Course Specification
Student version

Course Title:	Gastrointestinal System
Course Code:	GIS 306
Department:	Basic Medical Sciences
Program:	Bachelor of Medicine and Surgery
College:	Vision College in Riyadh
Institution:	Vision College in Riyadh
Revised:	June 2025

A. Course Identification

1. Credit hours: 5 (3+1+1)
2. Level/year at which this course is offered: Level 6/Year 3)
3. Pre-requisites for this course (if any): RES305, MEP305, HPS305, CVS305.
4. Co-requisites for this course (if any): None

B. Teaching Methods

1	Lectures
2	Practical Sessions
3	PBL

C. Course Description and Main objective

1. Course Description

This course is dedicated to cover all aspects related to basic medical sciences in the field of GIT and related organs with reference to clinical aspects whenever necessary. The overall objective of this course is to provide an integrative understanding of the structure and functions of the gastrointestinal tract and GI diseases with an initial general idea about how to diagnose and treat these disorders.

Students will apply their basic medical science knowledge to clinical problem-solving. The Gastrointestinal system course also aims to give the students both a broad overview of gastrointestinal diseases, infections, diagnostic studies and therapeutic options as well as detailed information regarding selected GI disorders. There are multiple organs involved in this system; some diseases will involve multiple organs and others unique to a particular organ. Along with the GI tract, this course includes the liver, exocrine pancreas and the salivary glands .

2. Course Main Objective:

The overall objective of this course is to provide an integrative understanding of the structure and function of the gastrointestinal tract.

3. Course Objectives

By the end of this course, students should be able to:

1. **Explain the normal anatomical and histological structure of the GIT and GIT accessory organs (Embryology, Anatomy and Histology.**
2. **Explain the normal functions of the GIT and GIT accessory organs (Physiology).**
3. **Explain the pathogenesis, epidemiology, etiology, pathophysiology, symptoms and signs, complications, investigations, and prognosis of various diseases of GIT and GIT accessory organs such as genetic, developmental, ischemic, metabolic, toxic, infectious, autoimmune, neoplastic, degenerative, and traumatic factors, and the ways in which they affect the body (Pathology).**
4. **Describe the common types of bacterial and viral infections and parasitic infestations that affect the GIT and explain types, clinical picture, mode of transmission and diagnosis of different types of viral hepatitis and the significance of liver enzymes in**

	its diagnosis (Microbiology, Virology).
5.	**Describe the treatment of gastroesophageal reflux disease (GERD), peptic ulcer disease (PUD), functional GI disorders, constipation, diarrhea, inflammatory bowel diseases (IBD) and the common types of bacterial and viral GIT infections and parasitic infestations (Pharmacology).**
6.	**Differentiate between the small and large intestines on anatomical basis (Anatomy, Histology).**
7.	**Demonstrate how materials are propelled through the G.I. tract and the mechanisms of swallowing, vomiting, gastric emptying, intestinal movements and the defecation reflex (Physiology).**
8.	**Explain the mechanisms of common GIT disorders and apply the basic pathologic criteria to classify G.I. neoplasms, explain their molecular basis, and designate their etiologic factors (Pathology).**
9.	**Differentiate between various pathological conditions of the liver, apprehend the pathophysiological basis and outcome of cholesterol and bilirubin gall stone formation, postulate etiologic factors and the mechanisms of pancreatitis, and describe the pathology of the common disorders of exocrine pancreas and salivary glands (Pathology).**
10.	**Explain the mechanism of action and indications of different antiemetic, prokinetic drugs and medications used for treatment of peptic ulcer, inflammatory bowel diseases and hepatic failure (Pharmacology).**
11.	**Interview a patient suffering from a GI problem and list the relevant clinical presentations, critically analyze clinical data obtained through history, physical examination, imaging and investigation (Clinical pathology/Internal medicine).**
12.	**Interpret and give decisions about anatomical, histological and pathological gross or microscopic specimens/images/slides provided in practical activities (Practical) and solve medical problems presented in PBL sessions (Multidiscipline).**
13.	**Develop the teamwork and inter-professional collaboration and demonstrate commitment to lifelong learning using biomedical information resources, improve descriptive capabilities and ability to solve medical problems.**
14.	**Use the light microscope efficiently to interpret histological and pathological tissue sections.**
15.	**Obtain an accurate and comprehensive medical history and perform systematic physical examination of a patient suffering from a GI problem and apply the findings to suspect diagnosis (Internal medicine).**

D. Course Content

No.	List of Topics
1	Anatomy, histology and development of abdominal wall, fore-gut, mid-gut and hind-gut (30 hours)
2	Physiology of GIT and GIT associated organs (7 hours)
3	Pathology and treatment of disorders affecting GIT and GIT associated organs (28 hours)
4	Microbiology and virology of organisms commonly infecting the GIT and GIT associated organs (4 hours)

5	Clinical aspects (PBL) related to GIT and GIT associated organs (36 hours)

E. Assessment tools

#	Assessment task	Percentage of Total Assessment Score
1	PBL Evaluation	10%
2	Quizzes	10%
3	Mid-term Exam	20%
4	Final Written Exam	40%
5	Final Practical Exam (OSPE &OSCE)	20%
	Total	**100%**

F. Learning Resources

Required Textbooks	**1) Junqueira's Basic Histology: Text and atlas, 15th edition, 2013.** **2) Guyton Physiology 12th edition. ISBN-13: 978-1416045748, ISBN-10: 1416045740** **3) Lippincott's Illustrated Reviews: Microbiology, 3rd edition (2013)** **4) Katzung B, Trevor A (Editors): Basic and Clinical Pharmacology, 13th Ed., Lange, 2015.**
Essential Reference Material	**1) Nelson Essentials of Pediatrics. Robert Kleighman and Richard Behrman, 18th edition. Saunders, 2018**
Electronic Material	**LMS resources**