MB610 Syllabus. Advanced Topics in Cell and Molecular Biology  
Spring 2014  
Schedule No. 21809

COURSE INFORMATION

Class Days: Monday and Wednesdays  
Class Time: 5:00-6:15 p.m.  
Class Location: LS-132

Contact Information:

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Course Overview

Description from Official Course Catalog: Intensive study in specific areas of molecular and cell biology. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units applicable to a master's degree.

Course Content: Major topics can include but are not limited to broad subjects in cell and molecular biology such as stem cell biology, structural and cell biology, and microbial immunology. Familiarity in any of these areas will be gained through lectures or student-led presentations, analysis of the scientific literature and writing assignments. Students will be expected to read and analyze scientific review papers and primary publications. In addition, students will have an opportunity to develop oral presentation skills and scientific writing skills.

Student Learning Outcomes:

At the end of this course students will be able to:

1. Describe the current state of knowledge for several topical areas of cell and molecular biology.
2. Gain experience in interpreting and summarizing current primary literature in broad areas of cell and molecular biology.
3. Appreciate and understand state-of-the-art techniques employed in cell and molecular biology.
4. Discuss the impact and significance of key findings in specific areas of cell and molecular biology.
5. Gain experience in presenting the results of scientific literature both orally and in written form.
6. Work in teams for analysis and communication of scientific literature.
7. Conceive and write a three-page scientific grant proposal following the SDSU University Grants Program Application format.

Real Life Relevance: Students will become adept at critically reading and analyzing primary literature papers and gain experience in grant writing and preparation of figures for publication in peer-reviewed journals.

Relation to Other Courses: Molecular Biology 610 builds upon major cell and molecular biology concepts introduced in Biology 203, Biology 366 and Chemistry 365.
Enrollment Information

Prerequisites: Graduate standing in a life or physical science.

Adding/Dropping Procedures: Per University policy, the last day to add this course is the 10th day of the semester. Please note that if you have not been attending lectures through this period of time you risk falling behind in the material and your final grade may be negatively impacted.

If you have registered for the course but do not attend class within the first two lectures, the instructor will drop you from the course. If you fail to have the required pre-requisite courses the instructor may also drop you from the course. Please note that the instructor may not automatically drop you if you lack the pre-requisite courses, which could negatively impact your final grade for the course.

Crashers: Priority for crashing will be based on the number of units in the major. Per University policy, Open University students will be provided Add Codes once all SDSU students have added the course.

Course Materials

Course material will be made available on Blackboard System.

Course Structure and Conduct

The course is divided into three general sections. The course coordinator will coordinate faculty and student presentations.

Mondays: Typically each week will begin with a presentation that will include an introductory lecture within the designated presenter’s expertise or a student-led presentation. Each lecture may have one or more assigned articles to be read prior to the lecture. You will find these in the Course Documents folder, under the name of the particular instructor. You should be prepared to discuss the contents of these papers in class.

Wednesdays: The second-class time of the week will include discussion/oral presentations given by students describing one assigned original research paper reflecting the scientific material from the previous class time. The exact format of presentation may vary between the sections presenters.

Course Assessment and Grading

Class Participation and Attendance:
Students will be provided with detailed instructions regarding preparations for the discussion/oral presentations. Be prepared to explain each figure included within the assigned original research paper. Also, all students will be expected to contribute in the form of either presenting figures or asking relevant scientific questions regarding the design of the study, the quality of the data, the legitimacy of the authors’ conclusions, and potential future directions. Grading will be based on participation. Be prepared to answer questions from the instructor and based upon the research articles (students may be chosen randomly in class to answer such questions).
UGP Mini-grant Proposal:
In addition, a mini-grant proposal in the format of an SDSU University Grants Program (UGP) Application will be due on May 7th. Instructions and the UGP Application forms will be posted on Blackboard. Representative (and successfully funded) UGP grants will be provided as examples.

Make-up Policy:
Assignments are due on the day and time specified unless prior arrangements are made. Only exceptional circumstances or a medical condition accompanied by a doctor’s excuse will be accepted for late assignments or absences.

Grading:
Grades will be determined for each section of the course by the instructor coordinator based on quizzes and discussion/oral presentations of the original research paper (60% of total grade). The UGP Mini-grant Application and presentation will make up the remaining 40% of total grade.

Final grades will likely be assigned according to a straight percentage distribution: A = 90-100%; B = 80-89.9%; C = 70-79.9%; D = 60-69.9%; F = <60%. The instructor may alter the grading scale at his discretion.

Other Policies

Course Etiquette: Turn off your cell phones and pagers before entering class. Computer use for class is acceptable, but must not be distracting or disruptive. Use of cell phones or earphones during exams will not be permitted.

Audio recording of the lectures must be discussed with the instructors in advance. If permitted, audio recordings are strictly for your personal use and must not be distributed or posted to social media. Video recording of the lectures is not permitted.

Academic Dishonesty: Plagiarism in any form will not be tolerated. No credit will be awarded for plagiarized work and students who plagiarize will be reported to the Center for Student Rights and Responsibilities. If you are unclear of the definition of plagiarism, please see an Instructor or the University Catalog. Cheating will not be tolerated. Students who cheat will be reported to the Judicial Procedures Office.

Students with Disabilities: If you are a student with a disability and believe you will need accommodations for this class, it is your responsibility to contact Student Disability Services at (619) 594-6473. To avoid any delay in the receipt of your accommodations, you should contact Student Disability Services as soon as possible. Please note that accommodations are not retroactive, and that I cannot provide accommodations based upon disability until I have received an accommodation letter from Student Disability Services. Your cooperation is appreciated.