

**CAMB 5320
HUMAN PHYSIOLOGY**

Spring 2025 Mon, Weds, Fri, 8.30-10:00am

Room Smilow Center Translation Research (SCTR) 10-146

Directors: Dr's Tejvir S. Khurana, Benjamin L. Prosser, Paul M. Titchenell

Teaching Assistant: Lauren Elizabeth Lee

Membrane Physiology

Jan. 22	Dr. Lee	Action Potentials/Voltage-gates Ion Channels
Jan. 24	Dr. Lee	Synaptic Transmission and Ligand-gated Ion Channels

Nervous System

Jan. 27	Dr. Subramanian	Nervous System
Jan. 29	Dr. Subramanian	Central Nervous System
Jan. 31	Dr. Subramanian	Peripheral Nervous System

Feb 3. Lauren Lee Mentored Study Day

Feb. 5 Exam 1 – Membranes and Neuro

Muscle Physiology

Feb. 7	Dr. Ostap	Contractile Proteins and Striated Muscle-1
Feb. 10.	Dr. Ostap	Striated Muscle-2
Feb. 12	Dr. Ostap	Smooth Muscle (<i>recorded lecture</i>)

Cardiovascular System

Feb. 14	Dr. Prosser	Cardiac and Skeletal Muscle Signaling
Feb. 17	Dr. Margulies	Myocardial Physiology and Cardiac Pump Function
Feb. 19	Dr. Margulies	Vascular Physiology
Feb. 21	Dr. Margulies	Cardiovascular Integration

Feb. 24 Lauren Lee Mentored Study Day

Feb. 26 Exam 2 - Muscle, Cardiovascular

Renal System

Feb. 28	Dr. Shulman	Organization of the Kidney and Glomerular Filtration
Mar. 3	Dr. Fay	Regulation of Sodium Balance
Mar. 5	Dr. Shulman	Regulation of Potassium and Acid Balance
Mar. 7	Dr. Spiardi	Regulation of Water Balance

Mar. 8-16 No class (Spring Break)

Reproductive Physiology

Mar. 17	Dr. Hwang	Female Reproductive Physiology
Mar. 19	Dr. Martin	Male Reproductive Physiology
Mar. 21	Dr. Mainigi	Fertilization Physiology

Endocrine Physiology

Mar. 24	Dr. Merrick	Hormone action; neuroendocrinology of metabolism
Mar. 26	Dr. Hayes	Control of food intake
Mar. 28	Dr. Hayes	Regulation of energy balance

Mar. 31	Dr. Titchenell	Glucose Homeostasis; Insulin Signaling
April 2.	Lauren Lee	Mentored Study Day
Apr. 4	Exam 3-	Renal, Endo, Reproductive
<u>Digestive System</u>		
Apr. 7	Dr. Hirschorn	GI Tract
Apr. 9	Dr. Heuckeroth	Bowel motility and human motility disorders
Apr. 11	Dr. Zackular	Gut microbiome
<u>Sensory System</u>		
Apr. 14	Dr. Lee	Sensory Physiology
<u>Respiratory System</u>		
Apr. 16	Dr. Lin	Ventilation/Perfusion & Gas Exchange and Transport
Apr. 18	Dr. Lin	Gas Exchange and Transport
<u>Integration</u>		
Apr. 21	Dr. Khurana	Integrative Responses to Environment
Apr. 23	Dr. Khurana	Integrative responses to Exercise
Apr. 25	Lauren Lee	Exercise in Health and Disease
Apr. 28	Lauren Lee	Mentored Study
Apr. 30	Exam 4-	Digestive, Respiratory, Sensory, Integration