

GAZI UNIVERSITY FACULTY OF MEDICINE

YEAR 2

2022-2023 EDUCATIONAL YEAR

DIGESTIVE SYSTEM AND METABOLISM COMMITTEE

(30.12.2022 – 10.03.2023)

COURSES	THEORETICAL	LAB	TOTAL
Anatomy	26	10x2	36
Biophysics	8	-	8
Physiology	22	2x4	24
Histology and Embryology	12	10x2	22
Medical Biochemistry	44	12x2	56
<b>TOTAL</b>	<b>112</b>	<b>34</b>	<b>146</b>
Elective Courses	12		12
<b>INTRODUCTION TO MEDICINE</b>			
Problem Based Learning (PBL)	12		12
Clinical Skills Education (CSE)		2	2
Medical English	6		6
<b>TOTAL</b>	<b>142</b>	<b>36</b>	<b>178</b>

08.03.2023	WEDNESDAY	YEAR II APPLIED EXAM	Time: 08.30
09.03.2023	THURSDAY	YEAR II APPLIED EXAM	Time: 08.30
10.03.2023	FRIDAY	YEAR II THEORETICAL EXAM	Time: 09.30

Dean	Prof. Dr. Mustafa Necmi İLHAN
Vice Dean	Prof. Dr. İlyas OKUR
Vice Dean	Prof. Dr. Özlem GÜZEL TUNÇCAN
Head Coordinator	Prof. Dr. Çiğdem ÖZER
Assistant Head Coordinator	Prof. Dr. Akif Muhtar ÖZTÜRK
Assistant Head Coordinator (ENG)	Prof. Dr. Mehmet Ali ERGÜN
Year II Coordinator	Assist. Prof. Dr. S. Esra ÖZKOÇER
Assistant Year II Coordinator (ENG)	Assist. Prof. Dr. Zeynep YİĞMAN
Assistant Year II Coordinator	Teach. Assist. Dr. Pelin TÜRKKAN
Assistant Year II Coordinator	Teach. Assist. Dr. Nihan ÖRÜKLÜ

**COMMITTEE MEMBERS**

<b>ANATOMY</b>	<b>HISTOLOGY &amp; EMBRYLOGY</b>	<b>PHYSIOLOGY</b>	<b>BIOPHYSICS</b>	<b>MEDICAL BIOCHEMISTRY</b>
Dr. Meltem BAHÇELİOĞLU	Dr. Zeynep YIĞMAN	Dr. Şevin GÜNEY	Dr. Bahriye SIRAV ARAL	Dr. Neslihan BUKAN
Dr. Kerem ATALAR	Dr. S. Esra ÖZKOÇER	Dr. A. Meltem SEVGİLİ		Dr. Orhan CANBOLAT
	Dr. Duygu DAYANIR			Dr. Aylin SEPİCİ DİNCEL
				Dr. Mustafa KAVUTÇU
				Dr. Cengiz KARAKAYA
				Dr. Kübranur ÜNAL

<b>ANATOMY LABORATORY</b>	<b>HISTOLOGY &amp; EMBRYLOGY LABORATORY</b>	<b>PHYSIOLOGY LABORATORY</b>	<b>MEDICAL BIOCHEMISTRY LABORATORY</b>
Dr. Meltem BAHÇELİOĞLU	Dr. Çiğdem ELMAS	Dr. Şevin GÜNEY	Dr. Cengiz KARAKAYA
Dr. Kerem ATALAR	Dr. Gülnur TAKE KAPLANOĞLU	Dr. A. Meltem SEVGİLİ	Dr. Kübranur ÜNAL
	Dr. C. Merve SEYMEN	Dr. Pelin TÜRKKAN	
	Dr. Zeynep YIĞMAN		
	Dr. Duygu DAYANIR		
	Dr. S. Esra ÖZKOÇER		

<b>Clinical Skills Education Coordinator</b>	Prof. Dr. Melda AYBAR TÜRKOĞLU
<b>Elective Course Coordinator</b>	Assoc. Prof. Dr. Ergin DİLEKÖZ
<b>Problem Based Learning Coordinator</b>	Assoc. Prof. Dr. Özlem COŞKUN

## **DIGESTIVE SYSTEM AND METABOLISM COMMITTEE**

### **Objective:**

Should be able to tell the embryonic development, developmental anomalies and malformations of the structures related to the digestive system, the anatomical and histological structure of the digestive system, the physiological functions and establish the connections with the clinic. Should be able to explain biochemical properties and energy metabolism of digestion

### **LEARNING OBJECTIVES**

#### **Knowledge Based**

**LO-200-3-1** Should be able to explain which germ leaves the digestive system develops from and in which weeks of development it occurs

**LO-200-3-2** Should be able to explain anatomical, histological structures and physiological functions of organs in digestive tract

**LO-200-3-3** Should be able to explain anatomical, histological structure and physiological functions of liver and biliary tract

**LO-200-3-4** Should be able to explain the histological, anatomical structure and functions of the spleen and pancreas

**LO-200-3-5** Should be able to explain the hormones secreted from digestive system

**LO-200-3-6** Should be able to explain motor movements and secretory functions in digestive tract

**LO-200-3-7** Should be able to say the events of digestion and absorption in the small intestine

**LO-200-3-8** Should be able to explain vitamin and trace elements and energy mechanisms, regulation of body temperature

**LO-200-3-9** Should be able to tell lipid, protein and fat metabolism

**LO-200-3-10** Should be able to define thermodynamic systems, enthalpy and entropy, Heat transfer mechanisms: Heat transfer by convection, radiation and their physical formulations

**LO-200-3-11** Should be able to have a problem-based approach to diseases

#### **Application Based (practical skills)**

**LO-200-3-12** Should be able to demonstrate the ability to insert the nasogastric catheter

**LO-200-3-13** Should be able to show digestive system structures on experimental animal

**LO-200-3-14** Should be able to apply the studies in experimental subjects

#### **Skills Based (intellectual and transferable skills)**

**LO-200-3-15** Should recognize the importance of cadaver and microscope studies

**LO-200-3-16** Should recognize the importance of experimental animal in physiology education

**LO-200-3-17** Should recognize that working with a living organ or subject is a responsibility

**LO-200-3-18** Should be aware of the responsibility of behaving in a way that will not harm the living object

<b>1<sup>st</sup> WEEK</b>	<b>26.12.2022 MONDAY</b>	<b>27.12.2022 TUESDAY</b>	<b>28.12.2022 WEDNESDAY</b>	<b>29.12.2022 THURSDAY</b>	<b>30.12.2022 FRIDAY</b>
<b>08:30-09:20</b>					<b>Free Study Time</b>
<b>09:30-10:20</b>					<b>Free Study Time</b>
<b>10:30-11:20</b>					<b>Free Study Time</b>
<b>11:30-12:20</b>					<b>Free Study Time</b>
<b>13:30-14:20</b>					<b>Free Study Time</b>
<b>14:30-15:20</b>					<b>Free Study Time</b>
<b>15:30-16:20</b>					<b>Free Study Time</b>
<b>16:30-17:20</b>					<b>Free Study Time</b>

<b>2<sup>nd</sup> WEEK</b>	<b>02.01.2023 MONDAY</b>	<b>03.01.2023 TUESDAY</b>	<b>04.01.2023 WEDNESDAY</b>	<b>05.01.2023 THURSDAY</b>	<b>06.01.2023 FRIDAY English Exam</b>
<b>08:30-09:20</b>	<b>Free Study Time</b>	<b>Free Study Time</b>	<b>CSE</b>	<b>Free Study Time</b>	<b>Free Study Time</b>
<b>09:30-10:20</b>	Mouth Dr. Atalar	Mouth Dr. Atalar	<b>CSE</b>	Reciprocal regulation of glycolysis and gluconeogenesis  Dr. Bukan	<b>Free Study Time</b>
<b>10:30-11:20</b>	Mouth Dr. Atalar	Pharynx Dr. Atalar	<b>CSE</b>	Utilization of other carbohydrates to glycolithic pathway  Dr. Bukan	<b>Free Study Time</b>
<b>11:30-12:20</b>	Mouth Dr. Atalar	Oesophagus Dr. Bahçelioğlu	<b>CSE</b>	Digestion in the mouth and deglutation  Dr. Güney	<b>Free Study Time</b>
<b>13:30-14:20</b>	Digestion of carbohydrates Dr. Bukan	General principles of gastrointestinal function Dr. Güney	Gastrointestinal hormones Dr. Güney	Digestion in the mouth and deglutation Dr. Güney	<b>Free Study Time</b>
<b>14:30-15:20</b>	Aerobic and anaerobic glycolysis Dr. Bukan	General principles of gastrointestinal function Dr. Güney	Regulation of glycolysis and energetics Dr. Bukan	System: Energy and metabolic rate in biological systems Dr. Aral	<b>Free Study Time</b>
<b>15:30-16:20</b>	<b>Free Study Time</b>	<b>Elective Course</b>	Gluconeogenesis Dr. Bukan	System: Energy and metabolic rate in biological systems Dr. Aral	<b>Free Study Time</b>
<b>16:30-17:20</b>	<b>Free Study Time</b>	<b>Elective Course</b>	<b>Free Study Time</b>	<b>Free Study Time</b>	<b>Free Study Time</b>

<b>3<sup>rd</sup> WEEK</b>	<b>09.01.2023 MONDAY</b>	<b>10.01.2023 TUESDAY</b>	<b>11.01.2023 WEDNESDAY</b>	<b>12.01.2023 THURSDAY</b>	<b>13.01.2023 FRIDAY</b>
<b>08:30-09:20</b>	<b>Free Study Time</b>	<b>Free Study Time</b>	<b>Free Study Time</b>	<b>Free Study Time</b>	<b>Free Study Time</b>
<b>09:30-10:20</b>	Oral cavity, oesophagus and associated structures Dr. Yiğman	Oral cavity, oesophagus and associated structures Dr. Yiğman	The pentose phosphate pathway Dr. Dinçel	<b>Free Study Time</b>	<b>Free Study Time</b>
<b>10:30-11:20</b>	Oral cavity, oesophagus and associated structures Dr. Yiğman	Stomach Dr. Atalar	The pentose phosphate pathway Dr. Dinçel	<b>Free Study Time</b>	Gastric digestion, mechanical and chemical processes Dr. Güney
<b>11:30-12:20</b>	Anterior abdominal wall and abdominal cavity topography Dr. Atalar	Small intestine Dr. Atalar	Gastric digestion, mechanical and chemical processes Dr. Güney	<b>Free Study Time</b>	Gastric digestion, mechanical and chemical processes Dr. Güney
<b>13:30-14:20</b>	Inguinal canal Dr. Atalar	Glycogenesis and glycogenolysis Dr. Bukan	Thermodynamic systems, enthalpy and entropy: Open, close and isolated systems Dr. Aral	<b>Biochemistry Lab. 1</b>	The citric acid cycle and regulation Dr. Karakaya
<b>14:30-15:20</b>	Clinical and radiographic anatomy Dr. Bahçelioğlu	Glycogenesis and glycogenolysis Dr. Bukan	Thermodynamic systems, enthalpy and entropy: Open, close and isolated systems Dr. Aral	<b>Biochemistry Lab. 1</b>	The citric acid cycle and regulation Dr. Karakaya
<b>15:30-16:20</b>	Clinical and radiographic anatomy Dr. Bahçelioğlu	<b>Elective Course</b>	The citric acid cycle and regulation Dr. Karakaya	<b>Biochemistry Lab. 1</b>	<b>Free Study Time</b>
<b>16:30-17:20</b>	<b>Free Study Time</b>	<b>Elective Course</b>	<b>Free Study Time</b>	<b>Biochemistry Lab. 1</b>	<b>Free Study Time</b>

4 <sup>th</sup> WEEK	16.01.2023 MONDAY	17.01.2023 TUESDAY	18.01.2023 WENESDAY	19.01.2023 THURSDAY Year 3 exam	20.01.2023 FRIDAY
08:30-09:20	Biochemistry Lab. 2	<b>Free Study Time</b>	Histology Lab. 1 Anatomy Lab 1.	Anatomy Lab. 2	<b>Free Study Time</b>
09:30-10:20	Biochemistry Lab. 2	<b>Analysis of 2nd Committee Exam and Feedback</b>	Histology Lab. 1 Anatomy Lab 1.	Anatomy Lab. 2	<b>Free Study Time</b>
10:30-11:20	Biochemistry Lab. 2	Large intestine and portal vein Dr. Atalar	Histology Lab. 1 Anatomy Lab 1.	Anatomy Lab. 2	Functions of liver Dr. Güney
11:30-12:20	Biochemistry Lab. 2	Liver and biliary tract Dr. Atalar	Histology Lab. 1 Anatomy Lab 1.	Anatomy Lab. 2	Functions of liver Dr. Güney
13:30-14:20	Large intestine and portal vein Dr. Atalar	Liver and biliary tract Dr. Atalar	Liver Dr. Özkoçer	Histology Lab. 2	The respiratory chain, oxidative phosphorylation and ATP synthesis Dr. Canbolat
14:30-15:20	Alimentary canal Dr. Yiğman	Alimentary canal Dr. Yiğman	Liver Dr. Özkoçer	Histology Lab. 2	The respiratory chain, oxidative phosphorylation and ATP synthesis Dr. Canbolat
15:30-16:20	<b>Free Study Time</b>	<b>Elective Course</b>	Biologic oxidation Dr. Canbolat	Histology Lab. 2	<b>Free Study Time</b>
16:30-17:20	<b>Free Study Time</b>	<b>Elective Course</b>	Biologic oxidation Dr. Canbolat	Histology Lab. 2	<b>Free Study Time</b>

**23.01.2023-03.02.2023 SEMESTER  
HOLIDAY**



5 <sup>th</sup> WEEK	06.02.2023 MONDAY	07.02.2023 TUESDAY	08.02.2023 WENESDAY	09.02.2023 THURSDAY	10.02.2023 FRIDAY
08:30-09:20	Free Study Time	Free Study Time	Free Study Time	Anatomy Lab. 3	Free Study Time
09:30-10:20	Spleen and pancreas Dr. Atalar	Free Study Time	Mechanical and chemical events in small intestine Dr. Güney	Anatomy Lab. 3	Peritoneum Dr. Bahçelioğlu
10:30-11:20	Digestion and absorption of dietary fat Dr. Bukan	Transport and storage of fat Dr. Bukan	Energy balance and transformation Dr. Sevgili	Anatomy Lab. 3	Peritoneum Dr. Bahçelioğlu
11:30-12:20	Digestion and absorption of dietary fat Dr. Bukan	Transport and storage of fat Dr. Bukan	Regulation of body temperature Dr. Sevgili	Anatomy Lab. 3	Biosynthesis of fatty acids Dr. Karakaya
13:30-14:20	Pancreas and gallbladder Dr. Özkoçer	Exocrine functions of pancreas Dr. Güney	PBL	Histology Lab. 3	Oxidation of fatty acids Dr. Karakaya
14:30-15:20	Pancreas and gallbladder Dr. Özkoçer	Exocrine functions of pancreas Dr. Güney	PBL	Histology Lab. 3	Exercise Physiology Dr. Sevgili
15:30-16:20	Role of biles in digestion Dr. Güney	Free Study Time	PBL	Histology Lab. 3	Exercise Physiology Dr. Sevgili
16:30-17:20	Free Study Time	Free Study Time	PBL	Histology Lab. 3	Free Study Time

<b>6<sup>th</sup> WEEK</b>	<b>13.02.2023 MONDAY</b>	<b>14.02.2023 TUESDAY</b>	<b>15.02.2023 WENESDAY</b>	<b>16.02.2023 THURSDAY</b>	<b>17.02.2023 FRIDAY</b>
<b>08:30-09:20</b>	<b>Physiology Lab. 1</b>	<b>Free Study Time</b>	<b>Free Study Time</b>	<b>Anatomy Lab. 4</b>	<b>Biochemistry Lab. 3</b>
<b>09:30-10:20</b>	<b>Physiology Lab. 1</b>	Posterior abdominal Wall, abdominal aorta and inferior vena cava  Dr. Bahçelioğlu	Urea cycle, its integration with citric acid cycle  Dr. Karakaya	<b>Anatomy Lab. 4</b>	<b>Biochemistry Lab. 3</b>
<b>10:30-11:20</b>	<b>Physiology Lab. 1</b>	Heat regulation and transfer mechanisms: heat transfer by transmission, radiation  Dr Aral	Regulation of urea cycle and metabolic disorders  Dr. Karakaya	<b>Anatomy Lab. 4</b>	<b>Biochemistry Lab. 3</b>
<b>11:30-12:20</b>	<b>Physiology Lab. 1</b>	Heat regulation and transfer mechanisms: heat transfer by transmission, radiation  Dr Aral	Utilization of carbon skeletones of aminoacids in citric acid cycle  Dr. Ünal	<b>Anatomy Lab. 4</b>	<b>Biochemistry Lab. 3</b>
<b>13:30-14:20</b>	Posterior abdominal Wall, abdominal aorta and inferior vena cava  Dr. Bahçelioğlu	Synthesis, utilization and regulation of keton bodies  Dr. Kavutçu	<b>PBL</b>	<b>Histology Lab. 4</b>	Absorption and secretion of small intestine  Dr. Güney
<b>14:30-15:20</b>	Posterior abdominal Wall, abdominal aorta and inferior vena cava  Dr. Bahçelioğlu	Digestion of proteins, enzymes in stomach and intestines, effects of hormones  Dr. Karakaya	<b>PBL</b>	<b>Histology Lab. 4</b>	Absorption and secretion of small intestine  Dr. Güney
<b>15:30-16:20</b>	Synthesis transport and excretion of cholesterol  Dr. Karakaya	Transamination, oxidative deamination  Dr. Karakaya	<b>PBL</b>	<b>Histology Lab. 4</b>	Glycine synthesis, catabolis utilization of synthetic reaction  Dr. Ünal
<b>16:30-17:20</b>	<b>Free Study Time</b>	<b>Free Study Time</b>	<b>PBL</b>	<b>Histology Lab. 4</b>	<b>Free Study Time</b>

7 <sup>th</sup> WEEK	20.02.2023 MONDAY	21.02.2023 TUESDAY Year 1 exam	22.02.2023 WENESDAY	23.02.2023 THURSDAY	24.02.2023 FRIDAY
08:30-09:20	<b>Free Study Time</b>	Physiology Lab. 2	Clinical and radiographic anatomy Dr. Bahçelioğlu	Metabolism of histidine, lysine, hydroxylysine and aromatic amino acid  Dr. Ünal	<b>Biochemistry Lab. 5</b>
09:30-10:20	<b>Free Study Time</b>	Physiology Lab. 2	Clinical and radiographic anatomy Dr. Bahçelioğlu	Metabolism of histidine, lysine, hydroxylysine and aromatic amino acid  Dr. Ünal	<b>Biochemistry Lab. 5</b>
10:30-11:20	Metabolism of serine, alanine, cysteine, methionine and threonine  Dr. Ünal	Physiology Lab. 2	Metabolism of branched chain amino acids, aspartate, asparagine, glutamate, glutamine, proline, hydroxyproline, arginine  Dr. Ünal	Metabolism of nucleic acids  Dr. Canbolat	<b>Biochemistry Lab. 5</b>
11:30-12:20	Metabolism of serine, alanine, cysteine, methionine and threonine  Dr. Ünal	Physiology Lab. 2	Metabolism of branched chain amino acids, aspartate, asparagine, glutamate, glutamine, proline, hydroxyproline, arginine  Dr. Ünal	Metabolism of nucleic acids  Dr. Canbolat	<b>Biochemistry Lab. 5</b>
13:30-14:20	<b>Biochemistry Lab. 4</b>	<b>Medical English</b>	<b>PBL</b>	<b>Histology Lab. 5</b>	Metabolism of nucleic acids  Dr. Canbolat
14:30-15:20	<b>Biochemistry Lab. 4</b>	<b>Medical English</b>	<b>PBL</b>	<b>Histology Lab. 5</b>	Clinical and radiographic anatomy Dr. Bahçelioğlu
15:30-16:20	<b>Biochemistry Lab. 4</b>	<b>Elective Course</b>	<b>PBL</b>	<b>Histology Lab. 5</b>	Clinical and radiographic anatomy Dr. Bahçelioğlu
16:30-17:20	<b>Biochemistry Lab. 4</b>	<b>Elective Course</b>	<b>PBL</b>	<b>Histology Lab. 5</b>	<b>Free Study Time</b>

8 <sup>th</sup> WEEK	27.02.2023 MONDAY	28.02.2023 TUESDAY	01.03.2023 WENESDAY	02.03.2023 THURSDAY	03.03.2023 FRIDAY
08:30-09:20	<b>Free Study Time</b>	Anatomy Lab. 5	<b>CSE</b>	<b>Free Study Time</b>	<b>Free Study Time</b>
09:30-10:20	<b>Free Study Time</b>	Anatomy Lab. 5	<b>CSE</b>	Digestive system embryology Dr. Dayanır	<b>Free Study Time</b>
10:30-11:20	Functions of colon Dr. Güney	Anatomy Lab. 5	<b>CSE</b>	Biosynthesis of proteins and genetic code Dr. Canbolat	Biosynthesis of proteins and genetic code Dr. Canbolat
11:30-12:20	Regulation of feeding, obesity and starvation Dr. Sevgili	Anatomy Lab. 5	<b>CSE</b>	Biosynthesis of proteins and genetic code Dr. Canbolat	Posttranslational modifications Dr. Canbolat
13:30-14:20	Naturel potentials and electrical activities of tissues Dr. Aral	<b>Medical English</b>	<b>Biochemistry Lab. 6</b>	<b>Histology Lab. 6</b>	Digestive system embryology Dr. Dayanır
14:30-15:20	Naturel potentials and electrical activities of tissues Dr. Aral	<b>Medical English</b>	<b>Biochemistry Lab. 6</b>	<b>Histology Lab. 6</b>	Digestive system embryology Dr. Dayanır
15:30-16:20	<b>Free Study Time</b>	<b>Elective Course</b>	<b>Biochemistry Lab. 6</b>	<b>Histology Lab. 6</b>	<b>Free Study Time</b>
16:30-17:20	<b>Free Study Time</b>	<b>Elective Course</b>	<b>Biochemistry Lab. 6</b>	<b>Histology Lab. 6</b>	<b>Free Study Time</b>

<b>9<sup>th</sup> WEEK</b>	<b>06.03.2023 MONDAY</b>	<b>07.03.2023 TUESDAY</b>	<b>08.03.2023 WENESDAY</b>	<b>09.03.2023 THURSDAY</b>	<b>10.03.2023 FRIDAY</b>
<b>08:30-09:20</b>	<b>Free Study Time</b>	<b>Free Study Time</b>	<b>YEAR II APPLIED EXAM</b>	<b>YEAR II APPLIED EXAM</b>	<b>YEAR II THEORETICAL EXAM</b>
<b>09:30-10:20</b>	<b>Free Study Time</b>	<b>Free Study Time</b>	<b>YEAR II APPLIED EXAM</b>	<b>YEAR II APPLIED EXAM</b>	<b>YEAR II THEORETICAL EXAM</b>
<b>10:30-11:20</b>	<b>Free Study Time</b>	<b>Free Study Time</b>	<b>YEAR II APPLIED EXAM</b>	<b>YEAR II APPLIED EXAM</b>	<b>YEAR II THEORETICAL EXAM</b>
<b>11:30-12:20</b>	<b>Free Study Time</b>	<b>Free Study Time</b>	<b>YEAR II APPLIED EXAM</b>	<b>YEAR II APPLIED EXAM</b>	<b>YEAR II THEORETICAL EXAM</b>
<b>13:30-14:20</b>	<b>Free Study Time</b>	<b>Medical English</b>	<b>YEAR II APPLIED EXAM</b>	<b>YEAR II APPLIED EXAM</b>	<b>Free Study Time</b>
<b>14:30-15:20</b>	<b>Free Study Time</b>	<b>Medical English</b>	<b>YEAR II APPLIED EXAM</b>	<b>YEAR II APPLIED EXAM</b>	<b>Free Study Time</b>
<b>15:30-16:20</b>	<b>Free Study Time</b>	<b>Elective Course</b>	<b>YEAR II APPLIED EXAM</b>	<b>YEAR II APPLIED EXAM</b>	<b>Free Study Time</b>
<b>16:30-17:20</b>	<b>Free Study Time</b>	<b>Elective Course</b>	<b>YEAR II APPLIED EXAM</b>	<b>YEAR II APPLIED EXAM</b>	<b>Free Study Time</b>