Comparative Genomics
- MBB 358-3 Human Genomics
- MBB 359-3 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 credit hours. Of the 132 credit hours, 60 must be upper division credits (and includes the ISS).

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

Visit [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

**MBB Undergraduate Program Webpage:**