ME.710 (HUMAN GENETICS)

Courses

ME.710.700. Advanced Topics in Human Genetics. 1.5 Credits.
Lectures and readings on major areas of researach in contemporary human genetics

ME.710.702. Molecular Mechanisms Of Disease. 1 Credit.
Presentations of literature and concepts related to disease mechanisms

ME.710.734. Evolution of Ideas in Human Genetics.
Presentations of literature starting with Mendel through the present.

ME.710.735. Human Genetics Core Discussion.
Introduction to human genetics research opportunities

ME.710.740. Understanding Genetic Disease. 0.5 Credits.
Attend Genetics Clinic and observe patient/family along with the physician and genetic counselor. In class, summarize the clinical issues, pathogenesis, epidemiology, molecular bases, treatment, potential clinical trials and research needs of the condition

ME.710.742. Core Topics in Human Genetics and Genomics. 1 Credit.
Overview of preceptor research

ME.710.744. Genomic Technologies: Tools for Illuminating Biology and Dissecting Disease. 1.5 Credits.
The course addresses the methodology, design, analysis and application of pivotal technologies whose use and power in genetics is essential for students to understand

ME.710.745. Evolving Concepts of the Gene. 5 Credits.
We focus on classical papers - starting with Darwin and Mendel and working forward through the rediscovery of Mendelism, Morgan and the fly room, the foundations of population genetics, the modern synthesis, the foundations of molecular biology, the extent of variation, through to the discoveries of unanticipated and overlooked aspects of molecular biology including exons/introns, alternative splicing, and microRNAs

ME.710.746. Human Genetics Boot Camp. 2 Credits.

ME.710.747. Systems, genes and mechanisms in disease. 3 Credits.
System-directed training in normal and pathological states and the genetic mechanisms that underpin disease risk/progression. This course is designed to put their training in a human biological and pathological context

ME.710.748. Introduction to Rigor and Reproducibility in Reseach.
3R defines best practices from experimental design and reagent authentication to data recording, analysis, sharing, and publicationEnrollment Restricted to students in the Human Genetics Program

ME.710.800. Independent Research. 1 - 18 Credits.
Student thesis work

ME.710.802. Research Rotations. 1 Credit.
Students will learn hands-on methods of experimentation. Includes face-to-face interactions with faculty each week.