

**CAMB 5320  
HUMAN PHYSIOLOGY**

**Spring 2024 Mon, Weds, Fri, 9-10:30am**

**Room Smilow Center Translation Research (SCTR) 10-146**

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

**Membrane Physiology**

Jan. 19	Dr. Hoshi	Action Potentials/Voltage-gates Ion Channels
Jan. 22	Dr. Hoshi	Synaptic Transmission and Ligand-gated Ion Channels

**Nervous System**

Jan. 24	Dr. Thomas	Nervous System
Jan. 26	Dr. Thomas	Central Nervous System
Jan. 29	Dr. Thomas	Peripheral Nervous System

**Jan. 31 Lauren Lee Mentored Study Day**

**Feb. 2 Exam 1 – Membranes and Neuro**

**Muscle Physiology**

Feb. 5	Dr. Ostap	Contractile Proteins and Striated Muscle-1
Feb. 7.	Dr. Ostap	Striated Muscle-2
Feb. 9	Dr. Ostap	Smooth Muscle

**Cardiovascular System**

Feb. 12	Dr. Prosser	Cardiac and Skeletal Muscle Signaling
Feb. 14	Dr. Margulies	Myocardial Physiology and Cardiac Pump Function
Feb. 16	Dr. Margulies	Vascular Physiology
Feb. 19	Dr. Margulies	Cardiovascular Integration

**Feb. 21 Lauren Lee Mentored Study Day**

**Feb. 23 Exam 2 - Muscle, Cardiovascular**

**Renal System**

Feb. 26	Dr. Fay	Organization of the Kidney and Glomerular Filtration
Feb. 28	Dr. Fay	Regulation of Sodium Balance
Mar. 1	Dr. Shulman	Regulation of Potassium and Acid Balance

**Mar. 2-10 No class (Spring Break)**

Mar. 11 Dr. Spiardi Regulation of Water Balance

**Endocrine Physiology**

Mar. 13	Dr. Titchenell	Hormone action; neuroendocrinology of metabolism
Mar. 15	Dr. Hayes	Control of food intake
Mar. 18	Dr. Hayes	Regulation of energy balance
Mar. 15	Dr. Titchenell	Glucose Homeostasis; Insulin Signaling

### **Reproductive Physiology**

Mar. 22 Dr. Mainigi Female Reproductive Physiology  
Mar. 25 TBD Male Reproductive Physiology

**Mar. 27 Lauren Lee Mentored Study Day**

Mar. 29 Dr. Dokras Fertilization

**Apr. 1 Exam 3 (Renal, Endo, Reproductive)**

### **Digestive System**

Apr. 3 Dr. Ahuja GI Tract  
Apr. 5 Dr. Heuckeroth Bowel motility and human motility disorders  
Apr. 8 Dr. Thaiss Gut microbiome

### **Sensory System**

Apr. 10 Dr. Lee Sensory Physiology

### **Respiratory System**

Apr. 12 Drs. Frank & Basil Ventilation/Perfusion & Gas Exchange and Transport  
Apr. 15 Drs. Frank & Basil Gas Exchange and Transport

### **Integration**

Apr. 17 Dr. Khurana Integrative Responses to Exercise  
Apr. 19 Dr. Khurana Integrative Responses to the Environment

**Apr. 22 Self Study**

**Apr. 24 Lauren Lee Mentored Study**

**Apr. 26 Exam 4 (Digestive, Respiratory, Sensory, Integration)**