

2021 Fall Molecular Biology

Class No.	Course No.	Title	Instructor	Cr. Hrs.	Semester
4524	MBIOL 6410	Protein & Nucleic Acid Biochemistry	Bass/Sigala	2.0	First Half Semester
<p>This is a Hybrid course, which uses a mixture of online, face-to-face, and technology enhanced instruction. Some in-person small group discussions with social distancing will be required. This is a split attendance class, where students will be assigned to attend one or more of the times listed in the schedule. Students will receive additional content through technology.</p> <p>The Biochemistry course covers the structure and function of nucleic acids and proteins, as well as the thermodynamics and kinetics of their interactions with each other and with other biologically important molecules. It is expected that all students have taken an undergraduate course in Biochemistry, and you may find it useful to review chapters discussing the above-mentioned subjects in an undergraduate Biochemistry textbook. You will also need to have a basic working knowledge of kinetics and thermodynamics. (So, if you are not comfortable working with equilibrium constants, free energies, and rate constants, please review these topics in an undergraduate chemistry text.) There are no required texts for this class; readings from various texts will be made available to the class. Some professors may administer a pre-quiz at the start of their lectures to make sure you are adequately prepared for the material to be covered.</p> <p>To receive further details and updates, please contact eloertscher@genetics.utah.edu. For more information, please go to: https://bioscience.utah.edu/current_students/curriculum.php</p>					
<i>MWF 10:45AM-11:35AM, Language and Communication Building (LNCO) 1110</i>					
4525	MBIOL 6420	G3: Genetics, Genomes, and Gene Expression	Letsou	3.0	Full Semester
<p>This course covers transmission genetics, methods of genetic and genome analysis in model systems and humans, as well as transcriptional and post-transcriptional mechanisms of gene regulation. Lectures cover both classical achievements and recent advances in these fields, with readings based chiefly in the primary literature. Grades are based on exams and problem sets. In previous years, we have found that some students have struggled in this graduate level course in Genetics. Success in G3 requires a foundational understanding of transmission genetics (i.e., successful completion of an undergraduate course in genetics) as the course focuses heavily on genetic analysis. All students should review the basic concepts and students who have not taken a comprehensive undergraduate course in Genetics or have been working in a lab for a number of years should delay taking G3 until the following fall and complete a prerequisite undergraduate course.</p>					
<i>MWF 8:35AM-9:25AM, Language and Communication Building (LNCO) 1100</i>					
10577	MBIOL 6480	Cell Biology	Hughes/Roh-Johnson	1.5	Second Half Semester
<p>This course covers basic and advanced topics related to cell structure and function including cytoskeleton, membrane trafficking, protein targeting/modification and degradation, cell cycle regulation, and signal transduction.</p>					
<i>MW 10:15AM-11:35AM, Emery Building (AEB) 350</i>					
6095 or 17138	MBIOL 7570	Case Studies and Research Ethics	Havstad	1.0	First Half Semester or Second Half Semester
<p>This is an online course, which does not have a specific meeting time or location throughout the semester.</p> <p>An examination of research integrity and other ethical issues involved in scientific research. Topics may include scientific fraud, conflicts of interest, plagiarism and authorship designation, and the role of science in formulating social policy. This course is designed for graduate students, post-docs and regular faculty in the sciences.</p>					
<i>Online – Choose first half or second half semester section</i>					
7771	MBIOL 7960	Research Lab Rotations		3.0	Full Semester

*For questions regarding Fall courses please contact The Bioscience Program Office (bioscience@genetics.utah.edu)

*** Classroom assignments may change between the time you register and when classes begin. Please check your class schedule for the latest classroom location information before attending class.**