

Advanced Molecular Genetic-MCBI 7440 Spring 2018

2:30-4:30 PM Biotechnology Conference Room (Unless Otherwise Indicated)

Cell Signaling, Cell Cycle Regulation, Gene Expression & Cancer

Date	Lecturer/ Department	Topic
Jan. 9	McCubrey (MCBI)	Introduction to Course and Genetic Mutations Resulting in Activation of Signaling Pathways
Jan. 11	McCubrey (MCBI)	Genetic Mutations in Tumor Suppressor Genes and Effect on Signaling Pathways
Jan. 15	State Holiday	No Classes
Jan. 16	McCubrey (MCBI)	Mutations at Genes Resulting in Human Cancer-Pancreatic Cancer Model
Jan. 18	McCubrey (MCBI)	Mutations at Genes Resulting in Human Cancer-Colorectal Cancer Model
Jan. 23	Lemasson (MCBI)	Eukaryotic Transcription-I
Jan. 25	Lemasson (MCBI)	Eukaryotic Transcription-II
Jan. 30	Polakowski (MCBI)	Genomics and Genomic Analysis
Feb. 1	McCubrey/Letchworth	Exam 1
Feb. 6	Lehman (PATH)	Cell Cycle Regulation and Cancer
Feb. 8	Lehman/ (PATH)	Teratocarcinomas and their uses in Therapy/Research
Feb. 13	Franklin (MCBI)	Functional Aspects of Cell Signaling Pathways-Stress Induced
Feb. 15	Franklin (MCBI)	Epigenetic Regulation of Gene Expression
Feb. 20	Vohra (Surgery)	Somatic mutations in breast cancer and breast cancer classification
Feb. 22	Franklin (MCBI)	Hormone Responsive Cancers
Feb. 27	Yang (Internal Medicine)	Angiogenesis and Therapeutic approaches
March 1	McCubrey/Letchworth (MCBI)	Exam II
March 4-11		Spring Break

Prokaryote Genome Structure and Dynamics & Mechanisms of Genetic Control

Date	Lecturer/ Department	Topic
Mar. 13	Roop (MCBI)	Prokaryote Genome Structure
Mar. 15	Roop (MCBI)	Genes to Gene Products and Genetic Analysis
Mar. 20	Pesci (MCBI)	Plasmids and Plasmid Replication
Mar. 22	Pesci (MCBI)	Regulatory RNA
Mar. 27	Rocha (MCBI)	Conjugation and Plasmid Transfer
Mar. 29	Rocha (MCB)	Transposons and Transposition
Apr. 3	McCubrey/Letchworth	Exam III
Apr. 5	Coleman (MCBI)	Operon Structure
Apr. 10	Coleman (MCBI)	Operon Control- Negative Regulation and Attenuation
Apr. 12	Martin (MCBI)	Sigma Factors in Gene Regulation
Apr. 17	Martin (MCBI)	Mechanisms of Genetic Switching

Apr. 19	Motaleb (MCBI)	Prokaryotic Signal Transduction- Genetic Structure of Two Component Regulatory Systems
Apr. 19	-	Turn in Term Papers on this date. If late, reduces one letter grade each day late.
Apr. 26	Motaleb (MCBI)	Two Component Signal Transduction
May. 1	McCubrey/Letchworth	Exam IV (Apr. 28-May 5 Exams week)
May 5		Grades Due
Note: All exams will be "in class" exams and not "take home".		