



Jordan University of Science and Technology
Faculty of Medicine
Doctor Of Medicine (Md) Department

MED311 Gastro-Intestinal System

Second Semester 2022-2023

Course Catalog

6 Credit Hours. Interdisciplinary integrative course which explores fundamental concepts of biochemistry, anatomy, histology, physiology, nutrition and public health problems, pathology, pharmacology, and microbiology as they relate to issues and common diseases of gastrointestinal and hepatobiliary system. Clinical and therapeutic management of common GI problems are also explored. Teaching methods include lectures, small group discussions, and labs. The practical part of the course emphasizes the anatomy, pathology, and microbiology of the gastrointestinal (GI) tract. Small group discussions of common clinical problems are part of the teaching strategy of this module to enhance integration of basic sciences and clinical knowledge and students' self-directed learning. Various research activities will be conducted by the students in pre-specified topics to increase the student's awareness of the current concepts and novel developments in the field of gastrointestinal medicine and to emphasize social responsibility and community service.

Text Book

Title	Clinical Anatomy for Medical Students
Author(s)	Richard S. Snell
Edition	10th Edition
Short Name	Clinical Anatomy for Medical Students
Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
Grants Atlas of Anatomy	Grants Atlas of Anatomy	Anne M. R. Agur, Arthur F. Dalley	13th Edition	
Basic Histology	Basic Histology	Luis Carlos Junqueira, Jose Carneiro	10th Edition	
Before We Are Born	Before We Are Born	Keith L. Moore, T.V.N. Persaud, and Mark G. Torchia	10th Edition	

Guyton and Hall Textbook of Medical Physiology	Guyton and Hall Textbook of Medical Physiology	John E. Hall & Michael E. Hall	14th Edition	
Human Physiology: From Cells to Systems	Human Physiology: From Cells to Systems	Lauralee Sherwood	9th Edition	
Textbook of Biochemistry with Clinical Correlations	Textbook of Biochemistry with Clinical Correlations	Thomas M. Devlin	7th Edition	
Robbins Pathology	Robbins & Kumar Basic Pathology	Vinay Kumar, Abul K. Abbas, Jon C. Aster, Andrea T Deyrup	11th Edition	
Sherris Medical Microbiology : An Introduction to Infectious Diseases	Sherris Medical Microbiology : An Introduction to Infectious Diseases	C. Ray, Kenneth J. Ryan	4th Edition	
Rang & Dale's Pharmacology	Rang & Dale's Pharmacology	James M. Ritter, Rod J. Flower, Graeme Henderson, Yoon Kong Loke, David MacEwan, Emma Robinson, James Fullerton	10th Edition	
Lippincott Illustrated Reviews: Pharmacology	Lippincott Illustrated Reviews: Pharmacology	Karen Whalen	8th Edition	
Goodman and Gilman's The Pharmacological Basis of Therapeutics	Goodman and Gilman's The Pharmacological Basis of Therapeutics	Laurence L. Brunton, Bj?rn C. Knollmann	14th Edition	

Instructor	
Name	Dr. Lina Elsalem
Office Location	M6L0
Office Hours	
Email	lmelsalem@just.edu.jo

Class Schedule & Room
<p>Section 1: Lecture Time: Sun, Tue : 11:30 - 12:30 Room: مدرج د. سعد حجازي</p> <p>Section 2: Lecture Time: Mon, Wed : 08:30 - 09:30 Room: مدرج د. سعد حجازي</p> <p>Section 3: Lecture Time: Sun, Tue : 08:30 - 09:30 Room: MIDDLE HALL</p> <p>Section 4: Lecture Time: Mon, Wed : 11:30 - 12:30 Room: MIDDLE HALL</p>

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	1. The oral cavity and salivary glands (Anatomy)	From Clinical Anatomy for Medical Students , From Grants Atlas of Anatomy , From Basic Histology
Week 1	2. Salivary secretion, swallowing and esophageal motility (Physiology)	From Guyton and Hall Textbook of Medical Physiology , From Human Physiology: From Cells to Systems
Week 1	3. Diseases of the oral cavity (Pathology)	From Robbins Pathology
Week 1	4. The pharynx and esophagus (Anatomy)	From Clinical Anatomy for Medical Students , From Grants Atlas of Anatomy , From Basic Histology
Week 1	5. Diseases of the esophagus (Pathology)	From Robbins Pathology
Week 1	6. The abdominal cavity and peritoneum (Anatomy)	From Clinical Anatomy for Medical Students , From Grants Atlas of Anatomy , From Basic Histology
Week 1	7. Anatomy of GI tract hollow organs: stomach and small and large intestines (Anatomy)	From Clinical Anatomy for Medical Students , From Grants Atlas of Anatomy , From Basic Histology
Week 1	8. Gastric and intestinal secretions (Physiology)	From Guyton and Hall Textbook of Medical Physiology , From Human Physiology: From Cells to Systems
Week 1	9. Histology of GI tract hollow organs (Anatomy)	From Clinical Anatomy for Medical Students , From Grants Atlas of Anatomy , From Basic Histology
Week 1	10. Diseases of the stomach; gastritis and peptic ulcer (Pathology)	From Robbins Pathology
Week 2	1. Bacterial infections of GI tract I (Microbiology)	From Sherris Medical Microbiology : An Introduction to Infectious Diseases
Week 2	1. Drugs used in peptic ulcer disease (Pharmacology)	From Rang & Dale's Pharmacology , From Lippincott Illustrated Reviews: Pharmacology , From Goodman and Gilman's The Pharmacological Basis of Therapeutics

Week 2	3. Bacterial infections of GI tract II (Microbiology)	From Sherris Medical Microbiology : An Introduction to Infectious Diseases
Week 2	4. Anatomy of the Anterolateral Abdominal Wall (Anatomy)	From Clinical Anatomy for Medical Students , From Grants Atlas of Anatomy , From Basic Histology
Week 2	5. Gastric and intestinal motility (Physiology)	From Guyton and Hall Textbook of Medical Physiology , From Human Physiology: From Cells to Systems
Week 2	6. Antiemetics and drugs affecting gastric motility (Pharmacology)	From Rang & Dale's Pharmacology , From Lippincott Illustrated Reviews: Pharmacology , From Goodman and Gilman's The Pharmacological Basis of Therapeutics
Week 2	7. The inguinal region and abdominal hernias (Anatomy)	From Clinical Anatomy for Medical Students , From Grants Atlas of Anatomy , From Basic Histology
Week 2	8. Parasitic infections of GI tract (Microbiology)	From Sherris Medical Microbiology : An Introduction to Infectious Diseases
Week 2	9. Gastrointestinal tumors I (Pathology)	From Robbins Pathology
Week 2	10. Anatomy of accessory digestive organs: liver, pancreas, and gallbladder (Anatomy)	From Clinical Anatomy for Medical Students , From Grants Atlas of Anatomy , From Basic Histology
Week 3	1. Histology of the digestive accessory organs I: salivary glands and pancreas (Anatomy)	From Basic Histology
Week 3	2. Histology of the digestive accessory organs II: liver and gall bladder (Anatomy)	From Basic Histology
Week 3	3. Pancreatic, liver, and biliary secretion (Physiology)	From Guyton and Hall Textbook of Medical Physiology , From Human Physiology: From Cells to Systems
Week 3	4. Digestion and absorption in GI tract (Physiology)	From Guyton and Hall Textbook of Medical Physiology , From Human Physiology: From Cells to Systems
Week 3	5. Diseases of the intestines I (malabsorption (inflammatory bowel diseases) (Pathology)	From Robbins Pathology
Week 3	6. Diseases of the intestine II (ischemic bowel disease, bowel obstruction and inflammatory bowel diseases) (Pathology)	From Robbins Pathology

Week 3	7. Management of inflammatory bowel diseases (Pharmacology)	From Rang & Dale's Pharmacology , From Lippincott Illustrated Reviews: Pharmacology , From Goodman and Gilman's The Pharmacological Basis of Therapeutics
Week 3	8. Introduction to liver diseases Cholestasis and cirrhosis (Pathology)	From Robbins Pathology
Week 3	9. Embryology of the Digestive System (Anatomy)	From Before We Are Born
Week 3	10. Viral infections of GI tract (Microbiology)	From Sherris Medical Microbiology : An Introduction to Infectious Diseases
Week 4	1. Gastrointestinal tumors II (Pathology)	From Robbins Pathology
Week 4	2. Anti-cancer drugs (Pharmacology)	From Rang & Dale's Pharmacology , From Lippincott Illustrated Reviews: Pharmacology , From Goodman and Gilman's The Pharmacological Basis of Therapeutics
Week 4	3. Liver function tests and detoxification (Biochemistry)	From Textbook of Biochemistry with Clinical Correlations
Week 4	4. Hepatitis (Clinical Lecture)	
Week 4	5. Endoscopic procedures of GI tract (Clinical Lecture)	
Week 4	6. Pathology of the biliary tract (Pathology)	From Robbins Pathology
Week 4	7. Gallbladder diseases (Clinical Lecture)	
	8. Enzymes of the GI tract system (Biochemistry)	From Textbook of Biochemistry with Clinical Correlations
Week 4	9. Liver tumors & Diseases of exocrine pancreas (Pathology)	From Robbins Pathology
Week 4	10. Childhood malabsorption & IBD (Clinical Lecture)	
Week 5	1. Epidemiology and prevention of colorectal cancers (Public Health)	
Week 5	2. Clinical Case I	
Week 5	3. Clinical Case II	

Mapping of Course Outcomes to Program Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
---	--	--------------------------

To describe the gross structure and functional anatomy of each GI tract organ to understand [1PLO1, 1PLO2]	20%	
Recognize the microscopic appearance of different parts of the GI tract. [1PLO1, 1PLO3]	5%	

Relationship to Program Student Outcomes (Out of 100%)													
PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11	PLO12	PLO13	PLO14
12.5	10	2.5											

Evaluation	
Assessment Tool	Weight
Midterm	60%

Date Printed: 2024-01-27