

## 2019 Fall Molecular Biology Courses

Class No.	Course No.	Title	Instructor	Cr. Hrs.	Semester
5049	MBIOL 6050	Faculty Research Interest Seminar	-	0.5	TBD

This course highlights faculty members and their research. Schedule will be announced in Fall.

**MWF 9:40-10:30AM, ASB 210**

5047	MBIOL 6410	Protein & Nucleic Acid Biochemistry	Sigala/Bass	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](mailto:eloertscher@genetics.utah.edu). For more information please go to: <http://www.bioscience.utah.edu/curriculum/corecourses.html>

**MWF 10:45-11:35 AM, ASB 210**

5048	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. A passing grade on an entrance exam covering basic concepts in Genetics serves as a prerequisite for registration in this class.

Some of the Molecular Biology Program students have not had adequate preparation in Genetics (such as a comprehensive undergraduate course in Genetics), and have struggled in the graduate course. To prevent such problems, all students will be given a simple exam the week before the semester begins. This entrance exam will cover basic concepts in Genetics. You should have no problem with this entrance exam if you review the CD-Rom/Booklet entitled Interactive Genetics. This review should include all of the problems on the CD. If you have any questions, please contact [eloertscher@genetics.utah.edu](mailto:eloertscher@genetics.utah.edu)

**Genetics Placement Test: Thursday, August 15<sup>th</sup> 2019 @ 9:00AM, Location TBD**

**MWF 8:35-9:25 AM, ASB 210**

12408	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.

**MWF 10:45-11:35 AM, GC 2660**

6929	MBIOL 7570	Scientific Integrity & Ethics of Science Research	TBD	1.0	9/11/2019 to 11/13/2019
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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. Aug 31 – Nov 2.

**W 4:00-5:30PM, HSEB 1750**

8915	MBIOL 7960	Research Lab Rotations	-	2.0	Full Semester
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\*For questions regarding Fall courses please contact Jessica Betenson in the Bioscience Program Office ([jessica.betenson@utah.edu](mailto:jessica.betenson@utah.edu))