Ginical Applications of Genetics Elective

Academic Year 2024-2025

Course Director: Dr. Smon Williams
Course Co-Director: Dr. Ericka Hendrix

Description: Through lectures, discussions, workshops, and lab tours students will gain an understanding of medical genetics and learn skills needed to successfully practice genetic counseling in clinical settings as well as ethical decision making, case preparation, the interview, family history, risk assessment, and patient education. The elective's goal is to provide an overview of medical genetics from pathological, psychological, pharmacological, social, legal, ethical, and environmental perspectives.

Prerequisite: Enrollment in MS/MSI/GMES/MP Ourriculums and other programs at TTUHSC

Maximum Enrollment: 30 students

Semester Offered: Fall 2024 through Spring 2025

Goals and Objectives: Students will gain exposure to medical genetics, without having to pursue a separate degree. Initially students will explore genetic technologies, clinical application, genetic consulting and ethics. Following these fundamental concepts, subsequent sessions will cover broader aspects of genetics that are important for medical professions such as epigenetics, pharmacogenomics, race and genetics, social genetics, and genetic technologies. The earlier portion of the elective will focus on practical applications through lab tours and encounters with standardized patients, enabling studen

Course Requirements and Grading:

as two) sessions including the final session is required for a passing grade. Participation in the imagination project is also required.

Application: Interested students should complete the application on the Electives application site.

Bective Schedule 2024-2025 (subject to change)

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#	Session Topic	Speaker	Date	Location, Time	
	Introduction and Genetics Technology				
0	Informational Session	Bective Leadership	TBD	TBD	
1	Introduction & Imagination Project	Dr. Smon Williams	TBD	TBD	
2	Advances Molecular Methods and Interpretation	Katie Bennett, Ph.D., MB (ASCP) CM, NRCC- CC Associate Professor in Molecular Pathology, Laboratory Director for Chromatox Diagnostics	TBD	TBD	
3	Clinical Application of Molecular/ Genetics Technology	Ericka Hendrix, Program Director and Associate Professor -Molecular Pathology Program at Texas Tech University Health Sciences Center	TBD	TBD	
Social and Ethical Aspects of Genetics					

4	Ethical, Legal and Social Implications of Genetic and Genomic Research	Ericka Hendrix, Program Director and Associate Professor -Molecular Pathology Program at Texas Tech University Health Sciences Center	TBD	TBD
5	The Twisted Relationship between Genetics and Race	Dr. Smon Williams Ginical Application of Ge	TBD enetics	TBD

6	Behavioral Genetics	Dr. Smon Williams	TBD	TBD
7	Genetic Counseling	Gina Sanchez, MS, CGC	TBD	TBD
8	Pharmacogenomics	Dr. Grace Kuo, Dean TTUHSC School of Pharmacy	TBD	TBD
9	Running a Medical Genetics Laboratory	Dr. Vijay S. Tonk, Department of Pediatrics	TBD	TBD
10	Bioterrorism should we be worried?	Smon Williams	TBD	TBD

11	Project presentation possibly	Judges TBD	TBD	TBD
	asynchronous, prerecorded			155

Academic Integrity: All students are expected to subscribe to an honor system which is implicit in accepting admission to the Health Sciences Center. Each student shall be responsible for his/her conduct from the time of the application for admission through the actual awarding of a degree, even though conduct may occur before classes begin or after classes end, as well as during the academic year and during periods between terms of actual enrollment. Students are expected to abide by all of the rules for academic integrity, as specified in the