

2020 Fall Molecular Biology

Class No.	Course No.	Title	Instructor	Cr. Hrs.	Semester
4777	MBIOL 6050	Faculty Research Interest Seminar	Weis	0.5	First Half Semester

Seminars on research interests of faculty in the Molecular Biology Graduate Program.

Days/times/locations to be arranged by instructor

4775	MBIOL 6410	Protein & Nucleic Acid Biochemistry	Bass/Sigala	2.0	First Half Semester
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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. To receive further details and updates, please contact eloertscher@genetics.utah.edu. For more information please go to: <http://www.bioscience.utah.edu/curriculum/corecourses.html>

MWF 10:45AM-11:35AM, Eyring Chemistry Building (HEB) 2004

4776	MBIOL 6420	G3: Genetics, Genomes, and Gene Expression	Letsou	3.0	Full Semester
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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.

MWF 8:35AM-9:25AM Film and Media Arts (FMAB) Auditorium

11438	MBIOL 6480	Cell Biology	Hughes/Roh-Johnson	1.5	Second Half Semester
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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.

MW 10:15AM-11:35AM, Eyring Chemistry Building (HEB) 2004

6514	MBIOL 7570	Case Studies and Research Ethics	Havstad	1.0	9/16/2020 to 11/11/2020
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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.

W 4:00PM-5:30PM, Online

8337	MBIOL 7960	Research Lab Rotations		2.0	Full Semester
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*For questions regarding Fall courses please contact The Bioscience Program Office (bioscience.genetics@utah.edu)