Preclinical Kaplan Live Online

Campbell University School of Osteopathic Medicine

Agenda

## Immunology

* Day 1, 4/28/25:
	+ AM
		- Innate Immunity
		- Adaptive Immunity
		- Immunodiagnostics
		- Immunizations
	+ PM
		- Hypersensitivity and Autoimmunity
		- Immunodeficiencies and Transplantation Immunology

## Microbiology

* Day 1, 4/29/25
	+ AM
		- Microbes causing pharyngitis
		- Microbes causing meningitis
	+ PM
		- Microbes causing pneumonia
* Day 2, 4/30/25:
	+ AM
		- Microbes causing gastrointestinal infections
		- Microbes causing cutaneous diseases
	+ PM
		- Microbes causing genitourinary infections
		- Microbes causing carditis

## Pharmacology

* Day 1, 5/6/25
	+ Section 1 - General Principles
	+ Section 2 - Autonomic Pharmacology
	+ Section 3 - Cardiac and Renal Pharmacology
* Day 2, 5/7/25
	+ Section 4 - CNS Pharmacology
	+ Section 5 - Antimicrobial Agents
	+ Section 6 - Drugs for Inflammatory and Related Disorders
* Day 3, 5/8/25
	+ Section 7 - Drugs Used in Blood Disorders
	+ Section 8 - Endocrine Pharmacology
	+ Section 9 - Anticancer Drugs, Immunopharmacology, and Toxicology

## Patho-Physiology

* Day 1, 5/12/25
	+ AM: General Pathology foundations/mechanisms
		- Chap 2 Cell injury and adaptation (pp 6-13): Cell injury, Necrosis, Apoptosis, Cell adaptation
		- Chap 3 Inflammation (pp 15-21): Acute, chronic, granulomatous inflammation
		- Chap 4 Tissue repair (pp 23-25): Regeneration, Wound healing
		- Chap 8 Amyloidosis (p 63-64)
		- Chap 5 Circulatory Path (pp 27-36):
			* Edema (includes Physio Chap 1 p13)
			* Coagulation, Bleeding disorders,
			* Thrombosis (includes Physio Part IV cardiovascular p79), DIC, Embolism
			* Shock (includes Physio Part IV arterial pressure regulation p93-96)
		- Start Chap 11: Red blood cell pathology (pp 87-96): Anemias (microcytic, normocytic, macrocytic), polycythemias
			* Includes Physio Part V p 163-65: Hb oxygen dissociation curves; High altitudes p 172-73
			* Microcytic anemia Iron deficiency, Anemia of chronic disease, Thalassemia
			* Normocytic anemia: Hemolytic anemia, Sickle cell anemia, Hemoglobin C, Glucose 6-phosphate dehydrogenase, Immune hemolytic anemia, Paroxysmal nocturnal hemoglobinuria
	+ PM: Vascular, Cardiac
		- Finish Chap 11
		- Chap 12: Vascular (pp 97-101): Vasculitides, Raynaud, Arteriosclerosis, Aneurysm
		- Physio Part II Chap 3 p 43, 48-59: Electrocardiology & ECG alterations
		- Chap 13: Cardiac (pp 105-96):
			* Ischemic heart disease, Heart failure (includes pulmonary edema (Physio Part I p14) Contractility Part IV p85)
			* Valvular disease (correlate with Physiology Part IV Cardiac cycle and valve disease p 119-129)
			* Myocarditis, Congenital heart disease
			* Cardiomyopathy (includes Physio Part IV p90-92)
* Day 2, 5/13/25
	+ AM: Organ systems
		- Chap 14 Respiratory (pp 120-133):
			* Pulmonary infections
			* Obstructive/Restrictive lung disorders (includes Physio Part V p 152-54)
			* Cystic fibrosis (Pathology Genetics Chap 6 p43)
			* Pneumoconiosis, Pulmonary Tumors
		- Chap 15 Renal (pp 139- 153):
			* Review Physio Part VI p 189-93, 196-99, 215-17, 232-33
			* Nephritic/Nephrotic syndromes, Acute kidney injury (Tubular necrosis), Interstitial nephritis,
			* Renal artery stenosis, Renal papillary necrosis,
			* Renal tumors, Hydronephrosis, Bladder tumor
		- Chap 16 GI (pp 155-165):
			* Esophagitis, Acute vs Chronic Gastritis, Gastric tumors, Celiac disease, Whipple disease, Inflammatory bowel disease, Colon neoplasia
		- Correlate with Physio Part VIII p 388--92
	+ PM: Organ systems
		- Chap 17 Pancreas (p 167-69):
			* Acute vs chronic pancreatitis, pancreatic cancer, islet cell tumors, diabetes; Correlate with Physio Part VII p 297-311
		- Chap 18 Gallbladder, biliary (pp 171):
			* Gallstones, Cholecystitis
		- Chap 19 Liver (pp 175-181):
			* Jaundice, Cirrhosis, Viral hepatitis (include HepBvirus serology), Alcoholic liver disease, Metabolic conditions (Wilson, Hemochromatosis, Alpha 1-antitrypsin, Reye, Non-alcoholic liver disease), Budd-Chiari syndrome, Liver Tumors
		- Correlate with Physio Part VIII p 393-95
* Day 3, 5/14/25
	+ AM: Organ systems
		- Chap 20 Central Nervous system (pp 185- 203):
			* Meningitis, Encephalitis, Prion disease, Cerebrovascular disease, Degenerative disorders (Parkinson, Huntington, Alzheimer, Lewy body dementia), CNS tumors
		- Chap 21 White cell (pp 208-216):
			* Lymphoma, Leukemia
		- Start Chap 25 Endocrine (pp 243-250):
			* Thyroid, Parathyroid, Pituitary, Adrenal endocrine conditions and tumors. Brief mention of congenital adrenal hyperplasia
		- Review Physio Part VII p 258-95, 313-50
	+ PM: Organ systems
		- Finish Chap 25
		- Chap 22 Female pathology (p 221-30):
			* HPV & Cervical dysplasia, carcinoma, Menstrual cycle (Physio Part VII p 361-75), Endometrial hyperplasia & carcinoma, Ovarian tumors;
		- Chap 24 Male pathology (p 238-39):
			* Testes non-neoplastic conditions and neoplasms. Brief mention of Kallman syndrome, 5-alpha reductase deficiency
		- (If time permits): Chap 26 & 27 Bone & Joint pathology (pp 253-262); Osteoporosis, Bone tumors; Arthritis

## Biochemistry/Medical Genetics

* Day 1, 5/19/25
	+ Enzyme Kinetics
	+ Transport Kinetics
	+ Hormones (Glucagon and Insulin)
	+ Overview of Energy Metabolism
	+ Glycolysis
	+ Diabetes and Glycolysis
	+ Galactose and Fructose Metabolism
	+ TCA Cycle and Electron Transport Chain
	+ Glycogen
	+ Glycogen Storage Diseases
	+ Gluconeogenesis
	+ Alcohol Metabolism
* Day 2, 5/20/25
	+ Hexose Monophosphate Shunt
	+ Lipid Synthesis and Storage
	+ Hyperlipidemias
	+ Lipid Mobilization and Catabolism
	+ Nitrogen Metabolism and Urea Cycle
	+ Amino Acid Metabolism
	+ Bilirubin Metabolism
* Day 3, 5/21/25
	+ Single-Gene disorders
	+ Autosomal Dominant/Recessive
	+ Hardy-Weinberg Mathematics/Population Genetics
	+ Cytogenetics/Chromosomal Abnormalities
	+ Recombination Frequency
	+ Genetic Diagnosis