

**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
<b>April 2.</b>	<b>Lauren Lee</b>	<b>Mentored Study Day</b>
<b>Apr. 4</b>	<b>Exam 3-</b>	<b>Renal, Endo, Reproductive</b>
<b><u>Digestive System</u></b>		
Apr. 7	Dr. Hirschorn	GI Tract
Apr. 9	Dr. Heuckeroth	Bowel motility and human motility disorders
Apr. 11	Dr. Zackular	Gut microbiome
<b><u>Sensory System</u></b>		
Apr. 14	Dr. Lee	Sensory Physiology
<b><u>Respiratory System</u></b>		
Apr. 16	Dr. Lin	Ventilation/Perfusion & Gas Exchange and Transport
Apr. 18	Dr. Lin	Gas Exchange and Transport
<b><u>Integration</u></b>		
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
<b>Apr. 28</b>	<b>Lauren Lee</b>	<b>Mentored Study</b>
<b>Apr. 30</b>	<b>Exam 4-</b>	<b>Digestive, Respiratory, Sensory, Integration</b>