**T.C.**

**ATILIM UNIVERSITY FACULTY OF MEDICINE**

**EDUCATION IN 2025-2026 ACADEMIC YEAR**

**ACADEMIC CALENDAR**

**Laboratory Lessons:**

1. Temporal region, the temporomandibular joint- and the muscles of mastication and oral cavity (Dr. Öktem)
2. The anterior abdominal wall and inguinal canal, the peritoneum, lesser and greater omenta, omental burs (Dr. Öktem)
3. Mouth, esophagus, stomach (Dr. Aykanat)
4. Esophagus, stomach and the small and large intestines (Dr. Öktem)
5. The liver, biliary ducts, pancreas (Dr. Öktem)
6. Liver, gallbladder, pancreas (Dr. Aykanat)
7. The vessels, nerves of the digestive tract and portal system the posterior abdominal wall and the great vessels (Dr. Öktem)
8. Esophagus, stomach, intestines (Dr. Aydın)
9. Liver, pancreas (Dr. Aydın)
10. Anatomy Review (Dr. Öktem)
11. Intestinal Parasites (Dr. Usluca)
12. Clinical Skills: Naso-gastric catheter (Dr. Bozdereli Berikol)

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| **COMMITTEE NAME** | **STARTING DATE** | **COMPLETION DATE** |
| **MED 301** | **22.09.2025** | **31.10.2025** |
| MED 303 | 03.11.2025 | 12.12.2025 |
| MED 305 | 15.12.2025 | 09.01.2026 |

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|  | **MED 301** | **MED 303** | **MED 305** |
| **ANATOMY PRACTICAL EXAM DATE** | 30.10.2025 |  |  |
| **CLINICAL SKILL EXAM** | 30.10.2025 |  |  |
| **COMMITTEE EXAM DATE** | 30.10.2025 |  |  |

**MED 301 DIGESTIVE SYSTEM COMMITTEE**

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| **PHASE III COORDINATOR** | Prof. Dr. Yekbun ADIGÜZEL |
| **CHAIRMAN OF THE MED 301 COMMITTEE** | Asst. Prof. Dr. Gülin ÖZCAN |
| **MED 301 COMMITTEE DATE RANGE** | **22.09.2025**- **31.10.2025** |
| **ACADEMIC STAFF AT THE MED 301 COMMITTEE** | Prof. Dr. Necla TÜLEK – Medical Microbiology & ImmunologyProf. Dr. Nedret KILIÇ – Medical BiochemistryProf. Dr. Yekbun ADIGÜZEL – Medical BiologyProf. Dr. Nasuhi AYDIN- PathologyAssoc. Prof. Dr. Hale ÖKTEM – AnatomyAssoc. Prof. Dr. Selma USLUCA - Medical MicrobiologyAssoc. Prof. Dr. Nuriye Ezgi BEKTUR AYKANAT- Histology and EmbryologyAssoc. Prof. Dr. Göksu BOZDERELİ BERİKOL- Emergency MedicineAsst. Prof. Dr. Gülin ÖZCAN KUYUCU- Medical MicrobiologyAsst. Prof Dr. Badegül SARIKAYA – PhysiologyAsst. Prof Dr. Sami EREN –Medical PharmacologyAsst. Prof Dr. Melike EROL DEMİRBİLEK- BiochemistryAsst. Prof Dr. Özge BOYACIOĞLU - Biochemistry  |
|  | **THEORETICAL LECTURE TIME** | **PRACTICAL LECTURE TIME** | **INTERACTIVE EDUCATION****TIME** | **TOTAL TIME** |
| **Anatomy** | 14 | 6 | - | 20 |
| **Histology and Embryology** | 7 | 2 | - | 9 |
| **Microbiology-Immunology** | 21 | 1 | - | 22 |
| **Medical Pharmacology** | 5 | - | - | 5 |
| **Medical Biochemistry** | 10 | - | - | 10 |
| **Medical Pathology** | 9 | 2 |  | 11 |
| **Physiology** | 10 | - | - | 10 |
| **Medical Genetics** | 3 | - | - | 3 |
| **Medical Informatics** | - | - | 3(Clinical Skills)  | 3 |
| **Problem-Based Learning** | - | - | 6 | 6 |
| **TOTAL** | 79 | 11 | 9 | 99 |

**Advisor Visit**

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| **CONTENT OF THE MED 301 COMMITTEE**  |
| Anatomy and histology of oral cavity; sections the abdominal wall and organs in these regions; anatomy and histology of digestive tracts; anatomy and histology of digestive system glands (liver, bile duct, pancreas); the vessels of the digestive track; clinical anatomy of canalis inguinalis and canalis femoralis; peritoneum; development of gastrointestinal organs; chewing, swallowing, salivation mechanisms; mechanism of digestion and absorption of nutrients; the gastric motility, secretion and emptying mechanisms; secretion and movements of large intestine and defecation mechanism; liver physiology; secretion of liver and pancreas, and regulaton of secretion; microorganisms located in the digestive system; microorganisms causing infection in the digestive system; food poisonings and mycotoxins; methods of parasite examination in faeces; antihelmintics and ectoparasiticides; antiprotozoal drugs; approach to patient with digestive system problem; abdominal normal radiological anatomy and evaluation algorithm; esophagus diseases; stomach and duodenum diseases; small intestinal diseases; large intestinal diseases; drugs used in peptic ulcer; antiemetic drugs; laxatives and antidiarrheics; gastrointestinal system bleedings; approach to patient with hepato-splenomegaly; approach to the patient with ascites; portal hypertension; approach to the patient with jaundice; approach to the patient with jaundice in term of infectious diseases; liver diseases; diseases of bile ducts and gallbladder; pancreatic diseases |
| **MED 301 COMMITTEE'S AIM** |
| To gain knowledge about the development, structure and functions, disorders, diagnosis and drugs of the digestive system, to give information about symptoms and findings of disorders related to the system to provide basic medical skills. |
| **MED 301 COMMITTEE LEARNING OBJECTIVES** |
| 1. Lists the digestive system organs.
2. Describes the anterior abdominal wall and the inguinal canal.
3. Describes the location and function of the peritoneum.
4. Defines retroperitoneal and names the retroperitoneal organs.
5. Describes the function of the digestive system.
6. Describes stimuli and controls of digestive activity.
7. Defines the circulation of the digestive system organs.
8. Describes the macroscopic and microscopic anatomy and the basic functions of the mouth, salivary glands, pharynx, and esophagus.
9. Describes the composition and functions of saliva and explains how salivation is regulated.
10. Defines the masticatory muscles and explains the mechanisms of chewing and swallowing.
11. Defines the structure of the stomach.
12. Defines the cell types responsible for secreting the various components of gastric juice.
13. Defines the structure of the small intestine and identifies its structural modifications that enhance the digestive process.
14. Differentiates between the various cell types of intestinal mucosa.
15. Describes the function of local intestinal hormones and paracrine.
16. Describes the macroscopic and microscopic structure of the liver and bile ducts.
17. Describes the secretion of bile and the role of bile and gallbladder.
18. Describes the role of pancreatic juice in digestion.
19. Describes the structure and functions of the large intestine.
20. Describes the regulation of defecation.
21. Lists the enzymes involved in digestion.
22. Describe the major enzymes and locations involved in the digestion of carbohydrates, proteins, and lipids.
23. Explain the specific mechanisms by which the final products of digestion (monosaccharides, amino acids, fatty acids, and glycerol) are absorbed across the intestinal wall.
24. Discuss the role of bile salts in lipid digestion and the formation of chylomicrons for lipid transport.

Relate deficiencies in digestive enzymes to common clinical conditions.1. Identify the different types of transporters responsible for amino acid uptake from the intestinal lumen into enterocytes.
2. Explain how amino acids are transported across cell membranes and into the bloodstream.
3. Describe the role of sodium-dependent co-transport systems in amino acid absorption.
4. Discuss the clinical significance of defects in amino acid transporters, such as in Hartnup disease or cystinuria.
5. Outline the process of nucleic acid digestion in the gastrointestinal tract.
6. Identify the key enzymes involved in digestion of nucleic acids.
7. Explain how nucleic acids are broken down into nucleotides, nucleosides, and nitrogenous bases.
8. Describe the de novo synthesis and salvage pathways for both purine and pyrimidine nucleotides.
9. Identify the key regulatory enzymes in purine and pyrimidine metabolic pathways.
10. Explain the catabolism of purines and pyrimidines and the final end products.
11. Discuss the clinical consequences of metabolic defects in these pathways, such as gout.
12. Define a xenobiotic and explain why their metabolism is crucial for detoxification.
13. Describe the two phases of xenobiotic metabolism.
14. Identify the key enzyme families involved, particularly the cytochrome P450 (CYP) enzymes.
15. Explain how these metabolic processes make xenobiotics more water-soluble for excretion.
16. Discuss the clinical relevance of xenobiotic metabolism.
17. Describes embryonic development of the digestive system.
18. Defines the gastrointestinal mucosal barrier.
19. Lists the infectious agents of digestive system, and describes their virulence, microbiological and epidemiological properties.
20. Explains the mechanisms of the diseases caused by the infectious agents and the methods of protection from these diseases.
21. Describes the role of the gut microbiome in gastrointestinal diseases.
22. Describes the sample management for microbiological diagnosis and microbiological diagnostic methods of infection agents and interprets the results.
23. Describes the mechanism and causes of the common symptoms of the digestive system (nausea, vomiting, swallowing difficulty, reflux, dyspepsia, diarrhea, constipation).
24. Explains the mechanisms and causes of jaundice.
25. Diescribes the basic occupational skills for the digestive system.
26. Explains etiologic factors, physiopathologic mechanisms, morphologic types involved in oral cavities, esophagus, stomach, bowel, liver, gallbladder and pancreatic disorders.
27. Describes physiopathologic mechanisms and morphologic changes.
28. Explain the importance of these mechanisms’ development in disease processes.
29. Describes and classifies the drugs used in the treatment of digestive diseases.
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| **BOOKS RECOMMENDED**1. Gray’s Anatomy. Editor: Susan Standring, 41st Edition, 2015, Elsevier
2. Gray’s Anatomy for Students (3rd Edition); Richard L. Drake, A. Wayne Vogl, Adam W. M. Mitchell; Churchill Livingston Elsevier, Philadelphia, 2015.
3. Atlas of human anatomy / |c Frank H. Netter, MD; consulting editors Carlos A. Machado; lead editor John T. Hansen, Brion Benninger, Jennifer Brueckner-Collins, Todd M. Hoagland, R. Shane Tubbs,2018
4. Guyton and Hall Textbook of Medical Physiology (13th Edition); John E. Hall; Elsevier, Philadelphia, 2016.
5. Histology: A Text and Atlas with Correlated Cell and Molecular Biology (7th Edition); Micheal H. Ross, Wojciech Pawlina; Lippincott Williams & Wilkins, 2015.
6. Kaplan and Sadock's Comprehensive Textbook of Psychiatry (10th Edition); Benjamin J. Sadock, Virginia Alcott Sadock, Pedro Ruiz; Lippincott Williams & Wilkins, Philadelphia, 2017.
7. Medical Microbiology (7th Edition); Patrick Murray, Ken Rosenthal, Michael Pfaller; Elsevier Saunders, Philadelphia, 2013.
8. Molecular and Cellular Biophysics; Meyer B. Jackson; Cambridge University Press, Cambridge, 2006.
9. Robbins Basic Pathology (10th Edition); Vinay Kumar, Abul K. Abbas, Jon C. Aster; Elsevier Saunders, Philadelphia, 2018.
10. Understanding Pathophysiology First Canadian Ed. 2018 by Elsevier Inc. Sue Huether; Kelly Power Kean; Mohamed El Hussein.
11. Pathophysiology of Diseases: An introduction in clinical medicine 8 ed. 2019 by McGraw-Hill Education; Lange Inc. Gary D. Hammer, MD, PhD Stephen J. McPhee, MD.
12. Pathophysiology: The biologic basis for diseases in adults and children 8th ed. 2019 by Elsevier Inc. Kathryn L. McCance, MS, PhD Sue E. Huether, MS, PhD Valentina L. Brashers, Neal S. Rote, PhD.
13. Rapid Review Pathology, Fifth Edition 2019 by Elsevier, Inc. Edward F. Goljan, MD.
14. Lehninger Principles of Biochemistry, 8th Edition, David L. Nelson, Michael M. Cox. W.H. Freeman & Company, 2021.
15. Lippincott® Illustrated Reviews: Biochemistry, 9th Edition, North American Edition. Emine Ercikan Abali, Susan D. Cline, David S. Franklin, Dr. Susan M. Viselli, 2025.
16. Peter J. Kennelly, Kathleen M. Botham, Owen McGuinness, Victor W. Rodwell, P. Anthony Weil - Harper's Illustrated Biochemistry-McGraw Hill, 2022.
17. John W. Baynes PhD, Marek H. Dominiczak Dr Hab Med FRCPath (Editor), Medical Biochemistry, 6th Edition, Elsevier, 2022.
18. Tietz Fundamentals of Clinical Chemistry and Molecular Diagnostics (Tietz Textbook of Clinical Chemistry and Molecular Diagnostics) 9th Edition, Nader Rifai PhD (Editor), 2023.
19. The Developing Human: Clinically Oriented Embryology (10th Edition); Keith L. Moore, T. V. N. Persaud, Mark G. Torchia; Elsevier, Philadelphia, 2015
20. Harrison's Gastroenterology and Hepatology, 3rd Edition, Dennis Kasper, Anthony Fauci, Stephen Hauser, Dan Longo
21. Textbook of Clinical Gastroenterology and Hepatology 2nd Edition, C. J. Hawkey, Jaime Bosch, Joel E. Richter, Guadalupe Garcia-Tsao, Francis K. L. Chan
22. Current Diagnosis & Treatment Gastroenterology, Hepatology, & Endoscopy, Third Edition (Lange Current) 3rd Edition, Norton Greenberger, Richard Blumberg, Robert Burakoff
23. Sleisenger and Fordtran's Gastrointestinal and Liver Disease, Mark Feldman MD, Lawrence S. Friedman MD, Lawrence J. Brandt MD
24. Medical Microbiology (9th Edition); Patrick Murray, Ken Rosenthal, Michael Pfaller; Elsevier Saunders, Philadelphia, 2020.
25. Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases. John Bennett Raphael Dolin Martin J. Blaser. 9 th edition., 2019
26. Jawetz, Melnick, & Adelberg's Medical Microbiology, 28e, McGraw-Hill Education, 2019
27. Apurba S Sastry, Sandhya Bhat, Essentials of Medical Microbiology, 3rd Edition, Jaypee Brothers Medical Publishers, New Delhi | London, 2021.
28. Netter’s Infectious Diseases, Elaine C. Jong, Dennis L. Stevens, Elsevier, 2nd Edition, 2022.
29. Sherris &Ryan’s Medical Microbiology, Kenneth J. Ryan, 9th Edition, McGraw Hill / Medical, 2022.
30. Katzung's Basic and Clinical Pharmacology (Ed. Todd W. Vanderah),16th Edition, McGraw Hill Lange, 2023.
31. Basic and Clinical Pharmacology (Ed. Katzung BG, Masters SB, Trevor AJ), 12th Edition, McGraw Hill Lange, 2012.
32. Goodman and Gilman's The Pharmacological Basis of Therapeutics (Eds: L. Brunton,‎ B. Knollmann, R. Hilal-Dandan), 14th Edition, McGraw Hill, 2022.
33. Goodman & Gillman’s The Pharmacological Basis of Therapeutics (Ed. Brunton LL, Hilal-Dandan R, Knollmann BC), 13th Edition, McGraw-Hill Education, 2018.
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| **MED 301 COMMITTEE EXAM WEEK** |
| **DATE** | **EXAM NAME** | **EXAM HOUR** |
| 30.10.2025 | MED 301 Committee Exam | 09:30-12:00 |
| 30.10.2025 | MED 301 Practical Exam | 13.30-16.20 |
| 30.10.2025 | MED 301 Clinical Skill Exam | 13.30-16.20 |
| **Teaching Methods and Techniques** |

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| ☒ Lecture | ☒ Case based learning | ☐ Case discussion | ☐ Student presentation |
| ☒ Discussion | ☒ Problem based learning | ☐ Project | ☐ Homework |
| ☐ Role playing | ☐ Lab report  | ☒ Self-learning | ☒ Laboratory practice |
| ☐ Online education | ☒ Clinical skill | ☐ Team based learning | ☐ Flip class-based learning |

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| **Evaluation Method** | Theoretical exam (82%), Practical Exam (Anatomy) (8%), Problem Based Learning (5%), Clinical Skills Exam (5%) |
| **Lesson Language** | English |