

Sample Course Sequence for BMCB Major

- Course should be taken in the indicated semester.

	Fall Semester	Spring Semester
First Year	<input type="checkbox"/> BMCB 401 – Opport. in Biochem, Molec. & Cell Biol <input type="checkbox"/> ENGL 401 - First-Year Writing <input checked="" type="checkbox"/> CHEM 403 – General Chemistry <input checked="" type="checkbox"/> BIOL 411 – Principles of Biology <input type="checkbox"/> Discovery Course	<input checked="" type="checkbox"/> CHEM 404 – General Chemistry <input checked="" type="checkbox"/> BIOL 412 – Principles of Biology <input type="checkbox"/> MATH 424B† – Calculus for Life Sciences <input type="checkbox"/> Discovery Course
Second Year	<input checked="" type="checkbox"/> CHEM 547/549 – Organic Chemistry w/lab <input type="checkbox"/> BMS 503 – General Microbiology <input type="checkbox"/> BIOL 528† – Applied Biostatistics <input type="checkbox"/> *PHYS 401 – Introduction to Physics	<input checked="" type="checkbox"/> CHEM 548/550 - Organic Chemistry w/lab <input type="checkbox"/> GEN 604 – Principles of Genetics <input type="checkbox"/> *PHYS 402 – Introduction to Physics <input type="checkbox"/> Discovery Course
Third Year	<input checked="" type="checkbox"/> BMCB 751 – Principles of Biochemistry <input type="checkbox"/> GEN 771 – Molecular Genetics <u>or</u> GEN 704 – Genetics of Prokaryotic Microbes <input type="checkbox"/> Discovery Course <input type="checkbox"/> Elective	<input type="checkbox"/> BMCB 605 – Eukaryotic Cell & Developmental Biology <input checked="" type="checkbox"/> BMCB 752- Principles of Biochemistry <input type="checkbox"/> BMCB 755 – Lab Biochem & Molecular Biology (<u>or</u> BMCB 754, taught during fall semester) <input type="checkbox"/> Discovery Course
Fourth Year	<input type="checkbox"/> Major Elective/ Non-Major Elective <input type="checkbox"/> Discovery Course <input type="checkbox"/> Elective <input type="checkbox"/> Elective	<input type="checkbox"/> Major Elective/ Non-Major Elective <input type="checkbox"/> Capstone Experience or Lab Course <input type="checkbox"/> Elective <input type="checkbox"/> Elective

†MATH 425 & 426 may be substituted for MATH 424B, MATH 424A & BIOL 528.

Laboratory Techniques Course (Pick one course)

- BMCB 714/715 *Electron Microscopy/EM Lab*
 BMCB 753 *Cell Culture*
 BMCB 754 *Lab in Biochem & Molec Biol of Nucleic Acids*
 BMCB 755 *Lab in Biochem & Molec Biol*

Major Elective Courses: Suggested Upper-level Biological Science Courses

- ANSC 701 *Physiology of Reproduction*
 ANSC 715 *Physiology of Lactation*
 BMCB 714/715 *Electron Microscopy/EM Lab*
 BMCB 750 *Physical Biochemistry*
 BMCB 753 *Cell Culture*
 BMCB 754 *Lab in Biochem & Molecular Biology of Nucleic Acids*
 BMCB 755 *Lab in Biochem & Molecular Biology*
 BMCB 763 *Biochemistry of Cancer*
 BMCB 783 *Proteomics for Biological Discovery*
 BMCB 794 *Protein Structure & Function*
 BMCB 795 *Investigations (4 credit minimum)*
 BMCB 799 *Senior Thesis*
 BMS 702 *Endocrinology*
 BMS 704 *Pathologic Basis of Disease*
 BMS 705 *Immunology*
 BMS 706 *Virology*
 BMS 714 *Research Methods in Endocrinology*
 BMS 718 *Mammalian Physiology*
 CHEM 755 *Advanced Organic Chemistry*
 GEN 704 *Genetics of Prokaryotic Microbes*
 GEN 706 *Human Genetics*
 GEN 711 *Genomics and Bioinformatics*
 GEN 715 *Molecular Evolution*
 GEN 717 *Molecular Microbiology*
 GEN 771 *Molecular Genetics*
 NUTR 750 *Nutritional Biochemistry*
 PSYC 731 *Brain and Behavior*
 ZOOL 777 *Neurobiology & Behavior*