



Biochemistry and Molecular Biology

Suggested Unclassified Courses for Students

The courses in this list are merely suggestions. They might be a good scenario for some students, but not the best choices for someone else. We suggest you consult with a [biochemistry undergraduate advisor](#) before making any decisions.

Course	Credit	Subject	Course Description
BIOC 303	6	Molecular Biochemistry	Structure, function and metabolism of lipids, steroids, amino acids and nucleotides; the biochemistry and molecular biology of replication, transcription, translation and gene regulation. For Majors and Honours students in Biochemistry and Honours students in other life science programs.
BIOC 402	3	Proteins: Structure and Function	Structural components of proteins, classification by primary, secondary and tertiary structure, protein chemistry and purification, peptide and protein synthesis by chemical means and three-dimensional structure determination using X-ray diffraction and NMR.
BIOC 501 A B C	3 3 6	Advanced Biochemistry Lab	Practical applications of advanced biochemical techniques. Admission is limited and is by permission of the department head.
BIOC 503	2	Molecular Biochemistry	A lecture course in molecular biology: replication, transcription, translation, gene organization, gene expression.
BIOL 334	3	Basic Genetics	Mendelian genetics, chromosome theory of heredity, linkage, mutation, mapping, gene structure and function, gene interaction, quantitative genetics, population genetics.
BIOL 335	3	Molecular Genetics	Isolation and identification of genes, analysis of gene structure; gene expression and its regulation in prokaryotes and in eukaryotes; developmental genetics.
CHEM 305	3	Biophysical Chemistry	Diffusion and transport phenomena; interaction of radiation and matter. Methods for determining molecular weight, size, and shape of molecules in solution.