

BIOC6010 Gene Expression and Omics

Class Days and Time: Tuesday and Thursday, 1 – 3 pm
Classroom: 421B (Medical School Building)

Course Director: Yuzuru Shio, M.D., Ph.D.
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Course Description and Objectives:

This course presents **1)** the principles of gene expression, including transcription, epigenetic regulation (histone modifications and DNA methylation), mRNA processing and degradation, translation, post-translational modifications, and protein degradation, and **2)** the omics approaches for collective characterization and quantification of different aspects of gene expression, including genomics, epigenomics, proteomics, and metabolomics. Two main teaching formats are used in this course: 1) Didactic lectures in which information is delivered to the class, and 2) Paper presentations and discussions, in which students present assigned papers and lead discussions by the entire class. Although one student will present each paper, all students will be expected to read each paper and to be prepared to discuss it in the form of comments and questions.

Prerequisites: IBMS5000 or equivalent AND permission of the Course Director

Grading scheme: Final letter grades are based on class attendance, paper presentations, and participation in paper discussions.

The following UTHSCSA policy applies to this course:

REQUESTS FOR ACCOMODATIONS FOR DISABILITIES

In accordance with policy 4.2.3, **Request for Accommodation Under the ADA and the ADA Amendments Act of 2008 (ADAAA)**, any student requesting accommodation must submit the appropriate request for accommodation under the American with Disabilities Act (ADA, form 100) to his/her appropriate Associate Dean of their School and a copy to the ADA Coordinator. Additional information may be obtained at <http://uthscsa.edu/eo/request.asp>.

ACADEMIC INTEGRITY AND PROFESSIONALISM

Any student who commits an act of academic dishonesty is subject to discipline as prescribed by the UT System Rules and Regulations of the Board of Regents. Academic dishonesty includes, but is not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an exam for another person, signing attendance sheets for another student, and any act designed to give unfair advantage to a student or the attempt to commit such an act. Additional information may be obtained at

<http://catalog.uthscsa.edu/generalinformation/generalacademicpolicies/academicdishonestypolicy/>

TITLE IX AT UTHSCSA

Title IX Defined:

Title of the Education Amendments of 1972 is a federal law that prohibits sex discrimination in education. It reads “no person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance.”

University of Texas Health Science Center San Antonio’s Commitment:

University of Texas Health Science Center San Antonio (UTHSCSA) is committed to maintaining a learning environment that is free from discriminatory conduct based on gender. As required by Title IX, UTHSCSA does not discriminate on the basis of sex in its education programs and activities, and it encourages any student, faculty, or staff member who thinks that he or she has been subjected to sex discrimination, sexual harassment (including sexual violence) or sexual misconduct to immediately report the incident to the Title IX Director.

In an emergency, victims of sexual abuse should call 911. For non-emergencies, they may contact UPD at 210-567-2800. Additional information may be obtained at

<http://students.uthscsa.edu/titleix/>